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

22nd September 2008,

**Re: Waste Water Discharge Licence Application for the Agglomeration of
Passage West Monkstown, Co. Cork**

Dear Sir / Madam,

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

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,
- 2 Nr. CD-ROM with GIS Data, Table D.2, Table E.3 and Table F.2

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

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

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Patricia Power'.

Patricia Power
Director of Services.





Cork County Council

Wastewater Discharge Licence Application under S.I. 684 of 2007
Regulations

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Scheme / Agglomeration Name: Passage West/Monkstown

Submission Date: 22nd September 2008.



Waste Water Discharge Licence Application Form

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EPA Ref. N^o: <i>(Office use only)</i>	<input type="text"/>
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Environmental Protection Agency
PO Box 3000, Johnstown Castle Estate, Co. Wexford
Lo Call: 1890 335599 Telephone: 053-9160600 Fax: 053-9160699
Web: www.epa.ie 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. (iii) to reflect the title of Water Services Authority. Addition of new Section B.9 (ii) in order to obtain information on developments yet to contribute to the waste water works. Addition of sub-sections C.1.1 & C.1.2 in order to clarify information required for Storm water overflow and pumping stations within the works. Amend Section D.1 to include a requirement for monitoring data for influent to waste water treatment	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.

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

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

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ABOUT THIS APPLICATION FORM

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

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

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

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

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

PROCEDURES

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

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

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

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

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

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

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

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

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

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

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

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

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SECTION A: NON-TECHNICAL SUMMARY

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

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

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

A description of:

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

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

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Passage West Monkstown Wastewater Discharge Licence Application.

Section A Non Technical Summary

Description of Passage West – Monkstown Agglomeration and Collection System.

Name of Agglomeration

The agglomeration for which this application is sought is named 'Passage West – Monkstown'. The agglomeration is made up of the towns/villages of Passage West, Glenbrook and Monkstown. These adjacent coastal population centres stretch for approximately 4km along the western side of Cork Harbour and are mainly residential with little significant industrial development.

At present wastewater produced in the towns and villages in the Lower Harbour area is discharged in an untreated condition into Cork Harbour at numerous dispersed locations. While collection systems exist in Cobh, Passage West, Monkstown, Ringaskiddy, Shanbally, Carrigaline and Crosshaven, none of these systems provides complete wastewater treatment at present. There are plans in place to provide a wastewater treatment plant (WWTP) for the Lower Harbour area as part of the proposed Cork Lower Harbour Sewerage Scheme. However, the WWTP is not likely to be in place within the next 5 to 6 years. This application therefore relates only to the existing untreated discharges from the Passage West Monkstown agglomeration.

The extent of the agglomeration for the Passage West / Monkstown area is shown on Drawing 1 and Drawing 2 attached.

Discharge Points:

The collection system drains to three main outfall points.

[1] Pembroke.

All flows from the North and West of Passage West town are directed to the Pembroke outfall via a comminutor chamber near the old railway line walkway in North Passage.

[2] Glenbrook.

All flows from central Passage, Glenbrook and Carrigmahon are directed to the Glenbrook comminutor and outfall adjacent to the Glenbrook ferry slipway.

[3] Monkstown.

All flows from Monkstown are directed to a comminutor and pumping station in Monkstown Sand Quay and pumped to the Monkstown outfall in the old railway tunnel north of the village.

Comminutors are installed on these discharges to provide screening and screenings maceration. All screenings are macerated and retained in the flow.

Pumping Stations:

There are 6 submersible pumping stations within the system. Two of these are situated in Passage West, one in Glenbrook and three in Monkstown.

1. Cork Road Pumping Station.

The Cork Road Pumping Station serves the low lying catchments to the North West of the Passage West town. Constructed in the late 80's this pumping station, located in the grass verge on the Cork Road entering Passage West, consists of 2 fixed submersible speed pumps, operating on a Duty/Standby arrangement pumping at a rate of 15 litres/sec. Wastewater is pumped to the Pembroke Comminutor Station and discharge point.

2. Passage West Central Pumping Station

Passage West Central Pumping Station serves the centre of Passage West. Constructed in the early 80's, it is located in the public park near the town centre. The station includes a storm overflow at an upstream manhole. A 150mm diameter rising main discharges flow at a pump rate of approximately 19 litres/sec. The station consists of 2 fixed submersible speed pumps, operating on a Duty/Standby arrangement. Wastewater is pumped forward to the Glenbrook comminutor and discharge.

3. Glenbrook Pumping Station

Glenbrook Pumping Station serves most of the area south of the town centre, as well as pumping the flows from the Passage West Central Pumping Station to the comminutor station south of Glenbrook. Glenbrook pumping station was constructed in the early 80's. The station includes a storm overflow in the form of a weir in the inlet manhole. A 200mm diameter rising main discharges flow through approximately 290 m into the comminutor and discharge adjacent to the Glenbrook Ferry slipway. A pump rate of approximately 28 litres/sec has been established. The station has 2 fixed speed submersible pumps operating on a Duty/Standby arrangement.

