CLONTIBRET WASTE WATER TREATMENT WORKS

WASTE WATER DISCHARGE CERTIFICATE OF AUTHORISATION

Monaghan County Council
County Offices
The Glen
Co. Monaghan

DECEMBER 2009

This is a draft document and is subject to revision.

Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

Waste Water Discharge Certificate of Authorisation Application Form

EPA Ref. Nº: *(Office use only)*	

Environmental Protection Agency
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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	Delete reference to Design Build and Operate	To accurately reflect the information required for the small schemes programme
		Delete the requirement to provide contact information for the associated waste water treatment plant	To accurately reflect the information required and the scale of the waste water works
		Replace references to the Water Services investment Programme with the Small Schemes Programme	To accurately reflect the information required for the small schemes programme
		Update references to new legislation	To reflect changes in legislation
		Inclusion of the requirement to submit information on private WWTPs within the agglomeration.	To obtain an overview of all discharges within the agglomeration.

Environmental Protection Agency

Application for a Waste Water Discharge Certificate of Authorisation

Waste Water Discharge (Authorisation) Regulations, 2007.

CONTENTS

ABOUT THIS APPLICATION FORM

This form is for the purpose of making an application for a Waste Water Discharge 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. <u>The abbreviation "N/A" should not be used</u>.

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

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

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

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

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

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

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

SECTION A: NON-TECHNICAL SUMMARY

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

A non-technical summary of the application is to be included here. The summary should identify all environmental impacts of significance associated with the discharge of waste water associated with the waste water works. This description should also indicate, 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 Nº A.1**

Non Technical Summary

Monaghan County Council is making an application to the Environmental Protection Agency (EPA) for a Waste Water Discharge Certificate of Authorisation for the Clontibret Waste Water Treatment Plant (WWTP) and agglomeration in compliance with the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007).

Under Schedule 2 of the above regulations, the prescribed date for submission of Waste Water Discharge Licence Applications for agglomerations (with discharges with a population equivalent of less than 500 PE) is 22nd December 2009. The WWTP at Clontibret falls under this category, having an agglomeration with a design population equivalent of 150 PE.

The Waste Water Works serving the Clontibret and the immediate environs comprises a network of gravity sewers, and associated rising main and a Waste Water Treatment Works. The plant is currently overloaded with a PE of approximately 306. There are plans to construct a new treatment plant and converting the existing plant into a transfer pumping station. However this is dependent on funding.

The plant is supervised/manned for two hours Monday to Friday and for half an hour Saturdays and Sundays, giving a total of 11 hours a week.

The primary discharge of the Waste Water Works is to a tributary of the Cor River (at National Grid Reference 275451E, 330410N) in the townland of Lisglasson, County Monaghan. The associated Waste Water Treatment Plant is located at 275435E 330409N also in the townland of Lisglasson, County Monaghan.

The River Cor flows in a northerly direction along the eastern boundary of the waste water treatment plant. This water course is situated within the Neagh Bann IRBD river basin and Blackwater River catchment. The Cor River is not identified as a "sensitive" waterway under the Urban Waste Water Treatment Regulations S.I. 254 2001 nor is it classified as a "salmonid river" under S.I. 293 OF 1988. The Blackwater River, however, of which the River Cor is a tributary, is classified as "sensitive" from the confluence of the River Shambles to Newmills Bridge.

The overall River Water Framework Directive status for the Cor River is 1a, hence the water body is at risk of failing to meet good status in 2015

The treated effluent has an average BOD concentration of 34.3 mg/l and average suspended solids concentration of 32 mg/l and COD concentration of 85.5mg/l. Average concentrations of nutrients are as follows; orthophosphate 24.84 mg/l (P), average Total Phosphorus 3.6mg/l (P) and Total Nitrogen 7.5mg/l (N).

There has been no change in water quality at along the Cor River since 2006. Water quality on the River Cor has remained at Q3 since 2001 (EPA Water Quality Details).

There is an EPA monitoring station upstream and downstream of the discharge point (Br in Clontibret and the 3rd Br d/s Clontibret). A Q value of 3 was recorded upstream of the discharge point (Station No. 0600 Br in Clontibret) in 2004. A previous Q value of 3 was recorded in at this monitoring site from 1989 -2001. A Q value of 3 was recorded downstream of the discharge point (3rd Br d/s Clontibret) in 2004 2001, 1998 and 1996, with a Q value of 1 in 1989.

Monaghan County Council monitors the river directly upstream and downstream of the treatment plant (see table below)

	Upstream	Downstream
BOD (mg/l)	3.7	3.9
TSS (mg/l)	16.9	20.3
Total N (mg/l N)	3.2	3.4
Ammonia (mg/l NH_3-N	0.2	0.4
Total P (mg/l)	0.2	0.2
Ortho Phosphate (mg/l)	0.236	0.76

With regard to dangerous substances (October 2009), upstream and downstream concentrations were below the detection level for 12 of the 19 parameters. No levels upstream or downstream exceeded the standards as outlined in the Water Quality (Dangerous Substances) Regulations 2001.

Due to lack of flow data on the receiving water, the assimilative capacity was unable to be calculated. However, water quality monitoring results (EPA and Monaghan County Council Data) of the receiving water (upstream and downstream) would indicate that the Environmental Objectives contained within the Surface Water Regulations 2009 (S.I. No. 272 of 2009) are not being met both upstream or downstream of the plant. This would indicate that other sources such as rural and agricultural runoff may be contributing to quality of water upstream and downstream.

SECTION B: GENERAL

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

B.1 Agglomeration Details

Name of Agglomeration:	Clontibret

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*:	Monaghan County Council
Address:	Water Services
	County Offices
	The Glen
	Monaghan
Tel:	047 30500
Fax:	047 82739
e-mail:	info@monaghancoco.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*:	Mr Mark Johnston
Address:	Water Services
	County Offices
	The Glen
	Monaghan
Tel:	047 30500
Fax:	047 82739
e-mail:	mjohnston@monaghancoco.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
	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 (≤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*:	Matthew Lambe (Technician)
Address:	Clontibret Waste Water Treatment Plant
	Lisglasson, County Monaghan
Grid ref (6E, 6N)	275435E 330409N
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 (≤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	Open Pipe Discharge
Unique Point Code	SW1(P)
Location	Lisglasson, County Monaghan
Grid ref (6E, 6N)	275451E 330410N

Attachment B.3 should contain appropriately scaled drawings / maps (≤A3) of the discharge point, including labelled monitoring and sampling points associated with the discharge point. These drawings / maps should also be provided as geo-

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

Attachment included	Yes	No
	√	

B.4 Location of Secondary Discharge Point(s)

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

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 (≤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 (≤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:	Monaghan County Council
Address:	County Offices,
	The Glen
	Monaghan
	Co. Monaghan
Tel:	047 30500
Fax:	047 82739
e-mail:	planning@monaghancoco.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

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

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

B.7 Other Authorities

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

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

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

Within the SFADCo Area	Yes	No
		√

B.7 (ii) Health Services Executive Region

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

Name:	Health Service Executive
Address:	Regional Health Office
	HSE Dublin & North East
	Dublin Road, Kells, Co. Meath
Tel:	046 9280621
Fax:	046 9241784
e-mail:	rhodublinnortheast@mailq.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	Current PE: 306 Design PE: 150
Data Compiled (Year)	2009
Method	Property Count

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.

As stated in Chapter 3 Settlement Strategy of the Monaghan County Development Plan 2007-2013, there is 55 hectare of land within the development envelope of which approximately 32 ha are available for development. From the table below 22 hectares of land is available for residential development (70% of lands available).

Village	Lands within Dev. Envelope ha	Lands Available for Dev. ha	Lands Residential Dev. ha (70% of lands available)	Hsg. Capacity @ 15 houses per hectare
Clontibret	55	32	22	330

At low density (15 houses per hectare) it is anticipated that approximately 330 housing units could be built during the Development Plan period if all the land within the development limit was used for residential development. This could be a maximum population increase of 960 based on an average household occupancy of 2.91 (Source: Central Statistics Office Census 2006, Average number of persons per private household in permanent housing units in the Aggregate Town and Aggregate Rural areas of each Province, County and City, 2006).

