Section D

Discharges to the Aquatic Environment

SECTION D: DISCHARGES TO THE AQUATIC ENVIRONMENT

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

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

The applicant should address in particular all discharge points where the substances outlined in Tables D.1(i), (b) & (c) and D.1(ii), (b) & (c) of Annex 1 are emitted.

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

D.1 Discharges to Surface Waters

Details of all discharges of waste water from the agglomeration should be supplied. Tables D.1(i)(a), (b) & (c), should be completed for the primary discharge point from the agglomeration and Tables D.1(ii)(a), (b) & (c) of Annex 1 should be completed for **each** secondary discharge point, where relevant. Table D.1(iii)(a) should be completed for **each** storm water overflow. Individual Tables must be completed for each discharge point.

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

Attachment included	Yes	No
	✓	

D.2 Tabular Data on Discharge Points

Applicants should submit the following information for each discharge point:

Table D.2:

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

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

Attachment No. D.1

Discharges to Surface Waters
Details of all discharges of waste water from the agglomeration

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

Discharge Point Code: SW1

Source of Emission:	Treated Effluent
Location:	Monaghan WWTW, Tirkeenan, Monaghan
Grid Ref. (12 digit, 6E, 6N):	E: 268048 N: 333859
Name of receiving waters:	Shambles River
River Basin District:	Neagh Bann
Designation of receiving waters:	not known
Flow rate in receiving waters:	_____ $m^3.sec^{-1}$ Dry Weather Flow _____ $m^3.sec^{-1}$ 95%ile flow

Emission Details:

(i) Volume emitted 1,764,000 m^3/year			
Normal/day	4,833 m^3	Maximum/day	12,055 m^3
Maximum rate/hour	720 m^3	Period of emission (avg)	_____min/hr _____hr/day 365 day/yr
Dry Weather Flow	m^3/sec		

TABLE D.1(i)(b): EMISSIONS TO SURFACE/GROUND WATERS - Characteristics of the emission (Primary Discharge Point)

Discharge Point Code: SW1

Number	Substance	As discharged	
		Max. daily average	
1	pH	-	
2	Temperature	-	
3	Electrical Conductivity(@25°C)	-	
		Max. daily average (mg/l)	**kg/day**
4	Suspended Solids	15	72.5
5	Ammonia (as N)	63	304.5
6	Biochemical Oxygen Demand	12.2	59.0
7	Chemical Oxygen Demand	70	338.3
8	Total Nitrogen (as N)	31.6	152.7
9	Nitrite (as N)	-	-
10	Nitrate (as N)	-	-
11	Total Phosphorus (as P)	3.2	15.5
12	Orthophosphate (as P)[Note 1]	1.6	7.7
13	Sulphate (SO_4)	-	-
14	Phenols (sum) [Note 2] (ug/l)	-	-

Note 1: For waste water samples this monitoring should be undertaken on a sample filtered on 0.45µm filter paper.
Note 2: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

TABLE D.1(i)(c): DANGEROUS SUBSTANCE EMISSIONS TO SURFACE/GROUND WATERS

Primary Discharge Point - Characteristics of the emission

Discharge Point Code: SW1

Number	Substance	As discharged		
		Max. daily average (µg/l)	kg/day	kg/year
1	Atrazine	<0.01		
2	Dichloromethane	<1		
3	Simazine	<0.01		
4	Toluene	<1		
5	Tributyltin	<0.05		
6	Xylenes	<1		
7	Arsenic	1		
8	Chromium	3		
9	Copper	16		
10	Cyanide	5		
11	Fluoride	<0.09		
12	Lead	4		
13	Nickel	4		
14	Zinc	21.3		
15	Boron	324		
16	Cadmium	<0.09		
17	Mercury	22.9		
18	Selenium	2		
19	Barium	46		

TABLE D.1(ii)(a): EMISSIONS TO SURFACE/GROUND WATERS
(Secondary Discharge Point) (1 table per discharge point)

Discharge Point Code: SW2

Source of Emission:	Settled, mixed storm water and sewage (emergency overflow)
Location:	Monaghan WWTW, Tirkeenan, Monaghan
Grid Ref. (12 digit, 6E, 6N):	E: 268845 N: 333776
Name of receiving waters:	Shambles River
River Basin District:	Neagh Bann
Designation of receiving waters:	not known
Flow rate in receiving waters:	_____ $m^3.sec^{-1}$ Dry Weather Flow _____ $m^3.sec^{-1}$ 95%ile flow

Emission Details:

(i) Volume emitted			
Normal/day	m^3	Maximum/day	m^3
Maximum rate/hour	m^3	Period of emission (avg)	_____min/hr _____hr/day _____day/yr
Dry Weather Flow	m^3/sec		

TABLE D.1(ii)(b): EMISSIONS TO SURFACE/GROUND WATERS - Characteristics of the emission (1 table per discharge point)
(Secondary Discharge Point)

Discharge Point Code: Not monitored

Number	Substance	As discharged	
		Max. daily average	
1	pH		
2	Temperature		
3	Electrical Conductivity (@25°C)		
		Max. daily average (mg/l)	**kg/day**
4	Suspended Solids		
5	Ammonia (as N)		
6	Biochemical Oxygen Demand		
7	Chemical Oxygen Demand		
8	Total Nitrogen (as N)		
9	Nitrite (as N)		
10	Nitrate (as N)		
11	Total Phosphorus (as P) Note 1		
12	Orthophosphate (as P)		
13	Sulphate (SO_4)		
14	Phenols (sum) Note 2 (ug/l)		

Note 1: For waste water samples this monitoring should be undertaken on a sample filtered on 0.45µm filter paper.
Note 2: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

TABLE D.1(ii)(c): DANGEROUS SUBSTANCE EMISSIONS TO SURFACE/GROUND WATERS

Secondary Discharge Point - Characteristics of the emission (1 table per discharge point)

Discharge Point Code: Not monitored

Number	Substance	As discharged		
		Max. daily average (µg/l)	kg/day	kg/year
1	Atrazine			
2	Dichloromethane			
3	Simazine			
4	Toluene			
5	Tributyltin			
6	Xylenes			
7	Arsenic			
8	Chromium			
9	Copper			
10	Cyanide			
11	Fluoride			
12	Lead			
13	Nickel			
14	Zinc			
15	Boron			
16	Cadmium			
17	Mercury			
18	Selenium			
19	Barium			