4. Monkstown Pumping Station and Comminutor

The existing pumping station is located on the Sand Quay which serves as a boat yard and a slip-way for the local Sailing Club. It was constructed in the early 1980s. The station consists of a comminutor, two fixed speed submersible pumps, operating on a Duty/ Standby arrangement, with a storm overflow in the form of a weir in the inlet manhole. A pump rate of 75 l/s was established from the pump drawdown tests. A 300 mm diameter rising main discharges the flow at a manhole near the old railway tunnel north of the village.

5. Coast Road Pumping Station

The Coast Road Pumping Station takes the flow from the houses south of Monkstown village and the Buncoille Pumping Station and pumps to a gravity sewer which flows to the Monkstown Pumping Station. It was constructed in the early 1980's and includes an overflow at an upstream manhole. The station consists of 2 fixed speed submersible pumps operating on a Duty/Standby arrangement. A 150 mm diameter rising main discharges the flow at a pump rate of approximately 10 litres/sec

6. Buncoille Pumping Station

Constructed 2003 this pumping station serves 14 dwellinghouses, pumping forward to the Coast Road Pumping Station.

There are 2 pumps (duty and standby).

There is no overflow at this pumping station.

Sources of Emissions

Emissions from the Passage West Monkstown agglomeration arise mainly from the local population i.e. domestic loading. There are no significant commercial or industrial discharges. Currently, waste water from the agglomeration is discharged directly into Cork Harbour West Passage without secondary treatment.

The estimated Population Equivalent (PE) of the agglomeration is 7,600.

The PE is based on the following;

From 2008 Geodirectory:

Number of domestic properties occupied:	2,105
No of commercial with domestic properties:	94
Total domestic properties:	2,199.

Assuming occupancy rate of 3 persons per property = 6597 persons

Adding 10% for other commercial and institutional loadings = 7,256 PEs.

Pending development: approximately 1,120 residential units plus some commercial developments with a total estimated PE of 3435.

As it is Cork County Council policy that any significant developments which would have the effect of increasing discharges to the Harbour area must provide secondary treatment before discharge to the public sewer, the PE of the discharge from pending development is estimated at 10% of the PE loading i.e. = 344 PE

Therefore Total PE: $7256 + 344 = 7600$ PE.

Equivalent BOD 456 kg BOD.

There is also evidence from flow surveys that seawater infiltration - particularly during periods of high tides - and rainfall infiltration into the sewer system also contribute to the discharges.

The Nature and Quantities of Foreseeable Emissions

It is expected that the domestic loading will increase with the further development of land zoned for housing and consequent increase in population in the agglomeration. As there are no areas zoned for industrial development in the Passage West Monkstown area non domestic loading is not expected to be significant. In the short term [in the next 5 years] the PE of the agglomeration is not expected to increase above the PE of 7,600 applied for.

However, changes to the Passage West Monkstown collection system proposed under the Cork Lower Harbour Sewerage Scheme will eliminate the existing three major Discharges. Proposed upgraded or new pumping stations will be located in Passage

West, Glenbrook, Monkstown and Raffeen to pump 6 times the Dry Weather Flow (6 DWF) forward to the proposed Waste Water Treatment Plant.

Environmental Impacts.

McDonald Pettit, Consulting Engineers have prepared an Environmental Impact Statement (EIS) for the proposed wastewater treatment plant – a copy of which is included with this Wastewater Discharge Licence Application. Reference should be made to the EIS for a more detailed assessment of Environmental Impacts.

Receiving Waters – Cork Harbour

The existing discharges from the Passage West Monkstown agglomeration discharge to the West Passage of the River Lee in Cork Harbour. These discharges are downstream of the outfall from the Cork City WWTP at Carrigrenan which has a PE load of 413,000. Cork Harbour is considered to be one of the largest natural harbours in the world. It consists of two main sections: the Upper Harbour including the Lee Estuary and Lough Mahon and the Lower Harbour which are connected by an east channel and west channel. The west channel is the larger of the two and the majority of the tidal exchange volume occurs through the west channel.

The Urban Waste Water Treatment (Amendment) Regulations 2004 (SI No 440 of 2004) has designated the 'Lee Estuary/Lough Mahon – from the salmon weir (downstream of Cork City waterworks intake) to Monkstown (excluding North Channel at Great Island) as sensitive waters

Within the Lower Harbour area there are a number of protected conservation areas namely, Cork Harbour Special Protection Area (SPA) and the Great Island Channel Special Area of conservation (SAC). A number of proposed Natural Heritage Areas pNHAs are also designated including: Monkstown Creek pNHA and Owenboy River pNHA. Refer to Maps 5, 6, and 7.