Should these developments be connected to the Clontibret WWTW, this would give a PE of 1266 (worst case scenario) which would leave the treatment plant well over capacity and in need of expansion, hence requiring the Clontibret WWTW to be upgraded to accommodate this load.

It should be noted that in the current economic climate it is probable that not all the lands will be developed within the timeframe of the licence.

Planning Permissions

Monaghan County Councils ePlan was consulted with regard to planning permissions granted and conditional planning permissions from 2007-present. No additional population equivalent (p.e.) will be contributing to the waste water works as a result of planning permission granted/conditional.

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 €)
Discharges from agglomerations with a population equivalent of less than 500	€3,000

Appropriate Fee Included	Yes	No
	✓	

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.

A proposed programme of works / improvements is planned for Clontibret WwTW within next 3 years.

A new treatment plant is proposed at a different location (possibly 275560E 329830N). Old WwTW site would be retained as a transfer pumping station.

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.

There have been no Section 63 notices issued by the Agency in relation to the Clontibret Waste Water Treatment Works under the Environmental Protection Agency Acts, 1992 and 2003, as amended by Section 13 of Protection of the Environment Act, 2003.

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.

Not Applicable.

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
		√

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 (i) Clontibret Waste Water Works

The Waste Water Works serving the Clontibret and the immediate environs comprises a network of gravity sewers, and associated rising main and a Waste Water Treatment Works with a design capacity of 150 PE. The plant is currently overloaded with a PE of approximately 306.

The primary discharge of the Waste Water Works is to a tributary of the Cor River (at National Grid Reference 275451E, 330410N) in the townland of Lisglasson, County Monaghan. The associated Waste Water Treatment Plant is located at 275435E 330409N also in the townland of Lisglasson, County Monaghan.

The plant is supervised/manned for two hours Monday to Friday and for half an hour Saturdays and Sundays, giving a total of 11 hours a week.

1.1 Waste Water Treatment Plant

The current plant at Clontibret is designed to 150 PE, having been extended to include for additional treatment in 1990. It is currently serving a population equivalent estimated at 306 PE and there are plans to construct a new treatment plant and converting the existing plant into a transfer pumping station (funding dependent).

The site boundary and site plan are shown on **Drawing 2** of **Attachment B.2.** A general site arrangement and schematic flow diagram of the plant are shown **Drawing 5** and **Drawing 6** of **Attachment C.1.**

1.2 Treatment

Inlet Works

Unscreened sewage flows by gravity from the connected houses. The inlet works comprises of a flume and grit trap. Level and flow measurement is available. Flow is measured using level measurement on the flume. Flow is piped to the two settling tanks immediately adjacent to the inlet works. Hand stops are provided at the inlet works to direct the flow to either of the two tanks, or to isolate either.

Photograph 1 Inlet Works

Treatment

Two settlement tanks are located side by side. Floated sludge is trapped by an underflow baffle, preventing it from entering the zone of the v-notch weir.

Photograph 2 Settlement Tanks

The settled sewage is treated by means of a compact system, the BMS Aerotor. It is a combined fixed film reactor and active aeration system mounted on a horizontal shaft, similar in operation and process to a rotating biological contactor.

The flow passes from the Aerotor to a humus tank. Flows enter the humus tank through a diffuser drum ensuring the flow is directed evenly toward the v-notched weir.

Photograph 3 Humus Tank

Effluent passes over the v-notched weir, is collected in a channel and piped to the discharge point. A sludge draw-off is provided for settled sludge (as seen above).

Sludge

The primary settling tanks are de-sludged every two months. The sludge is tankered to Monaghan WWTP for further treatment.

Future plans for Clontibret:

A new treatment plant is proposed at a different location. The existing plant would be retained only as a transfer pumping station and network extensions would be provided to serve houses in the South-East of the village. This is funding dependent.

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.

There are no storm water overflows associated with this plant.

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.

There are no pumping stations on this network.

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.

Primary Discharge Point - SW1(P)

The primary discharge point SW1(P) discharges the River Cor (National Grid Reference 275451E 330410N) in the townland of Lisglasson, County Monaghan. The location of the discharge is shown on **Drawing 3 of Attachment B.3.** The discharge pipe is an open discharge 150mm diameter pipe, details of which are contained in **Figure 1** below.

Photograph 4 Discharge Point

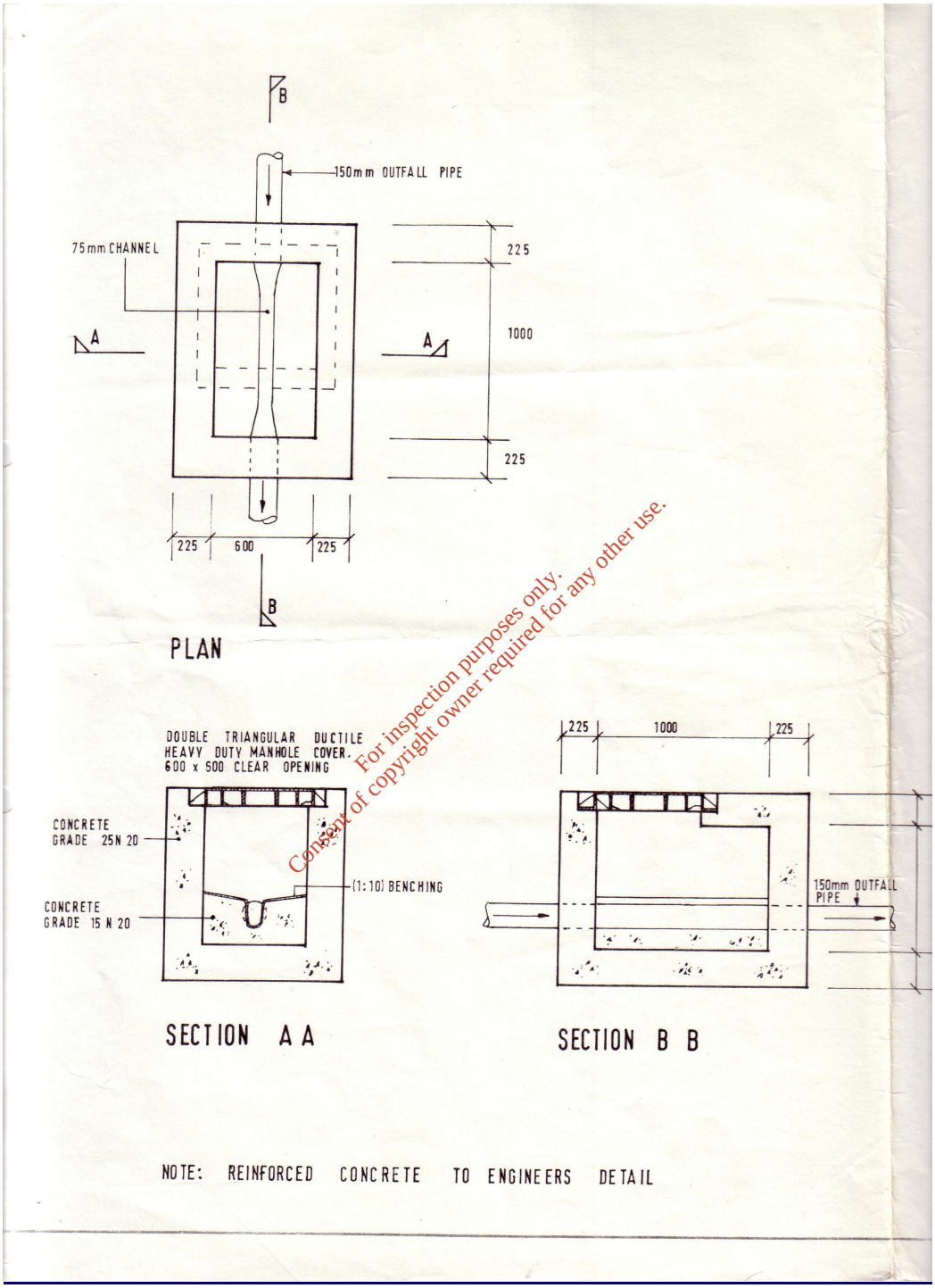

Figure 1 Discharge Point Construction Details

Environmental Monitoring & Sampling

Sampling of the primary discharge from the Clontibret Waste Water Treatment Works and the monitoring of the upstream and downstream monitoring locations are undertaken every 8 weeks.