TABLE D.1(ii)(a): EMISSIONS TO SURFACE/GROUND WATERS
(Secondary Discharge Point) (1 table per discharge point)

Discharge Point Code: SW3

Source of Emission:	
Location:	Old Cross Square PS, Monaghan
Grid Ref. (12 digit, 6E, 6N):	E: 267405 N: 333531
Name of receiving waters:	Shambles River
River Basin District:	Neagh Bann
Designation of receiving waters:	not known
Flow rate in receiving waters:	_____ $m^3.sec^{-1}$ Dry Weather Flow _____ $m^3.sec^{-1}$ 95%ile flow

Emission Details:

(i) Volume emitted			
Normal/day	m^3	Maximum/day	m^3
Maximum rate/hour	m^3	Period of emission (avg)	_____min/hr _____hr/day _____day/yr
Dry Weather Flow	m^3/sec		

TABLE D.1(ii)(b): EMISSIONS TO SURFACE/GROUND WATERS - Characteristics of the emission (1 table per discharge point)
(Secondary Discharge Point)

Discharge Point Code: Not monitored

Number	Substance	As discharged	
		Max. daily average	
1	pH		
2	Temperature		
3	Electrical Conductivity (@25°C)		
		Max. daily average (mg/l)	**kg/day**
4	Suspended Solids		
5	Ammonia (as N)		
6	Biochemical Oxygen Demand		
7	Chemical Oxygen Demand		
8	Total Nitrogen (as N)		
9	Nitrite (as N)		
10	Nitrate (as N)		
11	Total Phosphorus (as P) Note 1		
12	Orthophosphate (as P)		
13	Sulphate (SO_4)		
14	Phenols (sum) Note 2 (ug/l)		

Note 1: For waste water samples this monitoring should be undertaken on a sample filtered on 0.45µm filter paper.
Note 2: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

TABLE D.1(ii)(c): DANGEROUS SUBSTANCE EMISSIONS TO SURFACE/GROUND WATERS

Secondary Discharge Point - Characteristics of the emission (1 table per discharge point)

Discharge Point Code: Not monitored

Number	Substance	As discharged		
		Max. daily average (µg/l)	kg/day	kg/year
1	Atrazine			
2	Dichloromethane			
3	Simazine			
4	Toluene			
5	Tributyltin			
6	Xylenes			
7	Arsenic			
8	Chromium			
9	Copper			
10	Cyanide			
11	Fluoride			
12	Lead			
13	Nickel			
14	Zinc			
15	Boron			
16	Cadmium			
17	Mercury			
18	Selenium			
19	Barium			

TABLE D.1(iii)(a): EMISSIONS TO SURFACE/GROUND WATERS
(Storm Water Overflow) (1 table per discharge point)

Discharge Point Code: ***SW4***

Source of Emission:	Combined Sewer Overflow
Location:	Old Cross Square
Grid Ref. (12 digit, 6E, 6N):	E: 267536 N: 333637
Name of receiving waters:	Shambles River
River Basin District:	Neagh Bann
Designation of receiving waters:	not known
Flow rate in receiving waters:	_____$m^3.sec^{-1}$ Dry Weather Flow _____$m^3.sec^{-1}$ 95%ile flow

Emission Details:

(i) Volume emitted			
Normal/day	m^3	Maximum/day	m^3
Maximum rate/hour	m^3	Period of emission (avg)	_____min/hr _____hr/day _____day/yr

Discharge Point Code: SW5

Source of Emission:	Combined Sewer Overflow
Location:	Dawson Street
Grid Ref. (12 digit, 6E, 6N):	E: 267123 N: 333596
Name of receiving waters:	Shambles River
River Basin District:	Neagh Bann
Designation of receiving waters:	not known
Flow rate in receiving waters:	_____ $m^3.sec^{-1}$ Dry Weather Flow _____ $m^3.sec^{-1}$ 95%ile flow

Emission Details:

(i) Volume emitted			
Normal/day	m^3	Maximum/day	m^3
Maximum rate/hour	m^3	Period of emission (avg)	_____min/hr _____hr/day _____day/yr

Discharge Point Code: SW6

Source of Emission:	Combined Sewer Overflow
Location:	Park Street
Grid Ref. (12 digit, 6E, 6N):	E: 266996 N: 333605
Name of receiving waters:	Shambles River
River Basin District:	Neagh Bann
Designation of receiving waters:	not known
Flow rate in receiving waters:	_____ $m^3.sec^{-1}$ Dry Weather Flow _____ $m^3.sec^{-1}$ 95%ile flow

Emission Details:

(i) Volume emitted			
Normal/day	m^3	Maximum/day	m^3
Maximum rate/hour	m^3	Period of emission (avg)	_____min/hr _____hr/day _____day/yr

Discharge Point Code: SW7

Source of Emission:	Combined Sewer Overflow
Location:	Market Road
Grid Ref. (12 digit, 6E, 6N):	E: 267045 N: 333500
Name of receiving waters:	Shambles River
River Basin District:	Neagh Bann
Designation of receiving waters:	not known
Flow rate in receiving waters:	_____ $m^3.sec^{-1}$ Dry Weather Flow _____ $m^3.sec^{-1}$ 95%ile flow

Emission Details:

(i) Volume emitted			
Normal/day	m^3	Maximum/day	m^3
Maximum rate/hour	m^3	Period of emission (avg)	_____min/hr _____hr/day _____day/yr

Discharge Point Code: SW8

Source of Emission:	Combined Sewer Overflow
Location:	Coothill Road
Grid Ref. (12 digit, 6E, 6N):	E: 267324 N: 332645
Name of receiving waters:	Shambles River
River Basin District:	Neagh Bann
Designation of receiving waters:	not known
Flow rate in receiving waters:	_____ $m^3.sec^{-1}$ Dry Weather Flow _____ $m^3.sec^{-1}$ 95%ile flow

Emission Details:

(i) Volume emitted			
Normal/day	m^3	Maximum/day	m^3
Maximum rate/hour	m^3	Period of emission (avg)	_____min/hr _____hr/day _____day/yr