According to the EPA, water quality in the Lower Harbour area is classed as 'intermediate' and water quality within Cork Harbour has exhibited an improvement over the last two years, due, in part, to the operation of Carrigrenan WWTP in 2005. Existing water quality data from the EPA indicate that there is no current negative impact on the transitional receiving waters as a result of the discharges from the agglomeration

Bathing Waters:

There are no designated bathing waters within the confines of Cork Harbour. Drawing No 3 attached is a location map showing the location of the nearest waters used by members of the public for bathing. Fountainstown beach, located outside the mouth of the harbour, is the closest designated bathing water, at a distance of approximately 14 km from the discharge points.

Bathing Water quality Map of Ireland 2007, prepared by EPA indicates that Fountainstown is compliant with EU guidelines ('good quality').

Shellfish:

There are no areas designated in Cork Harbour under the quality of Shellfish water Regulations 1994. Drawing No 4 shows the location of proposed designated shellfish

waters. Cork Lower Harbour is not designated as sensitive water under the *Quality of Shellfish Waters Regulations, 2006 (S.I. 268012006)*.

Proposed Technology and Other Techniques for Preventing or, Where This Is Not Possible, Reducing Emissions from the Waste Water Works.

Cork County Council recognises the need for improvement to the existing sewerage system and facilities. In 2000, Cork County Council appointed Consulting Engineers E G Pettit & Company to prepare a Preliminary Report and Environmental Impact Statement (EIS) for the Cork Lower Harbour Area which would make recommendations concerning the collection and treatment of wastewater from the population centres of Cobh, Passage West, Monkstown, Carrigaline and Ringaskiddy.

The Preliminary report was completed in 2002 and updated in 2004 when an Addendum Report was prepared identifying the impacts of the 2002 Census and the 2003 Cork County Development Plan. The Preliminary report was again updated in 2008. The updated preliminary report, ***Cork Harbour Main Drainage Scheme Preliminary Report March 2008***, takes account of the 2006 Census and the 2005 Local Area Plans, extends the design horizon to 2030 and incorporates the 2004 Addendum within the body of the report.

The EIS has been submitted to an Bord Pleanála in 2008, and the Preliminary Report has been submitted to the Department of Environment, Heritage and Local Government (DOEHLG) for approval. Cork County Council are currently awaiting a decision which is expected before the end of 2008.

A central part of the Cork Lower Harbour Sewerage Scheme is the proposal to provide a Wastewater Treatment Plant (WWTP) to treat all currently untreated wastewater arising in this agglomeration as well as wastewater from Ringaskiddy Village, Crosshaven, Carrigaline, Ringaskiddy Area and Cobh. The proposed WWTP is to be located in the Townland of Shanbally as shown on Drawing 1. It is proposed to discharge the treated effluent through the existing long sea outfall pipe into Cork Lower Harbour (IDA outfall).

This will result in a reduction in the number of outfall points in Cork Harbour to a single outfall point and the discharge of treated effluent, as compared to the existing scenario where untreated effluent is discharged at multiple outfalls throughout the Lower Harbour area. As a result of the WWTP and upgraded collection system, water quality in Cork Lower Harbour is expected to improve within the Lower Harbour area.

The DOEHLG and Cork County Council 2007-2009 Water Services Investment Programme identifies Cork Lower Harbour Sewerage Scheme as one of the projects identified for investment during this period.

The treatment plant proposed will have a capacity of 80,000 population equivalent and can be expected to open with a load of approx. 50,000 p.e. which allows a margin of 30,000 p.e. for future growth. The WWTP is to be constructed on a design, build, operate basis and therefore no specifics regarding the detailed design of the development are available at this stage.

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

All pumping stations and associated overflows will be designed in accordance with the Department of the Environment; Heritage and Local Government guidelines including the guideline document issued entitled *Procedures and Criteria in relation to Storm Water Overflows*. This suggests that overflows to sensitive waters should be limited to 20% of the rainfall run-off volume. The design of the following storm overflows and pump stations will be reviewed at the detailed design stage with a view to limiting the overflows to 20% of the rainfall run-off volume:

- Passage West CSO Chamber
- Passage West Central Pumping Station
- Glenbrook Pumping Station
- Monkstown Pumping Station (upstream overflow manhole)

An automated control operating system will be put in place to ensure that if a downstream pumping station fails to operate, the upstream pumping station will cease pumping.

As it is Cork County Council policy that any significant developments within the agglomeration which would have the effect of increasing discharges into Cork Harbour must provide secondary treatment before discharge to the public sewer.

Measures planned to monitor emissions into the environment

Changes to the Passage West Monkstown collection system proposed under the Cork Lower Harbour Sewerage Scheme will eliminate the existing three major Discharges from the agglomeration, as four flows will be pumped forward to the proposed WWTP. On completion of the proposed scheme emergency overflows and storm water overflows from the agglomeration will be monitored to comply with guidelines.