Monaghan County Council Laboratory is on the register of approved laboratories submitting data to the EPA. This register has been compiled in compliance with Section 66 of the EPA Act 1992.

Section 66 of the Environmental Protection Agency Act 1992 provides for the establishment of an intercalibration programme for the purpose of assessing analytical performance and ensuring the validity and comparability of environmental data for laboratories which submit data to the Agency. It also provides for the establishment of a register of quality approved laboratories.

Monitoring, Sampling & Analytical Procedures

Careful collection is carried out during all sampling to ensure that the relative proportions or concentrations of all pertinent components are the same in the samples as in the materials being sampled. The samples are also handled carefully to ensure that no significant change in the composition occurs before the tests are made.

During the waste water and water sampling all personnel wear safety boots and latex gloves at all times. Due care and attention is taken at all times.

All of the sampling points are located in places that have safe means of access.

The variability of the discharges and their effects on the receiving environment has been considered in determining the sampling programme. Equipment calibration and equipment maintenance are carried out in order to ensure accurate and reliable monitoring.

Euro Environmental Services, Drogheda, Co. Louth have sampled and analysed for the dangerous substances and characterisation of emission parameters in October 2009. Details of their accreditation of analysis are included in **Attachment C.1**.

Monaghan County Council's sampling and monitoring procedures are also included in **Attachment E.2.**

Attachment included	Yes	No
	√	

SECTION D: DISCHARGES TO THE AQUATIC ENVIRONMENT

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

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

Monitoring data for the influent for 2008 and 2009 is contained in **Table D.1(i) Attachment D.1.**

Tables D.1(i)(a), (b) & **(c)** have been completed for the primary discharge are contained in **Attachment D.1**

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).

There are no discharges to groundwater.

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.

There are no independently owned/operated private waste water treatment plants operating within the agglomeration.

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
SW1(P)	Primary	Monaghan	River	River Cor	Not Designated	275451	330410

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.

An estimation of the quantity of waste water likely to be emitted in relation to the primary discharge is contained in **Table E.1(i) of Attachment E1.** Composite sampling is in place on the primary discharge.

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.

Details of any accreditation or certification of analysis should be included.

Environmental Monitoring & Sampling

Sampling of the primary discharge from the Clontibret Waste Water Treatment Works and the monitoring of the upstream and downstream monitoring locations are undertaken every 8 weeks. At present composite samples are taken of the influent and effluent and grab samples are taken for upstream and downstream monitoring points.

Monaghan County Council Laboratory is on the register of approved laboratories submitting data to the EPA. This register has been compiled in compliance with Section 66 of the EPA Act 1992.

Section 66 of the Environmental Protection Agency Act 1992 provides for the establishment of an intercalibration programme for the purpose of assessing analytical performance and ensuring the validity and comparability of environmental data for laboratories which submit

data to the Agency. It also provides for the establishment of a register of quality approved laboratories.

Monitoring, Sampling & Analytical Procedures

Careful collection is carried out during all sampling to ensure that the relative proportions or concentrations of all pertinent components are the same in the samples as in the materials being sampled. The samples are also handled carefully to ensure that no significant change in the composition occurs before the tests are made.

During the waste water and water sampling all personnel wear safety boots and latex gloves at all times. Due care and attention is taken at all times.

All of the sampling points are located in places that have safe means of access.

The variability of the discharges and their effects on the receiving environment has been considered in determining the sampling programme. Equipment calibration and equipment maintenance are carried out in order to ensure accurate and reliable monitoring.

Euro Environmental Services, Drogheda, Co. Louth have sampled and analysed for the dangerous substances and characterisation of emission parameters in 2009. Details of their accreditation of analysis are included in **Attachment C.1**.

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(P)s	Primary	S	275439	330403	N
aSW1(P)u	Primary	M	275456	330405	N
aSW1(P)d	Primary	M	275441	330435	N

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

E.4 Sampling Data

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

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

The Urban Waste Water Treatment Regulations, 2001 states that "*A sanitary authority shall ensure by 31 December 2005 that urban waste water entering a collecting system shall before discharge be subject to appropriate treatment in the following cases: a) in respect of discharges to freshwater and estuaries from agglomerations with a population equivalent of less than 2,000*"

In these regulations Appropriate Treatment refers to " *treatment of urban waste water by any process and/or disposal system which after discharge allows the receiving waters to meet the relevant quality objectives and the relevant provisions of the Directive and of other Community Directives*"

For the purposes of this assessment the standards as outlined in the regulations were used to assess the effluent quality.

The Urban Waste Water Treatment Directive 91/271/EEC sets standards for final effluent discharged to the receiving waters as follows;

- Biochemical Oxygen Demand 25 mg/L
- Chemical Oxygen Demand 125 mg/L
- Total Suspended Solids 35 mg/L

The following table shows results of samples taken in Clontibret wastewater treatment plant:

Final Effluent Results 2008/2009

Date	BOD	COD	SS
28/06/2008	**29.3**	87	**37**
28/08/2008	**32.4**	74	**42**
28/10/2008	**63.2**	82	**49**
26/11/2008	21.0	52	15
30/01/2009	**28.0**	65	21
31/03/2009	17.0	37	17
30/04/2009	24.7	66	28
30/06/2009	**45.0**	67	22
26/07/2009	**29.0**	78	35
26/08/2009	18.0	33	18
06/10/2009	**70**	**301**	**68**
Average	**34.3**	85.5	32.0

Values in Bold = Exceeding UWWT Standards

Sampling Data pertaining to the discharge are tabled in **Attachment E.4**.

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

Assessment of Impact on Receiving Surface

The Clontibret Waste Water Treatment Plant (WWTP) discharges directly into the River Cor, a tributary of the Blackwater River at NRG 275451E 330410N. The River Cor flows in a northerly direction along the eastern boundary of the waste water treatment plant. This water course is situated within the Neagh Bann IRBD River Basin and Blackwater River catchment.

The Cor River is not identified as a "sensitive" waterway under the Urban Waste Water Treatment Regulations S.I. 254 2001 nor is it classified as a "salmonid river" under S.I. 293 OF 1988. The Blackwater River, however, of which the River Cor is a tributary, is classified as "sensitive" from the confluence of the River Shambles to Newmills Bridge.

The overall River Water Framework Directive status for the Cor River is 1a, hence the water body is at risk of failing to meet good status in 2015 (Source: EPA website and Water Matters Report) (see Water Matters Reports **Attachment F.1**).

The treated effluent has an average BOD concentration of 34.3 mg/l and average suspended solids concentration of 32 mg/l and COD concentration of 85.5mg/l. Average concentrations of nutrients are as follows; orthophosphate 24.84 mg/l (P), average Total Phosphorus 3.6mg/l (P) and Total Nitrogen 7.5mg/l (N).

There has been no change in water quality at along the Cor River since 2006. Water quality on the River Cor has remained at Q3 since 2001 (EPA Water Quality Details).

There is an EPA monitoring station upstream and downstream of the discharge point (Br in Clontibret and the 3rd Br d/s Clontibret).

A Q value of 3 was recorded upstream of the discharge point (Station No. 0600 Br in Clontibret) in 2004. A previous Q value of 3 was recorded in at this monitoring site from 1989 -2001. EPA physiochemical water quality monitoring data is available at this site for 2001 to 2003. This data gave a median BOD value of 2.7mg/l, median ortho-

phosphate of 0.07mg/l, median total ammonia of 0.04mg/l and median oxidised nitrogen of 0.9mg/l.