Attachment No. D.2

Tabular Data on Discharge Points

PT_CD	PT_TYPE	LA_NAME	RWB_TYPE	RWB_NAME	DESIGNATION	EASTING	NORTHING
Point Code Provide label ID's	Point Type (e.g., Primary/ Secondary/ Storm Water Overflow)	Local Authority Name (e.g., Donegal County Council)	Receiving Water Body Type (e.g., River, Lake, Groundwater, Transitional, Coastal)	Receiving Water Body Name (e.g., River Suir)	Protected Area Type (e.g., SAC, candidate SAC, NHA, SPA etc.)	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference
SW1	Primary Discharge	Monaghan County Council	Shambles River	Neagh Bann	not known	268048	333859
SW2	Secondary Discharge	Monaghan County Council	Shambles River	Neagh Bann	not known	267845	333776
SW3	Secondary Discharge	Monaghan County Council	Shambles River	Neagh Bann	not known	267405	333531
SW4	Combined Sewer Overflow	Monaghan County Council	Shambles River	Neagh Bann	not known	267536	333637
SW5	Combined Sewer Overflow	Monaghan County Council	Shambles River	Neagh Bann	not known	267123	333596
SW6	Combined Sewer Overflow	Monaghan County Council	Shambles River	Neagh Bann	not known	266996	333605
SW7	Combined Sewer Overflow	Monaghan County Council	Shambles River	Neagh Bann	not known	267045	333500
SW8	Combined Sewer Overflow	Monaghan County Council	Shambles River	Neagh Bann	not known	267324	333645

Section E

Monitoring

SECTION E MONITORING

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

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

Provide an estimation of the quantity of waste water likely to be emitted in relation to all primary and secondary discharge points applied for. This information should be included in Table E.1(i) of the Annex. The primary discharge shall be annotated with a **(P)**.

Provide an estimation of the quantity of waste water likely to be emitted in relation to all storm water overflows within the agglomeration applied for. This information should be included in Table E.1(ii) of the Annex.

E.2. Monitoring and Sampling Points

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

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

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

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

Attachment E.2 should contain any supporting information.

Attachment included	Yes	No
	✓	

E.3. Tabular data on Monitoring and Sampling Points

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

PT_CD	PT_TYPE	MON_TYPE	EASTING	NORTHING	VERIFIED
Point Code Provide label ID's assigned in section E of application	Point Type (e.g., Primary, Secondary, Storm Water Overflow)	Monitoring Type M = Monitoring S = Sampling	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference	Y = GPS used N = GPS not used

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, D.2 and F.2.

E.4 Sampling Data

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

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

Attachment E.4 should contain any supporting information.

Attachment included	**Yes**	**No**
	✓	

Attachment No. E1

Waste Water Discharge Frequency and Quantities
Primary and Secondary Discharge Points

TABLE E.1(i): WASTE WATER FREQUENY 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)
SW1 (P)	365	@@@
SW2	assumed 6 times	not known
SW3	assumed 6 times	not known

TABLE E.1(ii): WASTE WATER FREQUENY 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
SW4	not known	not known	Yes
SW5	not known	not known	Yes
SW6	not known	not known	Yes
SW7	not known	not known	Yes
SW8	not known	not known	Yes
SW9	not known	not known	Yes
SW10	not known	not known	Yes

Attachment No. E2

Monitoring and Sampling Points
Programmes for environmental monitoring

SAMPLING PROCEDURES

Revision History	
Rev. No.	**Reason for Revision**
00	Initial Release

Circulation List		
Name	**Signature**	**Date**

1. SAFETY PRECAUTIONS

The following safety precautions shall be followed at all times:

1. 1. Sampling using Boats

Always wear a lifejacket while boating on waters of any kind.
Always wear non-slip footwear (studded waders should not be worn).
Always have more than one person on board. At least one person must be fully familiar with boating techniques and competent to handle the boat.

1. 2. Sampling in Water

Operations requiring personnel to enter water that is more than knee deep or where the water velocity is sufficiently fast (e.g. flood conditions) or where the substratum is slippery or unstable notwithstanding the depth of water, should be carried out by a team of two or more people. Biological sampling should never be carried out under flood conditions.

1. 3. Sampling from Road Bridges

Always exercise care when taking water samples from road bridges irrespective of width and ensure vehicles are parked in suitable parking spaces. Reflective clothing should be worn even in full daylight.

1. 4. Sampling after Dark

If taking samples during the hours of darkness, this should always be done by a team of two people, properly equipped with reflective clothing and adequate lighting for samples from road bridges and further equipped with lifejackets if sampling from river banks. If sampling in a river, one person should remain on shore adjacent to the sampler and in a position to offer immediate assistance if required. The use of a lifeline is recommended.

1. 5. Sampling of effluents/polluted waters

When sampling domestic, agricultural, industrial or sewage discharges or when taking samples from suspect or polluted rivers protective gloves should be worn. All cuts/abrasions should be covered and antiseptic wipes should be used to clean exposed parts of the skin after sampling.

2. 1. Sampling devices

Any sampling devices used e.g. buckets, depth samplers, telescopic samplers etc. must be clean before use and should if possible be rinsed with an aliquot of the material to be sampled before the final sample is taken.

2. 2. Sample Containers

The appropriate container must be used for each type of analysis required. Sample containers must be chemically clean or sterile as required and should be filled as follows:

General chemical parameters: 1 or 2 litre plastic bottle – rinse bottle and cap with sample.

Coliforms, Total Counts, Faecal Streptococci : Sterile 300ml glass bottle containing sodium thiosulphate - DO NOT RINSE

Oil/Diesel (DRO's, TPH's): 1 litre glass bottle – DO NOT RINSE

Volatile Organic Compounds: 40ml amber bottle with added ascorbic acid - DO NOT RINSE and fill to overflowing with no air space

Pesticides & other organics: 2 x 1 litre amber glass bottles - DO NOT RINSE

If Phenols or cyanides are required the sample must be returned to the lab within 4 hours of sampling in order to properly preserve the sample.