SECTION B: GENERAL

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

B.1 Agglomeration Details

Name of Agglomeration:	Passage West / Monkstown
-------------------------------	--------------------------

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 South
Address:	Floor 5, County Hall, Carrigrohane Road, Co. Cork.
Tel:	021-4276891
Fax:	021-4276321
e-mail:	corporate.affairs@corkcoco.ie

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

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

Name*:	Ms. Patricia Power, Director of Services, Area Operations South.
Address:	Floor 5, County Hall, Carrigrohane Road, Co. Cork.
Tel:	021-4285304
Fax:	021-4342098
e-mail:	Patricia.Power@CorkCoCo.ie

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

Co-Applicant's Details

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

*This should be the name of a water services authority, other than the lead authority, where multiple authorities are the subject of a waste water discharge (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 ($\leq A3$) 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*:	NOT APPLICABLE
Address:	
Grid ref (6E, 6N)	
Level of Treatment	
Primary Telephone:	
Fax:	
e-mail:	

*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.

Type of Discharge	355 mm OD HDPE pipe.
Unique Point Code	SW01PASS
Location	Cork Lower Harbour Townland Pembroke
Grid ref (6E, 6N)	E176559, N069260

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.

Type of Discharge	355 mm OD HDPE pipe.
Unique Point Code	SW02PASS
Location	Glenbrook Townland Lackaroe
Grid ref (6E, 6N)	E177181, N067448

Type of Discharge	355 MM OD HDPE pipe.
Unique Point Code	SW03PASS
Location	Monkstown Townland Monkstown (Castlefarm)
Grid ref (6E, 6N)	E177235, N066512

Type of Discharge	To storm system concrete pipe.
Unique Point Code	SW04PASS
Location	Passage West Townland Ardmore
Grid ref (6E, 6N)	E175621, N069656

Type of Discharge	375 mm diameter storm pipe.
Unique Point Code	SW05PASS
Location	Passage West Townland Pembroke
Grid ref (6E, 6N)	E176987, N068831

Type of Discharge	375mm diameter pipe with Non-return flap valve
Unique Point Code	SW06PASS
Location	Glenbrook Townland Lackaroe
Grid ref (6E, 6N)	E177116, N067734

Type of Discharge	300mm diameter pipe with Mitec non return Valve
Unique Point Code	SW07PASS
Location	Monkstown Townland Monkstown (Castlefarm)
Grid ref (6E, 6N)	E177114, N066095

Type of Discharge	300mm diameter pipe.
Unique Point Code	SW08PASS
Location	Monkstown Townland Monkstown (Castlefarm)
Grid ref (6E, 6N)	E176656, N065460

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.

Section B.4

Secondary Discharge Points/Emergency Overflows listed in Section B.3 were constructed as part of a pumping/comminutor station and are designed to overflow on rare occasions in the event of pump failure. However it is possible in the event of heavy rainfall if pumps cannot cater for heavy flows, these overflows may act as storm overflows. For details regarding Emergency Overflows refer to Sections B3, C1 & D1.

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	
Location	
Grid ref (6E, 6N)	

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.

Section B.5

Secondary Discharge Points/Emergency Overflows listed in Section B.3 were constructed as part of a pumping/comminutor station and are designed to overflow on rare occasions in the event of pump failure. However it is possible in the event of heavy rainfall if pumps cannot cater for heavy flows, these overflows may act as storm overflows. For details regarding Emergency Overflows refer to Sections B3, C1 & D1.

It is intended as part of the Lower Harbour Sewerage Scheme that all overflows will be designed in accordance with the Department of the Environment, Heritage and Local Government guidelines including the guideline document issued entitled *Procedures and Criteria in relation to Storm Water Overflows*. This suggests that overflows to sensitive waters should be limited to 20% of the rainfall run-off volume. The design of the following storm overflows and pump stations will be reviewed at the detailed design stage with a view to limiting the overflows to 20% of the rainfall run-off volume:

- Passage West CSO Chamber
- Passage West Central Pumping Station
- Glenbrook Pumping Station
- Monkstown Pumping Station (upstream overflow manhole)

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:	Floor 1
	County Hall
	Carrigrohane Road,
	Co. 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 No:	Not applicable. Current scheme predates requirements for Part 8 or Part 10. Planning.
--	---

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 South
Address:	Aras Slainte
	Wilton Road,
	Cork.
Tel:	021-4545011
Fax:	021-4927228
e-mail:	Not Available

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 and by way of a site notice. See *Guidance Note*.

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

Attachment 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 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	7600
Data Compiled (Year)	2008
Method	Census 2006 + House Count using 2008 Geodirectory

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.

B.9. (ii) Population Equivalent of agglomeration.

The estimated Population Equivalent (PE) of the agglomeration is 7,600.

The PE is based on the following:

From 2008 Geodirectory:

Number of domestic properties occupied: 2,105
 No of commercial with domestic properties: 94
 Total domestic properties: 2,199.

Assuming occupancy rate of 3 persons per property = 6597 persons

Adding 10% for other commercial and institutional loadings = 7,256 PEs.