A Q value of 3 was recorded downstream of the discharge point (3rd Br d/s Clontibret) in 2004 2001, 1998 and 1996. EPA physiochemical water quality monitoring data is available at this site for 2001 to 2003. This data gave a median BOD value of 3.3mg/l, median ortho-phosphate of 0.09mg/l, median total ammonia of 0.14mg/l and median oxidised nitrogen of 1.3mg/l.

Monaghan County Council monitors the river directly upstream and downstream of the treatment plant. These locations are shown on **Drawing 4** of **Attachment B.3**. Monitoring data collected for the year 2008 and 2009 is presented in **Tables F.1(i)a aSW1(P)u** and **aSW1(P)d**. Monitoring results for dangerous substances relate to a once-off samples collected in October 2009 and are presented in **Tables F.1(i)b aSW(P)u** and **aSW(P)d**.

Monaghan County Councils upstream and downstream results are outlined below:

	Upstream	Downstream
BOD (mg/l)	3.7	3.9
TSS (mg/l)	16.9	20.3
Total N (mg/l N)	3.2	3.4
Ammonia (mg/l NH_3-N	0.2	0.4
Total P (mg/l)	0.2	0.2
Ortho Phosphate (mg/l)	0.236	0.76

With regard to dangerous substances (October 2009), upstream and downstream concentrations were below the detection level for 12 of the 19 parameters (see **Attachment F.1**). No levels upstream or downstream exceeded the standards as outlined in the Water Quality (Dangerous Substances) Regulations 2001.

Due to lack of flow data on the receiving water, the assimilative capacity was unable to be calculated. However, water quality monitoring results (EPA and Monaghan Co Co Data) upstream and downstream of the discharge point indicate that the Environmental Objectives contained within the Surface Water Regulations 2009 (S.I. No. 272 of 2009) are not being met. This would indicate that other sources such as rural and agricultural runoff may be contributing to quality of water upstream and downstream.

Main Characteristics of the Receiving Water Body:

Characteristic	Classification	Comment
Receiving water body and Type	River	Freshwater
Resource Use	None	
Designated Area	Cor River not Designated	However, the Blackwater river is designated.
Amenity Use	None	
Applicable Regulations	Environmental Objectives (Surface Waters) Regulations 2009 Urban Waste Water Treatment Regulations	Not Compliant Not Compliant
Nearest EPA Monitoring Stations	3rd Br d/s Clontibret (downstream of treatment plant)	A Q value of 3 was recorded in 2004

Characteristic	Classification	Comment
	Br in Clontibret (upstream of treatment plant)	A Q value of 3 was recorded in 2004
Biological Quality Rating (Q value)	Q3 (upstream) Q3 (downstream)	Moderately polluted Moderately polluted
WFD Category	1a	At risk of not achieving good status by 2015
WFD Protected Area	None	

- 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.

  Monitoring of the receiving surface water has been completed for the primary discharge.

- 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.

  Not applicable

- 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.

  Not Applicable

- 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.

  Water Quality Management Plans or Catchment Management Plan

  The Neagh Bann International River Basin District (RBD) is one of three RBDs that together form the North South Shared Aquatic Resource (NS Share) Project. It was set up to implement the objectives of the Water Framework Directive in the region. This Directive is the most substantial and innovative piece of European Union water

legislation to date. It sets out a detailed framework for the protection, improvement and sustainable use of our waters (Source: Neagh Bann RBD).

A Draft River Basin Management Plan for the Neagh Bann International River Basin District, produced in accordance with the requirements of the Water Framework Directive. The Neagh Bann International River Basin District is cross-border; partly in Ireland and partly in Northern Ireland.

A copy of the summary leaflet of the Draft River Basin Management Plan for the Neagh Bann International River Basin District Plan is contained in **Attachment F.1**.

In support of the Draft River Basin Management Plan documentation, the Water Matters report is attached in **Attachment F.1** which has been generated by the Water Matters website.

Urban Waste Water Treatment Regulations 2001 (UWWT) (S.I. 254 of 2001)

The Urban Waste Water Treatment Regulations 2001 (S.I. 254 of 2001) place a responsibility on local authorities providing treatment of urban waste water to monitor the discharges to surface and ground waters.

The Urban Waste Water Treatment Regulations, 2001 states that "*A sanitary authority shall ensure by 31 December 2005 that urban waste water entering a collecting system shall before discharge be subject to appropriate treatment in the following cases: a) in respect of discharges to freshwater and estuaries from agglomerations with a population equivalent of less than 2,000*"

In these regulations Appropriate Treatments refer to "*treatment of urban waste water by any process and/or disposal system which after discharge allows the receiving waters to meet the relevant quality objectives and the relevant provisions of the Directive and of other Community Directives*".

For the purposes of this assessment the standards as outlined in the above regulations have been used to assess the effluent quality.

The receiving water is not classified as a 'sensitive' water course under the Urban Waste Water Regulations 2001(S.I 254 of 2001). The minimum standards set out in the second schedule of the regulations are shown below:

Parameters	Concentration	Minimum percentage of reduction(1)
BOD	25mg/l	70-90
COD	125mg/l	75
SS	35mg/l	90

(1) Reduction in relation to the load of the influent.

BOD

Eleven samples were taken over the period 2008-2009. The average BOD effluent value was 34mg/l (**Attachment D** and **Attachment E**). A total average percentage reduction of 75% was achieved over the above time period. This meets the minimum percentage reduction of 70-90% but the concentration of BOD is above the BOD standards of 25mg/l.

COD

Eleven samples were taken over the period 2008-2009. All show compliance with the Urban Waste Water Regulations 2001 (S.I. No.254) concentration of 125mg/l apart from one result on the 6/10/09 (see **Attachment D** and **Attachment E**). A total average percentage reduction of 86% was achieved over the above time period.

SS

Eleven samples were taken over the period 2008-2009. All show compliance with the Urban Waste Water Regulations 2001 (S.I. No.254) concentration of 35mg/l apart from one result on the 31/03/09 (see **Attachment D** and **Attachment E**). A total average percentage reduction of 86% was achieved over the above time period.

A total average percentage reduction of 86% was achieved over the above time period. This does not meet the minimum percentage reduction of 90%. An average SS concentration of 32mg/l was achieved which is just below the 35mg/l standard.

At present the existing waste water treatment plant is not fully meeting the required standards as set out in the Urban Waste Water Regulations 2001(S.I 254 of 2001) for the limits set on BOD, COD and suspended solids.

European Communities Quality of Salmonid Rivers Regulations S.I. 293/1988

The receiving water is not designed as a Salmonid River under the European Communities Quality of Salmonid Rivers Regulations S.I. 293/1988.

Water Quality (Phosphorous) Regulations 1998 (S.I. 258/1998)

The Water Quality (Phosphorous) Regulations 1998 (S.I. 258/1998) require that water quality must be improved upon or in cases of an existing high water quality this standard must be maintained. In light of this the Biological Quality (Q) rating system was assigned by the Environmental Protection Agency (EPA).

Water courses that had an unsatisfactory Q rating in 1997 were highlighted and an improvement of the Q value or median annual molybdate reactive phosphorus (MRP) values must be achieved by the deadline year 2007.

The nearest biological monitoring stations upstream and downstream of the discharge point are the Br in Clontibret (Station number 0600) and the 3rd Br d/s of Clontibret (Station number 0900) (see **Attachment G.2**).

Monaghan County Councils "Phosphate Implementation Report 2006" indicates that the 2007 MRP target value of 50ug/l was to be achieved at the both sites. This standard was achieved upstream of the discharge point where a MRP value of 40ug/l was recorded. However, this standard was not achieved downstream of the discharge point (3rd Br d/s of Clontibret (Station number 0900)) (see **Attachment G.2**).