3. 1. Sampling from Rivers/streams following a pollution incident

If a probable source of the pollution has been ascertained, the river samples should be taken in the following order:- downstream sample, upstream sample and discharge. The downstream sample should be taken at the end of the mixing zone (where the pollution stream is fully mixed with the main body of the water). This can be easy to see if the discharge is very discoloured but can be difficult to establish for clearer discharges. DO measurements taken across the width of the stream/river can help map the presence of the plug of pollution. If necessary more than one downstream sample should be taken. Every effort should be made to ensure no mud/bottom debris is taken up with the water sample as this can affect the analytical results. The sampling container should be rinsed with an aliquot of sample which is then discarded. Take care when discarding this initial sample not to disturb the bottom sediment. Refill the sampling container, rinse the sample bottle if specified above and then fill with sample. DO and temperature should be measured if required either in the stream itself or in the sampling container (bucket) and the details recorded. The sample bottle should be unambiguously marked with the sample location details and a record kept of the date and time of sampling. If a microbiological sample is required, immerse the bottle under the surface of the water before removing the cap and re-stopper under water. If the discharge is from a point source e.g. pipe, manhole, it is possible to estimate a rough flow rate/volume by timing how long it takes to fill the bucket/sample container. If the sample is taken from a specific premises with an unambiguously polluting discharge and a prosecution is envisaged, a duplicate sample should be offered to the polluter for private analysis.

3. 2. Sampling Drinking Water

It is usual to take drinking water samples from taps in private houses/public buildings etc. at various locations along a distribution system and not directly at the water treatment plant. It is important to ensure that the water sampled is coming directly from the mains supply and not from a holding tank/hot water tank. Samples should not be taken from mixer taps as there is a possibility of cross contamination from the hot water system. The tap should be thoroughly sterilised using either a flame or sterile wipes/spray and then left to run for

3. 2. Sampling Drinking Water - continued

several minutes to ensure a fresh sample. Usually a microbiological sample and a chemical sample are taken for analysis. A sterile sampling bottle must be used for the microbiological sample and care should be taken when sampling to ensure that the sample is taken aseptically. Do not rinse the sterile bottle as it contains a chemical to destroy any chlorine present in the water. The chemical sample bottle may be rinsed with the sample and then filled. Both bottles should be clearly and unambiguously marked.

4.1. Laboratory Requirements

The laboratory should be notified in advance that it is planned to take samples especially if it is necessary that the samples be analysed on the day taken (e.g. Friday). If the laboratory has been notified and subsequently no samples are taken, it is also important that the laboratory be informed, otherwise they may be holding up some analyses to wait for the samples to arrive. If it will not be possible to deliver the samples within normal working hours (9.15 – 17.15), the laboratory must be contacted and an arrangement made to deliver the samples out of hours. All samples arriving at the laboratory must be accompanied by a chain of custody sheet signed both by the sampler and the laboratory staff member receiving the samples. This sheet should have full details of all the samples taken, location/unique identifying details, date and time of sampling etc. so that no uncertainty can arise in the event of prosecution.

Sampling Schedule Wastewater Monaghan County Council

ID	Plant_Name	Design PE	Min No of Samples	Raw Influent	Final Effluent	River Up Stream	River Down Stream	TOTAL		Parameters				
1	Monaghan	43833	12	12	12	12	12	48		BOD	COD	SS	Total N	Total P
2	Castleblayney	12960	12	12	12	12	12	48						
3	Carrickmacross	12150	12	12	12	12	12	48						
4	Ballybay	7283	8	8	8	8	8	32						
5	Clones	4500	8	8	8	8	8	32						
6	Knockaconny	3000	8	8	8	8	8	32						
7	Smithborough	750	6	6	6	6	6	24						
8	Emyvale	650	6	6	6	6	6	24						
9	Scotstown	620	6	6	6	6	6	24						
10	Knockatallon	620	6	6	6	6	6	24						
11	Scotshouse	600	6	6	6	6	6	24						
12	Newbliss	500	6	6	6	6	6	24						
13	Rockcorry	500	6	6	6	6	6	24						
14	Inniskeen	450	6	6	6	6	6	24						
15	Ballinode	440	6	6	6	6	6	24						
16	Tydavnet	300	6	6	6	6	6	24						
17	Glaslough	260	6	6	6	6	6	24						
18	Threemilehouse	250	6	6	6	6	6	24						
19	Tyholland	150	6	6	6	6	6	24						
20	Clontibret	150	6	6	6	6	6	24						
21	Drum	150	6	6	6	6	6	24						
22	Carrickroe	150	6	6	6	6	6	24						
23	Oram	150	6	6	6	6	6	24						
24	Magheracloone	72	6	6	6	6	6	24						
25	Scotshouse		6	6	6	6	6	24						
26	Doohamlet		6	6	6	6	6	24						
27	Annayalla		6	6	6	6	6	24						
				186	168	168	168	744						

Attachment No. E3

Tabular Data on Monitoring and Sampling Points

PT_CD	PT_TYPE	MON_TYPE	EASTING	NORTHING	VERIFIED
Point Code Provide label ID's assigned in section E of application	Point Type (e.g., Primary, Secondary, Storm Water Overflow)	Monitoring Type M = Monitoring S = Sampling	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference	Y = GPS used N = GPS not used
SW1	Primary Discharge	M	268048	333859	N
aSW1u	Primary Discharge	M			N
aSW1d	Primary Discharge	M			N