Pending development: approximately 1,120 residential units plus some commercial developments with a total estimated PE of 3435.

As it is Cork County Council policy that any significant developments which would have the effect of increasing discharges to the Harbour area must provide secondary treatment before discharge to the public sewer, the PE of the discharge from pending development is estimated at 10% of the PE loading i.e. = 344 PE

Therefore Total PE: 7256 + 344 = **7600 PE.**

Equivalent BOD 456 kg BOD.

In the short term [in the next 5 years] the PE of the agglomeration is not expected to increase above the PE of 7,600 applied for.

The proposed WWTP will have a capacity of 80,000 population equivalent and can be expected to open with a load of approx. 50,000 p.e. which allows a margin of 30,000 p.e. for future growth. The WWTP is to be constructed on a design, build, operate basis and therefore no specifics regarding the detailed design of the development are available at this stage.

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 €)
2,001 < P.E. < 10,000	€25,000

Appropriate Fee Included	Yes	No
	✓	

B.10 Capital Investment Programme

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

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.

A programme of works has been prioritised for the development of infrastructure to appropriately collect, convey, treat and discharge waste water from the agglomeration. The scheme is the Cork Lower Harbour Sewerage Scheme which has been approved by the DOEHLG to start in 2009 as part of the Water Services Investment Programme. Refer to Attachment B.10.

An Environmental Impact Statement (EIS) has been submitted to an Bord Pleanála and the Preliminary Report has been submitted to the Department of Environment, Heritage and Local Government (DOEHLG) for approval.

The proposed programme for the Cork Lower Harbour Sewerage Scheme comprises of 4 contracts with estimated costs as follows:

1 Cobh	€ 20.6 m,
2 Carrigaline	€ 6.7 m
3 Passage/Monkstown/Ringaskiddy	€ 10.3 m
4. DBO Treatment Plant at Shanbally including Pumping Stations and River Crossing from Cobh	€ 54.0 m
Total	€ 91.6 m

Crosshaven works were completed under a separate contract and are already collected into Carrigaline from where the sewage is pumped forward with the Carrigaline sewage into the IDA outfall. (Refer to separate discharge licence application).
Current estimated completion date: end of 2013.

WSIP Programme for Cork County Council as published by the DOEHLG is also attached.

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.

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.

Copies of Licence Not Available. Refer to Attachment B.12

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

Attachment included	Yes	No
		✓

The following information summarises details available of existing Foreshore Licences for Passage West/Monkstown agglomeration.

Table B.10

File Ref	MS51/8/703	MS51/8/601
Deed Number	709	558
Dated	21/01/1982	26/07/1977
County	Cork	Cork
Location	Ardmore, Lackaroe, Monkstown, Pembroke	Passage West
Section	Licence	Licence
Particulars	Constructing, laying, maintaining & using 3 storm water outfall pipes & 3 outfall sewerage pipes	Laying an outfall sewerage pipe
Customer	Cork County Council	Cork County Council
Term	99 years	99 years
Effective from	21/01/1982	26/07/1977
Rental	€0.00	€0.00

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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.

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
	✓	

There is no wastewater treatment plant serving the agglomeration at present. Wastewater collected in the agglomeration is discharged to the West Passage Cork Harbour through three main outfall points, Pembroke, Glenbrook, Monkstown

[1] Pembroke. SW01PASS

All flows from the North and West of Passage West town are directed to the Pembroke outfall via a comminutor chamber near the old railway line walkway in North Passage.

[2] Glenbrook. SW02PASS

All flows from central Passage, Glenbrook and Carrigmahon are directed to the Glenbrook comminutor and outfall adjacent to the Glenbrook ferry slipway.

[3] Monkstown. SW03PASS

All flows from Monkstown are directed to a comminutor and pumping station in Monkstown Sand Quay and pumped to the Monkstown outfall in the old railway tunnel north of the village.

Comminutors are installed on these discharges to provide screening and screenings maceration. All screenings are macerated and retained in the flow.

C.1.1. Overflows.

Overflows in the system do not currently comply with the DOEHLG 'Procedures and Criteria in relation to Storm water Overflows'

The following Secondary discharges are emergency overflows from Pumping stations:

SW04PASS

Cork Road SPS

E175621

N069656

SW05PASS

Passage West Central SPS

E176987

N068831

SW06PASS

Glenbrook SPS

E177116

N067734

SW07PASS

Monkstown Comminutor Station + SPS

E177114

N066095

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SW08PASS
 Coast Road SPS
 E1776666
 N065466

As part of the improvement works proposed in the Cork Lower Harbour Sewerage Scheme all proposed overflows will be designed in accordance with the Department of the Environment, Heritage and Local Government guidelines including the guideline document issued entitled *Procedures and Criteria in relation to Storm Water Overflows*. This suggests that overflows to sensitive waters should be limited to 20% of the rainfall run-off volume. The design of the following storm overflows and pump stations will be reviewed at the detailed design stage with a view to limiting the overflows to 20% of the rainfall run-off volume:

- Passage West CSO Chamber
- Passage West Central Pumping Station
- Glenbrook Pumping Station
- Monkstown Pumping Station (upstream overflow manhole)

An automated control operating system will be put in place to ensure that if a downstream pumping station fails to operate, the upstream pumping station will cease pumping

C.1.2. Pumping Stations:

There are 6 submersible pumping stations within the system, 5 with emergency overflows. Locations are indicated on Drawings No 14, 15 16.