Water Framework Directive (2000/60/EC)

The fundamental objective of the Water Framework Directive (WFD) aims at maintaining 'high status' of waters where it exists, preventing any deterioration in the existing status of waters and achieving at least 'good status' by 2015. The overall River Water Framework Directive status for the Cor River is 1b, hence possibly at risk of failing to meet good status in 2015.

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

  The level of dangerous substances both in the effluent and upstream and downstream of the discharge point as detailed in **Tables D.1** and **F.1** show a level below those in the Water Quality (Dangerous Substances) Regulations 2001 and therefore the emissions are not considered likely to impair the environment.

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

  Not Applicable

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

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

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

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

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

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

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

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

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

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

There are no designated sites in the catchment.

Emissions from the Wastewater Treatment site will not have a significant effect on any designated site. There has been no correspondence with the National Parks and Wildlife Service in connection with the existing or proposed discharge.

- 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 are no modelling details pertaining to the discharges from the agglomeration.

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
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

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

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

There are no water abstraction points downstream of the wastewater treatment plant.

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.

A programme of works / improvements is planned for Clontibret WwTW within next 3 years.

A new treatment plant is proposed at different location (possibly 275560E 329830N). Old WwTW site would be retained as a transfer pumping station. This is dependent on funding availability.

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).

Compliance Water Quality (Dangerous Substances) Regulations, 2001 (S.I. No. 12 of 2001 and Dangerous Substances Directive 2006/11/EC

The Dangerous Substances Regulations 2001 prescribe water quality standards in relation to certain substances in surface waters, e.g., rivers, lakes and tidal waters. The substances include certain pesticides (Atrazine, Simazine, and Tributyltin), solvents (Dichloromethane, Toluene, and Xylene), metals (Arsenic, Chromium, Copper, Lead, Nickel, and Zinc) and certain other compounds (Cyanide and Fluoride). The Regulations give further effect to the EU Dangerous Substances Directive (76/464/EC) and give effect to certain provisions of the EU Water Framework Directive (2000/60/EC).

Dangerous Substances have been tested on the 6/10/2009 by Euro Environmental on behalf of Monaghan County Council for the discharge. The results shown in **Tables F.1 (i) (b) and D.1 (i) (c),** show that there is no significant impact is made by the waste water treatment plant on the receiving environment.

Water Framework Directive 2000/60/EC

The Cor River has an overall risk category under the Water Framework Directive of 1b, water body is thought to be at risk of failing to meet the objective pending further investigation. This status was calculated in 2005.

Birds Directive 79/409/EEC

Discharges from the Clontibret agglomeration are not likely to have a significant effect on any site designated under the Birds Directives.

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

The WWTP will ensure compliance with the Groundwater Directive as groundwater will not be affected by the WWTP discharge.

Drinking Water Directives 80/778/EEC

There are no drinking water abstraction points downstream of the WWTP. Discharges from the WWTP do not affect any drinking abstraction points.

Urban Waste Water Treatment Directive 91/271/EEC

The Urban Waste Water Treatment Directive (91/271/EEC) and Environmental Protection Agency Act, 1992 (Urban Waste Water Treatment) Regulations, 1994 set out the timetable by which various forms of treatment and collection must to be provided for waste waters from different population equivalents.

The Urban Waste Water Treatment Regulations, 2001 (S.I. 254 of 2001), were made on 14 June 2001 and amended on 15 July 2004. The Regulations give further effect to the provisions of EU Council Directive 91/271/EEC of 21 May 1991, as amended concerning urban waste water treatment, and Water Framework Directive 2000/60/EC of 23 October 2000.

Habitats Directive 92/43/EEC

Discharges from the Clontibret agglomeration are not likely to have a significant effect on any site designated under the Habitats Directives.

Environmental Liabilities Directive 2004/35/EC

The Environmental Liability Directive aims to prevent and remedy environmental damage. The intention of this legislation is to hold operators whose activities have caused environmental damage financially liable for remedying this damage, and it aims to hold those whose activities have caused an imminent threat of environmental damage liable for taking preventive actions. There is no evidence of environmental damage caused by this WWTP.

Bathing Water Directive 76/160/EEC

The Cor River is not designated a bathing area under the Bathing Water Directive and emissions from the WWTP will not result in the contravention of the directive.

Shellfish Waters Directive (2006/113/EC)

The Clontibret WWTP discharges to an inland surface watercourse that does not support any reported bivalve and gastropod molluscs as outlined within the directive, hence the WWTP will not have any effect upon the Shellfish Directive 2006/113/EC.

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).

European Communities Environmental Objectives (Surface Waters) Regulations 2009

The European Communities Environmental Objectives (Surface Waters) Regulations 2009 have been developed for the purposes of responding further to the requirements of:

- The Water Framework Directive (2000/60/EC) which requires that all surface waters achieve 'good status' by 2015.
- The Dangerous Substances Directive (2006/11/EC – formerly 76/464/EC) on pollution caused by certain dangerous substances discharged into the aquatic environment.
- A judgment of the European Court of Justice in June 2005 in relation to the Dangerous Substances Directive.
- A proposal for a Directive of the European Parliament and of the Council on water quality standards (Common Position adopted in June 2008).

The Regulations give legal status to the criteria and standards to be used for classifying surface waters in accordance with the ecological objectives approach of the Water Framework Directive. The classification of waters is a key step in the river basin management planning process and is central to the setting of objectives and the development of programmes of measures. Waters classified as 'high' or 'good' must not be allowed deteriorate. Waters classified as less than good must be restored to at least good status within a prescribed timeframe. The environmental targets or goals and the programmes of measures to be included in river basin management plans must therefore reflect these requirements.

Water Quality Management Plans or Catchment Management Plans

The summary leaflet of the Draft River Basin Management Plan for the Neagh Bann International River Basin District summary leaflet is contained in **Attachment G.2**.

The Water Matters Report is also contained in **Attachment F.1.**

Phosphorous Regulations (S.I. No. 258 of 1998)

Monaghan County Council has no programme of improvements planned for the wastewater treatment plant at Clontibret for the term of this license application. Included in **Attachment G.2** is a report carried out by Monaghan County Council detailing the present phosphate implementation measures that are currently in place for the County.

Monaghan County Council has a responsibility under the Phosphorus Regulations 1998 (S.I. No. 258 of 1998) to maintain and/or improve surface water quality in rivers and lakes in their functional area.

Phosphorus Removal

The treatment works does not includes a facility for the removal of phosphorus. Monaghan County Council sampling upstream and downstream of the discharge point taken on 06/10/2009 indicate orthophosphate concentrations of 0.034 mg/l and 0.2 mg/l respectively. The nearest biological monitoring stations upstream and downstream of the discharge point are the Br in Clontibret (Station number 0600) and the 3rd Br d/s of Clontibret (Station number 0900) (see **Attachment G.2**).

Monaghan County Councils "Phosphate Implementation Report 2006" indicates that the 2007 MRP target value of 50ug/l was to be achieved at the both sites. This standard was achieved upstream of the discharge point where a MRP value of 40ug/l was recorded. However, this standard was not achieved downstream of the discharge point (see **Attachment G.2**).

The Council Phosphate Implementation Report 2006 is contained in **Attachment G.2.**

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.

A programme of works / improvements is planned for Clontibret WwTW within next 3 years.

A new treatment plant is proposed at different location (possibly E 275560 N 329830). Old WwTW site would be retained as a transfer pumping station.

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.