Attachment No. E4

Sampling Data

The sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application

Influent and Effluent Quality data Monaghan WWTP

Plant Name	Influent Or Effluent	Date of Sampling	Sample Type (C or G)	BOD mg/l	COD mg/l	TSS mg/l	Total P mg/l P	Ortho P mg/l P	Total N mg/l N	NH3-N mg/l N	TON mg/l N	TKN mg/l N
Monaghan	Effluent	18-Jan-06	C	7.5	22	6		3.4		1.8	67	
Monaghan	Effluent	02-Feb-06	C	2.3	38	14	0.05	1		3.6	65	
Monaghan	Effluent	02-Mar-06	C	12.2	39	15		0.46		39	44	
Monaghan	Effluent	08-Mar-06	C	10	30	12		0.16		95	24	
Monaghan	Effluent	17-May-06	C	5	21	5	1.3	0.92	.	0.69	62	
Monaghan	Effluent	29-Jun-06	C	9.7	38	9	1.1	1.6		0.15	49	
Monaghan	Effluent	20-Jul-06	C	11	29	4		1.2		1.78	42	
Monaghan	Effluent	23-Aug-06	C		36	7	0.95	0.86		1.01	5.1	
Monaghan	Effluent	08-Sep-06	C	4.2	28	6	3.2	1.2		0.12	42	
Monaghan	Effluent	18-Jan-07	C	10.4	44	7	0.78		1.43		18.4	
Monaghan	Effluent	15-Feb-07	C	12.1	70	14	1.5		1.3	63		
Monaghan	Effluent	07-Mar-07	C	3	30	5	0.4		15.59		0.03	
Monaghan	Effluent	04-Apr-07	C	4.7	24	10	1.5		31.63		0.13	
Monaghan	Effluent	24-Apr-07	C	4.5	36	8	0.77			42.1	0.1	
Monaghan	Effluent	06-Jun-07	C	7.2	38	4	0.97				1.1	
Monaghan	Effluent	21-Aug-07	C	2	28	11	5.1			0.25	23.33	
Monaghan	Effluent	21-Sep-07	C	2	40	8	2.45			0.1	26.28	
Max average				***12.2***	***70***	***15***	***3.2***	***1.6***	***31.63***	***63***	***67***	
Monaghan	Influent	18-Jan-06	C	434	593	378		5		68	2.3	
Monaghan	Influent	02-Feb-06	C	485	719	417	4.7	4.5		35	4.7	
Monaghan	Influent	02-Mar-06	C	437	711	435		4.3		57	1.8	
Monaghan	Influent	08-Mar-06	C	131	395	220		2.7		86	16	
Monaghan	Influent	17-May-06	C	113	250	277	4.9	4		28	2.6	
Monaghan	Influent	29-Jun-06	C	382	451	362	2.8	3.9		48.6	3	
Monaghan	Influent	20-Jul-06	C	298	377	188		3.2		48	3.3	
Monaghan	Influent	23-Aug-06	C		419	330	4.9	4.1		86	0	
Monaghan	Influent	08-Sep-06	C	275	437	362	3.5	2.9		36	2.1	
Monaghan	Influent	18-Jan-07	C	64.3	237	100	1.31		42.07		1.93	
Monaghan	Influent	15-Feb-07	C	240	581	198	3.1		203	3		
Monaghan	Influent	07-Mar-07	C	117	3.8	210	2.9		0.82		14.05	
Monaghan	Influent	04-Apr-07	c	224	523	280	4.1		0.05		27.06	
Monaghan	Influent	24-Apr-07	C	476	499	509	3			5.6	35	
Monaghan	Influent	06-Jun-07	C	230	415	294	3.7				58	

Section F

Existing Environment & Impact of the Discharge(s)

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

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

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

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

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

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

- Tables F.1(i)(a) & (b) should be completed for the primary discharge point. Surface water monitoring locations upstream and downstream of the discharge point shall be screened for those substances listed in Tables F.1(i)(a) & (b). Monitoring of surface water shall be carried out at not less than two points, one upstream from the discharge location and one downstream.

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

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

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

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

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

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

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

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

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

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

  (b) a site adopted by the European Commission as a site of Community importance for the purposes of Article 4(2) of Council Directive 92/43/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)

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

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

Attachment included	Yes	No
	✓	

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

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

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

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

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

Attachment F.2 should contain any supporting information.

Attachment No. F.1

Assessment of Impact on Receiving Surface or Ground Water

TABLE F.1(i)(a): SURFACE/GROUND WATER MONITORING
(Primary Discharge Point – one table per upstream and downstream location)

Discharge Point Code: ***SW1***

MONITORING POINT CODE: ***Shambles River Upstream***

Parameter	Results (mg/l[Note 1])				Sampling method (grab, drift etc.)	Limit of Quantitation	Analysis method / technique
	06/12/07	06/06 2007	24/04 2007	07/03 2007			
pH	7.5	-	-	-	Grab	<0.01 pH Units	Electrometry
Temperature	11.3°C	-	-	-			
Electrical Conductivity (@25°C)	403 µscm	-	-	-	Grab	<0.6	Electrometry
Suspended Solids	18 mg/l	5	5	10	Grab	<3 mg/l	Filtration/Drying @ 104
Ammonia (as N)	0.41 mg/l	-	2.1	-	Grab	<0.09 Mg/l as N	Colorimetry
Biochemical Oxygen Demand	<2 mg/l	2.9	1.2	2.9	Grab	<2 mg/l	Electrometry
Chemical Oxygen Demand	33 mg/l	29	24		Grab	<5 mg/l	Colorimetry
Dissolved Oxygen	-	-	-	-	Grab	0 mg/l	DO Meter
Hardness (as $CaCo_3$)	-	-		-	Grab	<2.58 mg/l CaCO3	Colorimetry
Total Nitrogen (as N)	2.35 mg/l	-	-	2.15	Grab	<1 mg/l as N	Calculation
Nitrite (as N)	0.036 mg/l	-	-	-	Grab	<0.003 mg/l	Colorimetry
Nitrate (as N)	1.19 mg/l	-	-	-	Grab	<0.09 mg/l	Colorimetry
Total Phosphorus (as P)	0.175 mg/l	0.11	0.23	0.056	Grab	<0.006 mg/l as P	Digestion/Colorimetry
Orthophosphate (as P) - unfiltered	0.095 mg/l	-	-	-	Grab	<0.005 mg/l	Colorimetry
Sulphate (SO_4)	32 mg/l	-	-	-	Grab	<2.11 mg/l as SO4	Colorimetry
Phenols (sum) [Note 2] (ug/l)	< 0.10 µg/l	-	-	-	Grab	<0.1 ug/l	GC-MS 2

Note 1: Or other unit as appropriate – please specify.
Note 2: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

TABLE F.1(i)(b): SURFACE/GROUND WATER MONITORING (Dangerous Substances)
(Primary Discharge Point - one table per upstream and downstream location)