All pumping stations are inspected on a daily basis. In the event of a power failure at a pumping station of a duration great enough to cause storage available to be exceeded, the untreated effluent discharges through the emergency overflow instead of the designated discharge point.

1. Cork Road Pumping Station.

The Cork Road Pumping Station serves the low lying catchments to the North West of the Passage West town. Constructed in the late 1980's this pumping station, located in the grass verge on the Cork Road entering Passage West. Wastewater is pumped to the Pembroke Comminutor Station and discharge point..

Pumps: 2 fixed submersible pumps, 1 Duty, 1 Standby.

Pumping rate 15 litres/sec.

Emergency Overflow to storm system.

Overflow discharge location: Secondary discharge Point at Ardmore.

2. Passage West Central Pumping Station

Passage West Central Pumping Station serves the centre of Passage West.

Constructed in the early 1980's, it is located in the public park near the town centre. A 150 mm diameter rising main discharges flow at a pump rate of approximately 19 litres/sec. The station consists of 2 fixed submersible speed pumps, operating on a Duty/Standby arrangement. Wastewater is pumped forward to the Glenbrook comminutor and discharge.

The station includes a storm overflow at an upstream manhole to storm system.

Overflow discharge location is Secondary Discharge Point Pembroke

3. Glenbrook Pumping Station

Glenbrook Pumping Station serves most of the area south of the town centre, as well as pumping the flows from the Passage West Central Pumping Station to the comminutor station south of Glenbrook. Glenbrook pumping station was constructed in the early 1980's. A 200 mm diameter rising main discharges flow through approximately 290m into the comminutor and discharge adjacent to the Glenbrook Ferry slipway. A pump rate of approximately 28 litres/sec has been established. The station has 2 fixed speed submersible pumps operating on a Duty/Standby arrangement.

The station includes a storm overflow in the form of a weir in the inlet manhole. A 375mm Ø emergency overflow pipe is fitted with non return flap valve.

Location of overflow discharge :Secondary discharge Point at Lackaroe.

4. Monkstown Pumping Station and Comminutor

The existing pumping station is located on the Sand Quay which serves as a boat yard and a slip-way for the local Sailing Club. It was constructed in the early 1980s.

The station consists of a comminutor, two fixed speed submersible pumps, operating on a Duty/ Standby arrangement. A pump rate of 75 l/s was established from the pump drawdown tests. A 300mm diameter rising main discharges the flow at a manhole near the old railway tunnel north of the village.

There is a storm overflow in the form of a weir in the inlet manhole.

Overflow Discharge location: Secondary discharge Point at Monkstown (Castlefarm).

5. Coast Road Pumping Station

The Coast Road Pumping Station takes the flow from the houses south of Monkstown village and the Buncoille Pumping Station and pumps to a gravity sewer which flows to the Monkstown Pumping Station. It was constructed in the early 1980's.

The station consists of 2 fixed speed submersible pumps operating on a Duty/Standby arrangement. A 150mm diameter rising main discharges the flow at a pump rate of approximately 10 litres/sec

Overflow at an upstream manhole with discharge location at Secondary Discharge Point Monkstown (Castlefarm)

6. Buncoille Pumping Station

Pumps: 2 foul pumps (1 duty, 1 standby)

Pumps forward to coast road Pumping Station.

There is no emergency overflow at this pumping station.

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.

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
	√	

The collection system drains to three main outfall points.

[1] Pembroke. - Primary Discharge:

SW01PASS

355 mm OD HDPE pipe

Location: Pembroke Comminutor Station

E176554, N069258

All flows from the North and West of Passage West town are directed to the Pembroke outfall via a comminutor chamber near the old railway line walkway in North Passage.

[2] Glenbrook.

SW02PASS

355 mm OD HDPE pipe

Glenbrook Comminutor Station

E177181, N067448

All flows from central Passage, Glenbrook and Carrigmahon are directed to the Glenbrook comminutor and outfall adjacent to the Glenbrook ferry slipway.

[3] Monkstown.

SW03PASS

355 mm OD HDPE pipe

Monkstown Comminutor & Pumping Station

E177235, N066512

All flows from Monkstown are directed to a comminutor and pumping station in Monkstown Sand Quay and pumped to the Monkstown outfall in the old railway tunnel north of the village.

Comminutors are installed on these discharges to provide screening and screenings maceration. All screenings are macerated and retained in the flow.