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

Attachment included	Yes	No
		√

SECTION H: DECLARATION

Declaration

I hereby make application for a waste water discharge 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: _____ **Date :** 10/12/09
(on behalf of the organisation)

Print signature name: Mairéad Johnston

Position in organisation: S.E.E

Agglomeration details

Leading Local Authority	Monaghan County Council
Co-Applicants	
Agglomeration	Clontibret Waste Water Treatment Works
Population Equivalent	150
Level of Treatment	Secondary
Treatment plant address	Lisglasson County Monaghan
Grid Ref (12 digits, 6E, 6N)	275435 / 330409
EPA Reference No:	

Contact details

Contact Name:	Mr Mark Johnston
Contact Address:	Water Services County Offices The Glen Monaghan
Contact Number:	047 30500
Contact Fax:	047 82739
Contact Email:	mjohnston@monaghancoco.ie

Table D.1(i)(a): EMISSIONS TO SURFACE/GROUND WATERS (Primary Discharge Point)

Discharge Point Code: SW-1

Local Authority Ref No:		
Source of Emission:	Clontibret Waste Water Treatment Works	
Location:	Lisglasson, County Monaghan	
Grid Ref (12 digits, 6E, 6N)	275451 / 330410	
Name of Receiving waters:	River Cor	
Water Body:	River Water Body	
River Basin District	Neagh Bann IRBD	
Designation of Receiving Waters:	Not Designated	
Flow Rate in Receiving Waters:	0	$m^3.sec^{-1}$ Dry Weather Flow
	0	$m^3.sec^{-1}$ 95% Weather Flow
Additional Comments (e.g. commentary on zero flow or other information deemed of value)	DWF or 95%ile flow of receiving water unknown. Volumes based on 306PE (Current PE) Design PE 150	

Emission Details:

(i) Volume emitted			
Normal/day	55 m^3	Maximum/day	55 m^3
Maximum rate/hour	2.29 m^3	Period of emission (avg)	60 min/hr 24 hr/day 365 day/yr
Dry Weather Flow	0.0006 m^3/sec		

Table D.1(i)(b): EMISSIONS TO SURFACE/GROUND WATERS - Characteristics of The Emission (Primary Discharge Point)

Discharge Point Code: SW-1

Substance	As discharged			
	Unit of Measurement	Sampling Method	Max Daily Avg.	kg/day
pH	pH	24 hr flow proportional	= 7.3	
Temperature	°C	24 hr flow proportional	= 13.7	
Electrical Conductivity (@ 25°C)	µS/cm	24 hr flow proportional	= 1176	
Suspended Solids	mg/l	24 hr flow proportional	= 32	1.76
Ammonia (as N)	mg/l	24 hr flow proportional	= 26.1	1.435
Biochemical Oxygen Demand	mg/l	24 hr flow proportional	= 66.5	1.89
Chemical Oxygen Demand	mg/l	24 hr flow proportional	= 25	4.7
Total Nitrogen (as N)	mg/l	24 hr flow proportional	= 1.4	0.0148
Nitrite (as N)	mg/l	24 hr flow proportional	< 0.008	0
Nitrate (as N)	mg/l	24 hr flow proportional	< 0.27	0
Total Phosphorous (as P)	mg/l	24 hr flow proportional	= 3.2	0.198
OrthoPhosphate (as P)	mg/l	24 hr flow proportional	= 11.1	0.6105
Sulphate (SO_4)	mg/l	24 hr flow proportional	= 66.5	3.657
Phenols (Sum)	µg/l	24 hr flow proportional	< 0.1	0

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper
For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

Table D.1(i)(c): DANGEROUS SUBSTANCE EMISSIONS TO SURFACE/GROUND WATERS - Characteristics of The Emission (Primary Discharge Point)

Discharge Point Code: SW-1

Substance	As discharged			
	Unit of Measurement	Sampling Method	Max Daily Avg.	kg/day
Atrazine	µg/l	24 hr flow proportional	< 0.01	0
Dichloromethane	µg/l	24 hr flow proportional	< 1	0
Simazine	µg/l	24 hr flow proportional	< 0.01	0
Toluene	µg/l	24 hr flow proportional	= 8.279	0.0000154
Tributyltin	µg/l	24 hr flow proportional	< 0.02	0
Xylenes	µg/l	24 hr flow proportional	< 1	0
Arsenic	µg/l	24 hr flow proportional	= 1.5	0.0000825
Chromium	µg/l	24 hr flow proportional	< 0.93	0
Copper	µg/l	24 hr flow proportional	= 29.1	0.0016
Cyanide	µg/l	24 hr flow proportional	< 5	0
Flouride	µg/l	24 hr flow proportional	= 700	0.0385
Lead	µg/l	24 hr flow proportional	= 0.4	0.00022
Nickel	µg/l	24 hr flow proportional	= 2.4	0.000132
Zinc	µg/l	24 hr flow proportional	= 28.3	0.00155
Boron	µg/l	24 hr flow proportional	= 131.6	0.007238
Cadmium	µg/l	24 hr flow proportional	< 0.09	0
Mercury	µg/l	24 hr flow proportional	< 0.03	0
Selenium	µg/l	24 hr flow proportional	= 1.3	0.0000715
Barium	µg/l	24 hr flow proportional	= 8.3	0.00004565

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper
For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

TABLE E.1(i): WASTE WATER FREQUENCY AND QUANTITY OF DISCHARGE – Primary and Secondary Discharge Points

Identification Code for Discharge point	Frequency of discharge (days/annum)	Quantity of Waste Water Discharged (m^3/annum)
SW-1	365	20075

TABLE E.1(ii): WASTE WATER FREQUENCY AND QUANTITY OF DISCHARGE – Storm Water Overflows

Identification Code for Discharge point	Frequency of discharge (days/annum)	Quantity of Waste Water Discharged (m^3/annum)	Complies with Definition of Storm Water Overflow

TABLE F.1(i)(a): SURFACE/GROUND WATER MONITORING

Primary Discharge Point

Discharge Point Code:	SW-1
MONITORING POINT CODE:	aSW-1d
Grid Ref (12 digits, 6E, 6N)	275441 / 330435

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	30/01/09	30/04/09	29/07/09	26/08/09			
pH					Grab	0.01	Method 4500-H+/Electrometry
Temperature					Grab	0	0
Electrical Conductivity (@ 25°C)					Grab	0.05	Method 2510 B/Electrometry
Suspended Solids	= 21	= 25	= 14	= 21	Grab	3	Method 2540 D/Filtration/Dry in 104C
Ammonia (as N)	= 0.24	= 0.45	= 0.23	= 0.19	Grab	0.06	Method 4500NH3F/Colorimetry
Biochemical Oxygen Demand	= 3.5	= 4.1	= 3.3	= 3.5	Grab	2	Method 5210 B/Electrometry
Chemical Oxygen Demand	= 32	= 33	= 33	= 31	Grab	5	Method 5220 D/Spectrophotometry
Dissolved Oxygen					Grab	0	DO Meter
Hardness (as $CaCO_3$)					Grab		Colorimetry
Total Nitrogen (as N)	= 3.56	= 3.65	= 3.54	= 3.87	Grab	1	Calculation
Nitrite (as N)					Grab	0.003	Method 4500-NO2-B/Colorimetry
Nitrate (as N)					Grab	0.09	Method 4500-NO3-H/Colorimetry
Total Phosphorous (as P)	= 0.19	= 0.19	= 0.2		Grab	0.042	Method 4500-P E/Colorimetry
OrthoPhosphate (as P)					Grab	0.004	Method 4500-P E/Colorimetry
Sulphate (SO_4)					Grab	1.39	Method 4500-SO42 E/Colorimetry
Phenols (Sum)					Grab	0.1	EPA Method 525 GCMS

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper
For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

Additional Comments:	