Discharge Point Code: SW1

MONITORING POINT CODE: *Shambles River Upstream*

Parameter	Results (µg/l)				Sampling method (grab, drift etc.)	Limit of Quantitation	Analysis method / technique
	06/12/07	Date	Date	Date			
Atrazine	< 0.01 µg/l				Grab	<0.01ug/l	HPLC
Dichloromethane	< 1 µg/l				Grab	<1.0 ug/l	GC-MS 1
Simazine	< 0.01 µg/l				Grab	<0.01ug/l	HPLC
Toluene	< 1 µg/l				Grab	<1.0 ug/l	GC-MS 1
Tributyltin	< 0.05 µg/l				Grab	<0.05ug/l as Sn	GC-MS 1
Xylenes	< 1 µg/l				Grab	<1.0 ug/l	GC-MS 1
Arsenic	1 µg/l				Grab	<10 ug/l	ICPMS
Chromium	2 µg/l				Grab	<10 ug/l	ICPMS
Copper	11 µg/l				Grab	<10 ug/l	ICPMS
Cyanide	<5 µg/l				Grab	<5.0 ug/l	Colorimetry
Fluoride	< 0.09 mg/l				Grab	<0.09 mg/l	Colorimetry
Lead	3 µg/l				Grab	<10 ug/l	ICPMS
Nickel	3 µg/l				Grab	<10 ug/l	ICPMS
Zinc	11.1 µg/l				Grab	<10 ug/l	ICPMS
Boron	448 µg/l				Grab	<10 ug/l	Electrometry
Cadmium	< 0.09 µg/l				Grab	<10 ug/l	ICPMS
Mercury	3.1 µg/l				Grab	<2.5 ug/l	ICPMS
Selenium	1 µg/l				Grab	<10 ug/l	ICPMS
Barium	75 µg/l				Grab	<10 ug/l	HPLC

TABLE F.1(i)(a): SURFACE/GROUND WATER MONITORING
(Primary Discharge Point – one table per upstream and downstream location)

Discharge Point Code: ***SW1***

MONITORING POINT CODE: ***Shambles River Downstream***

Parameter	Results (mg/l[Note 1])				Sampling method (grab, drift etc.)	Limit of Quantitation	Analysis method / technique
	06/12/07	06/06 2007	24/04 2007	07/03 2007			
pH	7.3	-	-	-	Grab	<0.01 pH Units	Electrometry
Temperature	11.3°C	-	-	-			
Electrical Conductivity (@25°C)	514 µscm	-	-	-	Grab	<0.6	Electrometry
Suspended Solids	9 mg/l	4	6	6	Grab	<3 mg/l	Filtration/Drying @ 104
Ammonia (as N)	0.22 mg/l	-	4.1	-	Grab	<0.09 Mg/l as N	Colorimetry
Biochemical Oxygen Demand	<2 mg/l	3.2	2.3	2.9	Grab	<2 mg/l	Electrometry
Chemical Oxygen Demand	30 mg/l	35	39	-	Grab	<5 mg/l	Colorimetry
Dissolved Oxygen	-	-	-	-	Grab	0 mg/l	DO Meter
Hardness (as $CaCo_3$)	-	-	-	-	Grab	<2.58 mg/l CaCO3	Colorimetry
Total Nitrogen (as N)	6.24 mg/l	-	-	4.34	Grab	<1 mg/l as N	Calculation
Nitrite (as N)	0.069 mg/l	-	-	-	Grab	<0.003 mg/l	Colorimetry
Nitrate (as N)	5.65 mg/l	-	-	-	Grab	<0.09 mg/l	Colorimetry
Total Phosphorus (as P)	0.405 mg/l	0.15	0.39	0.61	Grab	<0.006 mg/l as P	Digestion/Colorimetry
Orthophosphate (as P) - unfiltered	0.396 mg/l	-	-	-	Grab	<0.005 mg/l	Colorimetry
Sulphate (SO_4)	46 mg/l	-	-	-	Grab	<2.11 mg/l as SO4	Colorimetry
Phenols (sum) [Note 2] (ug/l)	< 0.10 µg/l	-	-	-	Grab	<0.1 ug/l	GC-MS 2

Note 1: Or other unit as appropriate – please specify.
Note 2: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

TABLE F.1(i)(b): SURFACE/GROUND WATER MONITORING (Dangerous Substances)
(Primary Discharge Point - one table per upstream and downstream location)

Discharge Point Code: SW1

MONITORING POINT CODE: *Shambles River Downstream*

Parameter	Results (µg/l)				Sampling method (grab, drift etc.)	Limit of Quantitation	Analysis method / technique
	06/12/07	Date	Date	Date			
Atrazine	< 0.01 µg/l				Grab	<0.01ug/l	HPLC
Dichloromethane	< 1 µg/l				Grab	<1.0 ug/l	GC-MS 1
Simazine	< 0.01 µg/l				Grab	<0.01ug/l	HPLC
Toluene	< 1 µg/l				Grab	<1.0 ug/l	GC-MS 1
Tributyltin	< 0.05 µg/l				Grab	<0.05ug/l as Sn	GC-MS 1
Xylenes	< 1 µg/l				Grab	<1.0 ug/l	GC-MS 1
Arsenic	1 µg/l				Grab	<10 ug/l	ICPMS
Chromium	2 µg/l				Grab	<10 ug/l	ICPMS
Copper	9 µg/l				Grab	<10 ug/l	ICPMS
Cyanide	<5 µg/l				Grab	<5.0 ug/l	Colorimetry
Fluoride	< 0.09 mg/l				Grab	<0.09 mg/l	Colorimetry
Lead	3 µg/l				Grab	<10 ug/l	ICPMS
Nickel	3 µg/l				Grab	<10 ug/l	ICPMS
Zinc	11.3 µg/l				Grab	<10 ug/l	ICPMS
Boron	193 µg/l				Grab	<10 ug/l	Electrometry
Cadmium	< 0.09 µg/l				Grab	<10 ug/l	ICPMS
Mercury	3 µg/l				Grab	<2.5 ug/l	ICPMS
Selenium	2 µg/l				Grab	<10 ug/l	ICPMS
Barium	64 µg/l				Grab	<10 ug/l	HPLC