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SECTION D: DISCHARGES TO THE AQUATIC ENVIRONMENT

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

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

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

Sources of Discharges:

Emissions from this agglomeration arise from two main sources:
Domestic Loading and Non Domestic Loading.

Domestic Loading/Emissions

Geodirectory 2008 Housing Figures indicate 2,199 occupied houses.
Using occupancy rate of 3 = 6,597 persons.

Non Domestic Loading/Emissions

No significant industry in the area. Commercial and Institutional loadings are estimated at 10% of total population = 660 persons.

Pending Developments

Estimated treated P.E of 343.

Total P.E = 7,600

Details regarding location of discharges are given in section B.3 & B.4

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

Attachment included	Yes	No
	✓	

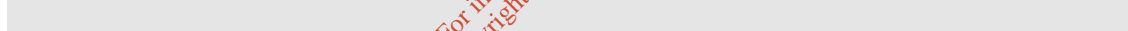
D.2 Tabular Data on Discharge Points

Applicants should submit the following information for each discharge point:

Table D.2:

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

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



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SECTION E: MONITORING

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

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

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

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.

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
SW01PASS	Primary	S	E176509	N069211	Y
SW02PASS	Secondary	S	E177151	N067461	Y
SW03PASS	Secondary	S	E177074	N066100	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 E.4 is NOT APPLICABLE

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

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

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

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

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

- Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.
- Details of all monitoring of the receiving water should be supplied via the following web based link: http://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.
- Provide details of the extent and type of ground emissions at the works. For larger discharges to groundwaters, e.g., from Integrated Constructed Wetlands, large scale percolation areas, etc., a comprehensive report must be completed which should include, inter alia, topography, meteorological data, water quality, geology, hydrology, and hydrogeology. The latter must in particular present the aquifer classification and vulnerability. The Geological Survey of Ireland Groundwater Protection Scheme Dept of the Environment and Local Government, Geological Survey of Ireland, EPA (1999) methodology should be used for any such classification. This report should also identify all surface water bodies and water wells that may be at risk as a result of the ground discharge.

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

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

Attachment included	Yes	No
	✓	

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

The existing discharges from the Passage West Monkstown agglomeration discharge to the West Passage of the River Lee in Cork Harbour. These discharges are downstream of the outfall from the Cork City WWTP at Carrigrenan which has a PE load of 413,000. Cork Harbour is considered to be one of the largest natural harbours in the world. It consists of two main sections: the Upper Harbour including the Lee Estuary and Lough Mahon and the Lower Harbour which are connected by an east channel and west channel. The west channel is the larger of the two and the majority of the tidal exchange volume occurs through the west channel.

The Urban Waste Water Treatment (Amendment) Regulations 2004 (SI No 440 of 2004) has designated the ‘Lee Estuary/Lough Mahon – from the salmon weir (downstream of Cork City waterworks intake) to Monkstown (excluding North Channel at Great Island) as sensitive waters.

Within the Lower Harbour area there are a number of protected conservation areas namely, Cork Harbour Special Protection Area (SPA) and the Great Island Channel Special Area of conservation (SAC). A number of proposed Natural Heritage Areas, pNHAs, are also designated including: Monkstown Creek pNHA and Owenboy River pNHA (refer to Maps 5, 6, and 7).

There are no water abstraction points downstream of the discharge points. According to the EPA, water quality in the Lower Harbour area is classed as 'intermediate' and water quality within Cork Harbour has exhibited an improvement over the last two years, due, in part, to the operation of Carrigrenan WWTP in 2005.

There are no designated bathing waters within the confines of the Cork Harbour. Map No 3 attached is a location map showing the location of the nearest waters used by members of the public for bathing. Fountainstown beach, located outside the mouth of the harbour, is the closest designated bathing water, at a distance of approximately 14 km from the discharge points. ‘Bathing Water Quality Map of Ireland 2007’, prepared by EPA, indicates that Fountainstown is compliant with EU guidelines (‘good quality’).

There are no areas designated in Cork Harbour under the quality of Shellfish water Regulations 1994. Map No 4 shows the location of proposed designated shellfish waters. Cork Lower Harbour is not designated as sensitive water under the Quality of Shellfish Waters Regulations, 2006 (S.I. 268012006).

Existing water quality data from the EPA indicate that there is no current negative impact on the transitional receiving waters as a result of the discharges from the agglomeration.

McDonald Pettit, Consulting Engineers have prepared an Environmental Impact Statement (EIS) for the proposed wastewater treatment plant – a copy of which is included with this Wastewater Discharge Licence Application. Reference should be made to the EIS for a more detailed assessment of Environmental Impacts:

- ‘Chapter 3 – Receiving Environment’, Volume II EIS (Page 71)
- ‘Appendix 3A - Hydrodynamic & Modelling Report’, Volume III EIS
- ‘Appendix 4A - Geophysical Report’, Volume III EIS
- ‘Appendix 4B - Bedrock Geological Survey’, Volume III EIS
- ‘Appendix 5C - Climate Change Report’, Volume III EIS

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 F.2 IS NOT APPLICABLE

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).