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	06/10/09	26/08/20					
pH	= 7.9				Grab	0.01	Method 4500-H+/Electrometry
Temperature	= 13.4				Grab	0	0
Electrical Conductivity (@ 25°C)	= 421				Grab	0.05	Method 2510 B/Electrometry
Suspended Solids	= 10				Grab	3	Method 2540 D/Filtration/Dry in 104C
Ammonia (as N)	= 1.54				Grab	0.06	Method 4500NH3F/Colorimetry
Biochemical Oxygen Demand	< 2				Grab	2	Method 5210 B/Electrometry
Chemical Oxygen Demand	= 34				Grab	5	Method 5220 D/Spectrophotometry
Dissolved Oxygen	= 3.34				Grab	0	DO Meter
Hardness (as $CaCO_3$)	= 165				Grab		Colorimetry
Total Nitrogen (as N)	= 3.86				Grab	1	Calculation
Nitrite (as N)	= 0.061				Grab	0.003	Method 4500-NO2-B/Colorimetry
Nitrate (as N)	= 1				Grab	0.09	Method 4500-NO3-H/Colorimetry
Total Phosphorous (as P)	= 0.248	= 0.25			Grab	0.042	Method 4500-P E/Colorimetry
OrthoPhosphate (as P)	= 0.2				Grab	0.004	Method 4500-P E/Colorimetry
Sulphate (SO_4)	= 22.98				Grab	1.39	Method 4500-SO42 E/Colorimetry
Phenols (Sum)	< 0.1				Grab	0.1	EPA Method 525 GCMS

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper
For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

Additional Comments:	

TABLE F.1(i)(b): SURFACE/GROUND WATER MONITORING (Dangerous Substances)

Primary Discharge Point

Discharge Point Code:	SW-1
MONITORING POINT CODE:	aSW-1d
Grid Ref (12 digits, 6E, 6N)	275441 / 330435

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	06/10/09						
Atrazine	< 0.01				Grab	0.01	USEPA Method 610 HPLC
Dichloromethane	< 1				Grab	1	USEPA Method 524 GCMS
Simazine	< 0.01				Grab	0.01	USEPA Method 610 HPLC
Toluene	< 0.28				Grab	1	USEPA Method 524.2 GCMS
Tributyltin	< 0.02				Grab	0.02	Subcontracted Test GCMS
Xylenes	< 1				Grab	1	USEPA Method 524.2 GCMS
Arsenic	= 1.4				Grab	0.96	USEPA Method 3125B ICPMS
Chromium	< 0.93				Grab	0.93	USEPA Method 3125B ICPMS
Copper	= 1.1				Grab	0.2	USEPA Method 3125B ICPMS
Cyanide	< 5				Grab	5	Hach Water Analysis Handbook 2nd Edition
Flouride	= 200				Grab	0.03	Method 4500 F - E Colorimetry
Lead	< 0.38				Grab	0.38	USEPA Method 3125B ICPMS
Nickel	= 1.9				Grab	0.47	USEPA Method 3125B ICPMS
Zinc	< 4.6				Grab	4.6	USEPA Method 3125B ICPMS
Boron	= 112.5				Grab	4.2	USEPA Method 3125B ICPMS
Cadmium	< 0.09				Grab	0.09	USEPA Method 3125B ICPMS
Mercury	< 0.03				Grab	0.2	USEPA Method 3125B ICPMS
Selenium	= 1.5				Grab	0.74	USEPA Method 3125B ICPMS

Barium	= 15.6				Grab	0.74	USEPA Method 3125B ICPMS

Additional Comments:	

TABLE F.1(i)(a): SURFACE/GROUND WATER MONITORING

Primary Discharge Point

Discharge Point Code:	SW-1
MONITORING POINT CODE:	aSW-1u
Grid Ref (12 digits, 6E, 6N)	275456 / 330405

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	30/01/09	30/04/09	29/07/09	26/08/09			
pH					Grab	0.01	Method 4500-H+/Electrometry
Temperature					Grab	0	0
Electrical Conductivity (@ 25°C)					Grab	0.5	Method 2510 B/Electrometry
Suspended Solids	= 21	= 23	= 13	= 18	Grab	3	Method 2540 D/Filtration/Dry in 104C
Ammonia (as N)	= 0.22	= 0.41	= 0.21	= 0.09	Grab	0.06	Method 4500NH3F/Colorimetry
Biochemical Oxygen Demand	= 3.4	= 3.9	= 3.2	= 3.5	Grab	2	Method 5210 B/Electrometry
Chemical Oxygen Demand	= 31	= 32	= 33	= 29	Grab	5	Method 5220 D/Spectrophotometry
Dissolved Oxygen					Grab	0	DO Meter
Hardness (as $CaCO_3$)					Grab	0	Colorimetry
Total Nitrogen (as N)			= 3.56		Grab	1	Calculation
Nitrite (as N)					Grab	0.003	Method 4500-NO2-B/Colorimetry
Nitrate (as N)					Grab	0.09	Method 4500-NO3-H/Colorimetry
Total Phosphorous (as P)	= 3.54	= 3.43	= 0.18	= 3.76	Grab	0.042	Method 4500-P E/Colorimetry
OrthoPhosphate (as P)					Grab	0.004	Method 4500-P E/Colorimetry
Sulphate (SO_4)					Grab	1.39	Method 4500-SO42 E/Colorimetry
Phenols (Sum)					Grab	0.1	EPA Method 525 GCMS

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper
For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

Additional Comments:	

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	06/10/09						
pH	= 8				Grab	0.01	Method 4500-H+/Electrometry
Temperature	= 13.3				Grab	0	0
Electrical Conductivity (@ 25°C)	= 394				Grab	0.5	Method 2510 B/Electrometry
Suspended Solids	= 12				Grab	3	Method 2540 D/Filtration/Dry in 104C
Ammonia (as N)	= 0.5				Grab	0.06	Method 4500NH3F/Colorimetry
Biochemical Oxygen Demand	< 2				Grab	2	Method 5210 B/Electrometry
Chemical Oxygen Demand	= 32				Grab	5	Method 5220 D/Spectrophotometry
Dissolved Oxygen	= 3.9				Grab	0	DO Meter
Hardness (as $CaCO_3$)	= 162				Grab	0	Colorimetry
Total Nitrogen (as N)	= 3.34				Grab	1	Calculation
Nitrite (as N)	= 0.008				Grab	0.003	Method 4500-NO2-B/Colorimetry
Nitrate (as N)	= 1.09				Grab	0.09	Method 4500-NO3-H/Colorimetry
Total Phosphorous (as P)	= 0.08				Grab	0.042	Method 4500-P E/Colorimetry
OrthoPhosphate (as P)	= 0.236				Grab	0.004	Method 4500-P E/Colorimetry
Sulphate (SO_4)	= 21.44				Grab	1.39	Method 4500-SO42 E/Colorimetry
Phenols (Sum)	< 0.1				Grab	0.1	EPA Method 525 GCMS

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper
For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

Additional Comments:	

TABLE F.1(i)(b): SURFACE/GROUND WATER MONITORING (Dangerous Substances)

Primary Discharge Point

Discharge Point Code:	SW-1
MONITORING POINT CODE:	aSW-1u
Grid Ref (12 digits, 6E, 6N)	275456 / 330405

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	06/10/09						
Atrazine	< 0.01				Grab	0.01	USEPA Method 610 HPLC
Dichloromethane	< 1				Grab	1	USEPA Method 524 GCMS
Simazine	< 0.01				Grab	0.01	USEPA Method 610 HPLC
Toluene	< 0.28				Grab	1	USEPA Method 524.2 GCMS
Tributyltin	< 0.02				Grab	0.02	Subcontracted Test GCMS
Xylenes	< 1				Grab	1	USEPA Method 524.2 GCMS
Arsenic	= 1.2				Grab	0.96	USEPA Method 3125B ICPMS
Chromium	< 0.93				Grab	0.93	USEPA Method 3125B ICPMS
Copper	= 3.3				Grab	0.2	USEPA Method 3125B ICPMS
Cyanide	< 5				Grab	5	Hach Water Analysis Handbook 2nd Edition
Flouride	= 170				Grab	0.03	Method 4500 F - E Colorimetry
Lead	< 0.38				Grab	0.38	USEPA Method 3125B ICPMS
Nickel	= 2.6				Grab	0.47	USEPA Method 3125B ICPMS
Zinc	< 4.6				Grab	4.6	USEPA Method 3125B ICPMS
Boron	= 211.8				Grab	4.2	USEPA Method 3125B ICPMS
Cadmium	< 0.09				Grab	0.09	USEPA Method 3125B ICPMS
Mercury	< 0.03				Grab	0.2	USEPA Method 3125B ICPMS
Selenium	= 2.2				Grab	0.74	USEPA Method 3125B ICPMS

Barium	= 24.1				Grab	0.74	USEPA Method 3125B ICPMS

Additional Comments:	

Annex 2: Check List For Regulation 16 Compliance

Regulation 16 of the waste water discharge (Authorisation) Regulations 2007 (S.I. No. 684 of 2007) sets out the information which must, in all cases, accompany a discharge licence application. In order to ensure that the application fully complies with the legal requirements of regulation 16 of the 2007 Regulations, all applicants should complete the following.