Shambles River, upstream and downstream Water Quality Data

Plant Name	Influent Or Effluent	Date of Sampling	Sample Type (C or G)	BOD mg/l	COD mg/l	TSS mg/l	Total P mg/l P	Ortho P mg/l P	Total N mg/l N	NH3-N mg/l N	TON mg/l N	TKN mg/l N
Monaghan	USW	18-Jan-06	G	3.3	39	8		0.16		0.2	3.1	
Monaghan	USW	02-Feb-06	G	3.4	35	13	0.42	0.34		0.36	3.2	
Monaghan	USW	02-Mar-06	G	2.5	42	12		0.19		0.21	2.6	
Monaghan	USW	17-May-06	G	2.5	41	11	0.31	0.39		0.36	2.2	
Monaghan	USW	29-Jun-06	G	3.1	22	10	0.19	0.25		0.21	2.7	
Monaghan	USW	20-Jul-06	G	2.9	32	8		0.26		0.24	3	
Monaghan	USW	23-Aug-06	G		29	10	0.21	0.13		46	3.1	
Monaghan	USW	08-Sep-06	G	2.2	24	12	0.49	0.31		0.35	2.7	
Monaghan	USW	18-Jan-07	G	4.5	23	35	0.22		0.22		5.16	
Monaghan	USW	15-Feb-07	G	0.74	32	3	0.13		0.32	2.1		
Monaghan	USW	07-Mar-07	G	2.9		10	0.056		2.15		0.05	
Monaghan	USW	04-Apr-07	G	1.5	17	6	0.1		1.67		0.2	
Monaghan	USW	24-Apr-07	G	1.2	24	5	0.23			2.1	0.12	
Monaghan	USW	06-Jun-07	G	2.9	29	5	0.11				0.24	
Monaghan	DSW	18-Jan-06	G	2.8	41	9		0.16		0.18	5.4	
Monaghan	DSW	02-Feb-06	G	3.6	39	10	0.52	0.45		0.34	3.8	
Monaghan	DSW	02-Mar-06	G	2.8	45	14		0.23		0.2	3	
Monaghan	DSW	17-May-06	G	2.2	49	12	0.28	0.32		0.39	2.9	
Monaghan	DSW	29-Jun-06	G	3.4	28	11	0.2	0.27		0.22	3	
Monaghan	DSW	20-Jul-06	G	3.6	27	4		0.73		0.18	3.6	
Monaghan	DSW	23-Aug-06	G		31	10	0.23	0.18		0.45	4.6	
Monaghan	DSW	08-Sep-06	G	2.3	23	10	0.39	0.35		0.49	3.1	
Monaghan	DSW	18-Jan-07	G	8	42	31	0.09		0.09		2.38	
Monaghan	DSW	15-Feb-07	G	1	36	6	0.15		0.4	3.8		
Monaghan	DSW	07-Mar-07	G	2.9		6	0.14		4.34		0.06	
Monaghan	DSW	04-Apr-07	G	4.3	33	9	0.61		10.8		0.16	
Monaghan	DSW	24-Apr-07	G	2.3	39	6	0.39			4.1	0.09	
Monaghan	DSW	06-Jun-07	G	3.2	35	4	0.15				0.39	

TABLE F.1(ii)(a): SURFACE/GROUND WATER MONITORING - (1 table per discharge point upstream and downstream locations)
(Secondary Discharge Point)

Discharge Point Code: ***SW2***

MONITORING POINT CODE: ***Shambles River, see SW1***

Parameter	Results (mg/l[Note 1])				Sampling method (grab, drift etc.)	Limit of Quantitation	Analysis method / technique
	06/12/07	Date	Date	Date			
pH					Grab	<0.01 pH Units	Electrometry
Temperature							
Electrical Conductivity (@25°C)					Grab	<0.6	Electrometry
Suspended Solids					Grab	<3 mg/l	Filtration/Drying @ 104
Ammonia (as N)					Grab	<0.09 Mg/l as N	Colorimetry
Biochemical Oxygen Demand					Grab	<2 mg/l	Electrometry
Chemical Oxygen Demand					Grab	<5 mg/l	Colorimetry
Dissolved Oxygen					Grab	0 mg/l	DO Meter
Hardness (as $CaCo_3$)					Grab	<2.58 mg/l CaCO3	Colorimetry
Total Nitrogen (as N)					Grab	<1 mg/l as N	Calculation
Nitrite (as N)					Grab	<0.003 mg/l	Colorimetry
Nitrate (as N)					Grab	<0.09 mg/l	Colorimetry
Total Phosphorus (as P)					Grab	<0.006 mg/l as P	Digestion/Colorimetry
Orthophosphate (as P) - unfiltered					Grab	<0.005 mg/l	Colorimetry
Sulphate (SO_4)					Grab	<2.11 mg/l as SO4	Colorimetry
Phenols (sum) [Note 2] (ug/l)					Grab	<0.1 ug/l	GC-MS 2

Note 1: Or other unit as appropriate – please specify.
Note 2: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

TABLE F.1(ii)(b): SURFACE/GROUND WATER MONITORING - (1 table per discharge point upstream and downstream locations)
(Secondary Discharge Point)

Discharge Point Code: ***SW2***

MONITORING POINT CODE: ***Shambles River, see SW1***

Parameter	Results (µg/l)				Sampling method (grab, drift etc.)	Limit of Quantitation	Analysis method / technique
	06/12/07	Date	Date	Date			
Atrazine					Grab	<0.01ug/l	HPLC
Dichloromethane					Grab	<1.0 ug/l	GC-MS 1
Simazine					Grab	<0.01ug/l	HPLC
Toluene					Grab	<1.0 ug/l	GC-MS 1
Tributyltin					Grab	<0.05ug/l as Sn	GC-MS 1
Xylenes					Grab	<1.0 ug/l	GC-MS 1
Arsenic					Grab	<10 ug/l	ICPMS
Chromium					Grab	<10 ug/l	ICPMS
Copper					Grab	<10 ug/l	ICPMS
Cyanide					Grab	<5.0 ug/l	Colorimetry
Fluoride					Grab	<0.09 mg/l	Colorimetry
Lead					Grab	<10 ug/l	ICPMS
Nickel					Grab	<10 ug/l	ICPMS
Zinc					Grab	<10 ug/l	ICPMS
Boron					Grab	<10 ug/l	Electrometry
Cadmium					Grab	<10 ug/l	ICPMS
Mercury					Grab	<2.5 ug/l	ICPMS
Selenium					Grab	<10 ug/l	ICPMS
Barium					Grab	<10 ug/l	HPLC

TABLE F.1(ii)(a): SURFACE/GROUND WATER MONITORING - (1 table per discharge point upstream and downstream locations)
(Secondary Discharge Point)