A programme of works has been prioritised for the developments of infrastructure to appropriately collect, convey, treat and discharge waste water from the agglomeration. The scheme is the Cork Lower Harbour Sewerage Scheme which has been approved by the DOEHLG to start in 2009 as part of the Water Services Investment Programme. Refer to Attachment B.10.

An Environmental Impact Statement (EIS) has been submitted to an Bord Pleanála and the Preliminary Report has been submitted to the Department of Environment, Heritage and Local Government (DOEHLG) for approval. The EIS forms an attachment to this application and deals in depth with the improvements that will be made to the environment as a result of the proposed WWTP.

The proposed programme comprises of 4 contracts with estimated costs as follows:

1 Cobh	€ 20.6 m,
2 Carrigaline	€ 6.7 m
3 Passage/Monkstown/Ringaskiddy	€ 10.3 m
4. DBO Treatment Plant at Shanbally including Pumping Stations and River Crossing from Cobh	€ 54.0 m
Total	€ 91.6 m

Crosshaven works were completed under a separate contract and are already collected into Carrigaline from where the sewage is pumped forward with the Carrigaline sewage into the IDA outfall (refer to separate discharge licence application). Current estimated completion date: end of 2013.

WSIP Programme for Cork County Council as published by the DOEHLG is also attached.

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

Attachment included	Yes	No
	√	

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

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

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

Attachment included	Yes	No
		√

Section G.2 is Not Applicable

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.

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
	√	

A programme of works has been prioritised for the development of infrastructure to appropriately collect, convey, treat and discharge waste water form the agglomeration. The scheme is the Cork Lower Harbour Sewerage Scheme which has been approved by the DOEHLG to start in 2009 as part of the Water Services Investment Programme. Refer to Attachment B.10.

An Environmental Impact Statement (EIS) has been submitted to an Bord Pleanala and the Preliminary Report has been submitted to the Department of Environment, Heritage and Local Government (DOEHLG) for approval.

The proposed programme comprises of 4 contracts with estimated costs as follows:

1 Cobh	€ 20.6 m,
2 Carrigaline	€ 6.7 m
3 Passage/Monkstown/Ringaskiddy	€ 10.3 m
4. DBO Treatment Plant at Shanbally including Pumping Stations and River Crossing from Cobh	€ 54.0 m
Total	€ 91.6 m

Crosshaven works were completed under a separate contract and are already collected into Carrigaline from where the sewage is pumped forward with the Carrigaline sewage into the IDA outfall. (refer to separate discharge licence application).
Current estimated completion date: end of 2013.

WSIP Programme for Cork County Council as published by the DOEHLG is also attached.

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.

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
	✓	

A programme of works has been prioritised for the development of infrastructure to appropriately collect, convey, treat and discharge waste water from the agglomeration. The scheme is the Cork Lower Harbour Sewerage Scheme which has been approved by the DOEHLG to start in 2009 as part of the Water Services Investment Programme. Refer to Attachment B.10.

An Environmental Impact Statement (EIS) has been submitted to an Bord Pleanala and the Preliminary Report has been submitted to the Department of Environment, Heritage and Local Government (DOEHLG) for approval.

The proposed programme for the Cork Lower Harbour Sewerage Scheme comprises of 4 contracts with estimated costs as follows:

1 Cobh	€ 20.6 m,
2 Carrigaline	€ 6.7 m
3 Passage/Monkstown/Ringaskiddy	€ 10.3 m
4. DBO Treatment Plant at Shanbally including Pumping Stations and River Crossing from Cobh	€ 54.0 m
Total	€ 91.6 m

Crosshaven works were completed under a separate contract and are already collected into Carrigaline from where the sewage is pumped forward with the Carrigaline sewage into the IDA outfall. (refer to separate discharge licence application).
Current estimated completion date: end of 2013.

It is intended as part of the Lower Harbour Sewerage Scheme that overflows will be designed in accordance with the Department of the Environment, Heritage and Local Government guidelines including the guideline document issued entitled *Procedures and Criteria in relation to Storm Water Overflows*. This suggests that overflows to sensitive waters should be limited to 20% of the rainfall run-off volume. The design of the following storm overflows and pump stations will be reviewed at the detailed design stage with a view to limiting the overflows to 20% of the rainfall run-off volume:

- Passage West CSO Chamber
- Passage West Central Pumping Station
- Glenbrook Pumping Station
- Monkstown Pumping Station (upstream overflow manhole)

WSIP Programme for Cork County Council as published by the DOEHLG is also attached.

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SECTION H: DECLARATION

Declaration

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

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

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

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

Signed by : 
(on behalf of the organisation)

Date : Sept 18th 08

Print signature name: Patricia Power

Position in organisation: Director of Services

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Cork County Council

Wastewater Discharge Licence Application under S.I. 684 of 2007 Regulations

Contents of Attachments

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