In each case, refer to the attachment number(s), of your application which contains(s) the information requested in the appropiate sub-article.

Regulation 16(1) **In the case of an application for a waste water discharge licence, the application shall -**		**Attachment Number**	**Checked by Applicant**
(a)	give the name, address, telefax number (if any) and telephone number of the applicant (and, if different, of the operator of any treatment plant concerned) and the address to which correspondence relating to the application should be sent and, if the operator is a body corporate, the address of its registered office or principal office,	Not Applicable	Yes
(b)	give the name of the water services authority in whose functional area the relevant waste water discharge takes place or is to take place, if different from that of the applicant,	Not Applicable	Yes
(c)	give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the location of the waste water treatment plant and/or the waste water discharge point or points to which the application relates,	Not Applicable	Yes
(d)	state the population equivalent of the agglomeration to which the application relates,	Not Applicable	Yes
(e)	specify the content and extent of the waste water discharge, the level of treatment provided, if any, and the flow and type of discharge,	Not Applicable	Yes
(f)	give details of the receiving water body, including its protected area status, if any, and details of any sensitive areas or protected areas or both in the vicinity of the discharge point or points likely to be affected by the discharge concerned, and for discharges to ground provide details of groundwater protection schemes in place for the receiving water body and all associated hydrogeological and geological assessments related to the receiving water environment in the vicinity of the discharge.	Not Applicable	Yes
(g)	identify monitoring and sampling points and indicate proposed arrangements for the monitoring of discharges and, if Regulation 17 does not apply, provide details of the likely environmental consequences of any such discharges,	Not Applicable	Yes
(h)	in the case of an existing waste water treatment plant, specify the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application,	Not Applicable	Yes
(i)	describe the existing or proposed measures, including emergency procedures, to prevent unintended waste water discharges and to minimise the impact on the environment of any such discharges,	Not Applicable	Yes
(j)	give particulars of the nearest downstream drinking water abstraction point or points to the discharge point or points,	Not Applicable	Yes
(k)	give details, and an assessment of the effects, of any existing or proposed emissions on the environment, including any environmental medium other than those into which the emissions are, or are to be made, and of proposed measures to prevent or eliminate or, where that is not practicable, to limit any pollution caused in such discharges,	Not Applicable	Yes
(l)	give detail of compliance with relevant monitoring requirements and treatment standards contained in any applicable Council Directives of Regulations,	Not Applicable	Yes
(m)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work.	Not Applicable	Yes
(n)	Any other information as may be stipulated by the Agency.	Not Applicable	Yes
Regulation 16(3) **Without prejudice to Regulation 16 (1) and (2), an application for a licence shall be accompanied by -**		**Attachment Number**	**Checked by Applicant**
(a)	a copy of the notice of intention to make an application given pursuant to Regulation 9,	Not Applicable	Yes
(b)	where appropriate, a copy of the notice given to a relevant water services authority under Regulation 13,	Not Applicable	Yes
(c)	Such other particulars, drawings, maps, reports and supporting documentation as are necessary to identify and describe, as appropriate -	Not Applicable	Yes
(c) (i)	the point or points, including storm water overflows, from which a discharge or discharges take place or are to take place, and	Not Applicable	Yes
(c) (ii)	the point or points at which monitoring and sampling are undertaken or are to be undertaken,	Not Applicable	Yes
(d)	such fee as is appropriate having regard to the provisions of Regulations 38 and 39.	Not Applicable	Yes

Regulation 16(4) An original application shall be accompanied by 2 copies of it and of all accompanying documents and particulars as required under Regulation 16(3) in hardcopy or in an electronic or other format as specified by the Agency.		Attachment Number	Checked by Applicant
1	An Original Application shall be accompanied by 2 copies of it and of all accompanying documents and particulars as required under regulation 16(3) in hardcopy or in electronic or other format as specified by the agancy.	Section B.1	Yes
Regulation 16(5) **For the purpose of paragraph (4), all or part of the 2 copies of the said application and associated documents and particulars may, with the agreement of the Agency, be submitted in an electronic or other format specified by the Agency.**		**Attachment Number**	**Checked by Applicant**
1	Signed original.	Attached	Yes
2	2 hardcopies of application provided or 2 CD versions of application (PDF files) provided.	Attached	Yes
3	1 CD of geo-referenced digital files provided.	Attached	Yes
Regulation 17 **Where a treatment plant associated with the relevant waste water works is or has been subject to the European Communities (Environmental Impact Assessment) Regulations 1989 to 2001, in addition to compliance with the requirements of Regulation 16, an application in respect of the relevant discharge shall be accompanied by a copy of an environmental impact statement and approval in accordance with the Act of 2000 in respect of the said development and may be submitted in an electronic or other format specified by the Agency**		**Attachment Number**	**Checked by Applicant**
3	2 CD versions of EIS, as PDF files, provided.	Not Applicable	Yes
1	EIA provided if applicable	Not Applicable	Yes
2	2 hardcopies of EIS provided if applicable.	Not Applicable	Yes
Regulation 24 **In the case of an application for a waste water discharge certificate of authorisation, the application shall –**		**Attachment Number**	**Checked by Applicant**
(a)	give the name, address, telefax number (if any) and telephone number of the applicant and the address to which correspondence relating to the application should be sent and, if the operator of the waste water works is a body corporate, the address of its registered office or principal office	Section B.1	Yes
(b)	give the name of the water services authority in whose functional area the relevant waste water discharge takes place or is to take place, if different from that of the applicant,	Section B.2	Yes
(c)	give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the location of the discharge point or points to which the application relates,	Sections B.2 & B.3	Yes
(d)	state the population equivalent of the agglomeration to which the application relates,	Section B.8	Yes
(e)	in the case of an application for the review of a certificate, specify the reference number given to the relevant certificate in the register,	Not Applicable	Yes
(f)	specify the content and extent of the waste water discharge, the level of treatment provided and the flow and type of discharge,	Section C.1 & F.1	No
(g)	give details of the receiving water body, its protected area status, if any, and details of any sensitive areas or protected areas, or both, in the vicinity of the discharge point or points or likely to be affected by the discharge concerned,	Section F.1 & Attachment F.1	Yes
(h)	identify monitoring and sampling points and indicate proposed arrangements for the monitoring of discharges and of the likely environmental consequences of any such discharges,	Sections E.2, E.3 & E.4 & Attachments E.2 & E.4	Yes
(i)	in the case of an existing discharge, specify the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application,	Attachment E.4	Yes
(j)	describe the existing or proposed measures, including emergency procedures, to prevent unauthorised or unexpected waste water discharges and to minimise the impact on the environment of any such discharges,	Section C.1	Yes
(k)	give particulars of the location of the nearest downstream drinking water abstraction point or points to the discharge point or points associated with the waste water works,	Section F.2 Attachment F.1	Yes
(l)	give details of any designation under any Council Directive or Regulations that apply in relation to the receiving waters,	Section F.1	Yes
(m)	give details of compliance with any applicable monitoring requirements and treatment standards,	Sections E.2 & E.4	Yes
(n)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work,	Section G.1	Yes
(o)	give any other information as may be stipulated by the Agency, and	Not Applicable	Yes
(p)	be accompanied by such fee as is appropriate having regard to the provisions of Regulations 38 and 39.	Section B.8	Yes