Discharge Point Code: ***SW3***

MONITORING POINT CODE: ***Shambles River, see SW2***

Parameter	Results (mg/l[Note 1])				Sampling method (grab, drift etc.)	Limit of Quantitation	Analysis method / technique
	Date	Date	Date	Date			
pH					Grab	<0.01 pH Units	Electrometry
Temperature							
Electrical Conductivity (@25°C)					Grab	<0.6	Electrometry
Suspended Solids					Grab	<3 mg/l	Filtration/Drying @ 104
Ammonia (as N)					Grab	<0.09 Mg/l as N	Colorimetry
Biochemical Oxygen Demand					Grab	<2 mg/l	Electrometry
Chemical Oxygen Demand					Grab	<5 mg/l	Colorimetry
Dissolved Oxygen					Grab	0 mg/l	DO Meter
Hardness (as $CaCo_3$)					Grab	<2.58 mg/l CaCO3	Colorimetry
Total Nitrogen (as N)					Grab	<1 mg/l as N	Calculation
Nitrite (as N)					Grab	<0.003 mg/l	Colorimetry
Nitrate (as N)					Grab	<0.09 mg/l	Colorimetry
Total Phosphorus (as P)					Grab	<0.006 mg/l as P	Digestion/Colorimetry
Orthophosphate (as P) - unfiltered					Grab	<0.005 mg/l	Colorimetry
Sulphate (SO_4)					Grab	<2.11 mg/l as SO4	Colorimetry
Phenols (sum) [Note 2] (ug/l)					Grab	<0.1 ug/l	GC-MS 2

Note 1: Or other unit as appropriate – please specify.
Note 2: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

TABLE F.1(ii)(b): SURFACE/GROUND WATER MONITORING - (1 table per discharge point upstream and downstream locations)
(Secondary Discharge Point)

Discharge Point Code: ***SW3***

MONITORING POINT CODE: ***Shambles River, see SW2***

Parameter	Results (µg/l)				Sampling method (grab, drift etc.)	Limit of Quantitation	Analysis method / technique
	Date	Date	Date	Date			
Atrazine					Grab	<0.01ug/l	HPLC
Dichloromethane					Grab	<1.0 ug/l	GC-MS 1
Simazine					Grab	<0.01ug/l	HPLC
Toluene					Grab	<1.0 ug/l	GC-MS 1
Tributyltin					Grab	<0.05ug/l as Sn	GC-MS 1
Xylenes					Grab	<1.0 ug/l	GC-MS 1
Arsenic					Grab	<10 ug/l	ICPMS
Chromium					Grab	<10 ug/l	ICPMS
Copper					Grab	<10 ug/l	ICPMS
Cyanide					Grab	<5.0 ug/l	Colorimetry
Fluoride					Grab	<0.09 mg/l	Colorimetry
Lead					Grab	<10 ug/l	ICPMS
Nickel					Grab	<10 ug/l	ICPMS
Zinc					Grab	<10 ug/l	ICPMS
Boron					Grab	<10 ug/l	Electrometry
Cadmium					Grab	<10 ug/l	ICPMS
Mercury					Grab	<2.5 ug/l	ICPMS
Selenium					Grab	<10 ug/l	ICPMS
Barium					Grab	<10 ug/l	HPLC

Attachment No. F.2

Drinking water abstraction point(s)

Not Applicable

Section G

Programmes of Improvements

SECTION G: PROGRAMMES OF IMPROVEMENTS

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

G.1 Compliance with Council Directives

Provide details on a programme of improvements to ensure that emissions from the agglomeration or any premises, plant, methods, processes, operating procedures or other factors which affect such emissions will comply with, or will not result in the contravention of; the Dangerous Substances Directive 2006/11/EC, the Water Framework Directive 2000/60/EC, the Birds Directive 79/409/EEC, the Groundwater Directives 80/68/EEC & 2006/118/EC, the Drinking Water Directives 80/778/EEC, the Urban Waste Water Treatment Directive 91/271/EEC, the Habitats Directive 92/43/EEC, the Environmental Liabilities Directive 2004/35/EC and the Bathing Water Directive 76/160/EEC.

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

Attachment included	Yes	No
		✓

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

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

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

Attachment included	Yes	No
		✓

G.3 Impact Mitigation

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

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

Attachment included	Yes	No
		✓

G.4 Storm Water Overflow

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

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

Attachment included	Yes	No
	✓	

Attachment No. G.1

Compliance with Council Directives

No improvements are foreseen at this moment.

Attachment No. G.2

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

No improvements are foreseen at this moment.

Attachment No. G.3

Impact Mitigation

No improvements are foreseen at this moment.

Attachment No. G.4

Storm Water Overflow

Please refer to Attachment B.10.

Under the proposed upgrade of the sewage network in Monaghan, all Combined Sewer Overflows will be eliminated.

Section G

Programmes of Improvements

SECTION G: PROGRAMMES OF IMPROVEMENTS

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

G.1 Compliance with Council Directives

Provide details on a programme of improvements to ensure that emissions from the agglomeration or any premises, plant, methods, processes, operating procedures or other factors which affect such emissions will comply with, or will not result in the contravention of; the Dangerous Substances Directive 2006/11/EC, the Water Framework Directive 2000/60/EC, the Birds Directive 79/409/EEC, the Groundwater Directives 80/68/EEC & 2006/118/EC, the Drinking Water Directives 80/778/EEC, the Urban Waste Water Treatment Directive 91/271/EEC, the Habitats Directive 92/43/EEC, the Environmental Liabilities Directive 2004/35/EC and the Bathing Water Directive 76/160/EEC.

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

Attachment included	Yes	No
		✓

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

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

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

Attachment included	Yes	No
		✓

G.3 Impact Mitigation

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

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

Attachment included	Yes	No
		✓

G.4 Storm Water Overflow

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

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

Attachment included	Yes	No
	✓	

Attachment No. G.1

Compliance with Council Directives

No improvements are foreseen at this moment.

Attachment No. G.2

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

No improvements are foreseen at this moment.

Attachment No. G.3

Impact Mitigation

No improvements are foreseen at this moment.

Attachment No. G.4

Storm Water Overflow

Please refer to Attachment B.10.

Under the proposed upgrade of the sewage network in Monaghan, all Combined Sewer Overflows will be eliminated.

Section H

Declaration

SECTION H: DECLARATION

Declaration

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

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

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

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

Signed by : David Fallon **Date :** 11/12/07
(on behalf of the organisation)

Print signature name: DAVID FALLON

Position in organisation: Director of Service

Section I

Joint Declaration

Not Applicable