

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

Discharge Point Code: SW 1 - FERMOY

Source of Emission:	Fermoy WWTP
Location:	Strawhall, Townsland of Fermoy
Grid Ref. (12 digit, 6E, 6N):	E : 182331 N : 098819
Name of receiving waters:	River Blackwater
River Basin District:	South Western River Basin District
Designation of receiving waters:	SAC SPA NHA & Sensitive Waters (Under UWWD) Salmonid
Flow rate in receiving waters:	<div style="text-align: right;"> <u> 3.6 </u> m³.sec⁻¹ Dry Weather Flow <u> 6.8 </u> m³.sec⁻¹ 95%ile flow </div>

Emission Details:

(i) Volume emitted	4097 cubic metres		
Normal/day	4097 cu. m	Maximum/day	5631 cu.m
Maximum rate/hour	250 cu.m	Period of emission (avg)	<u> 60 </u> min/hr <u> 24 </u> hr/day <u> 365 </u> day/yr
Dry Weather Flow	0.032 cu. m/sec		

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

Discharge Point Code: SW 1 - FERMOY

Number	Substance	As discharged	
		Max. daily average	
1	pH	7.3	
2	Temperature	Not Available	
3	Electrical Conductivity(@20°C)	565	
		Max. daily average (mg/l) *	kg/day**
4	Suspended Solids	9.78	34.74
5	Ammonia (as N)	0.05*	0.178*
6	Biochemical Oxygen Demand	3.24	11.5
7	Chemical Oxygen Demand	17*	60.4*
8	Total Nitrogen (as N)	14.26	50.67
9	Nitrite (as N)	Not Available	Not Available
10	Nitrate (as N)	0.43	1.53
11	Total Phosphorus (as P)	1.20	4.28
12	Orthophosphate (as P) ^{Note 1}	1.28	4.54
13	Sulphate (SO ₄)	15*	53.3*
14	Phenols (sum) ^{Note 2} (ug/l)	<0.10	<0.0004

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.

*note 3 values recorded less than LOD were recorded as ½ the LOD in order to generate statistical data

****Note 4 kg/day loadings results using average flow of 3552.9m³/day which is the average flow measured on the dates of sampling
Flow data recorded in Section E4**

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

Primary Discharge Point - Characteristics of the emission

Discharge Point Code: SW 1 FERMOY Revised

Number	Substance	As discharged		
		Max. daily average (µg/l)	kg/day	kg/year
1	Atrazine	<0.01	<0.00004	<0.0146
2	Dichloromethane	<1	<0.0036	<1.31
3	Simazine	<0.01	<0.00004	<0.0146
4	Toluene	<0.01	<0.00004	<0.0146
5	Tributyltin	Not Available	Not Available	Not Available
6	Xylenes	<0.01	<0.00004	<0.0146
7	Arsenic	10	0.0355	12.96
8	Chromium	10*	0.036*	12.96*
9	Copper	10*	0.036*	12.96*
10	Cyanide	<5	<0.018	<6.57
11	Fluoride	<0.1	<0.356	<130
12	Lead	10*	0.036*	12.96*
13	Nickel	10*	0.036*	12.96*
14	Zinc	10*	0.036*	12.96*
15	Boron	10*	0.036*	12.96*
16	Cadmium	10*	0.036*	12.96*
17	Mercury	<0.2	<0.0008	<0.292
18	Selenium	4	0.014	5.11
19	Barium	10*	0.036*	12.96*

*note 3 values recorded less than LOD were recorded as ½ the LOD in order to generate statistical data

****Note 4 kg/day loadings results using average flow of 3552.9m3/day which is the average flow measured on the dates of sampling Flow data recorded in Section E4**

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

Discharge Point Code: SW 2 - FERMOY Revised

Source of Emission:	Pumping Station
Location:	Strawhall, Townland of Strawhill
Grid Ref. (12 digit, 6E, 6N):	E : 182193 N : 098780
Name of receiving waters:	River Blackwater
River Basin District:	South Western River Basin District
Designation of receiving waters:	SAC SPA NHA & Sensitive Waters (Under UWWD) Salmonid
Flow rate in receiving waters:	<div style="text-align: right;"> <u>3.6</u> m³.sec⁻¹ Dry Weather Flow <u>6.8</u> m³.sec⁻¹ 95%ile flow </div>

Emission Details:

(i) Volume emitted not available			
Normal/day	Not Available m ³	Maximum/day	Not Available m ³
Maximum rate/hour	Not Available m ³	Period of emission (avg)	<u>Not Available</u> min/hr <u> </u> hr/day <u> </u> day/yr
Dry Weather Flow	Not Available 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: SW 2 - FERMOY

Number	Substance	As discharged	
		Max. daily average	
1	pH	Not Available	
2	Temperature	Not Available	
3	Electrical Conductivity (@25°C)	Not Available	
		Max. daily average (mg/l)	kg/day
4	Suspended Solids	Not Available	Not Available
5	Ammonia (as N)	Not Available	Not Available
6	Biochemical Oxygen Demand	Not Available	Not Available
7	Chemical Oxygen Demand	Not Available	Not Available
8	Total Nitrogen (as N)	Not Available	Not Available
9	Nitrite (as N)	Not Available	Not Available
10	Nitrate (as N)	Not Available	Not Available
11	Total Phosphorus (as P) ^{Note 1}	Not Available	Not Available
12	Orthophosphate (as P)	Not Available	Not Available
13	Sulphate (SO ₄)	Not Available	Not Available
14	Phenols (sum) ^{Note 2} (ug/l)	Not Available	Not Available

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.

Consent of sampling is granted for any other use.

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: SW 2 - FERMOY

Number	Substance	As discharged		
		Max. daily average (µg/l)	kg/day	kg/year
1	Atrazine	Not Available	Not Available	Not Available
2	Dichloromethane	Not Available	Not Available	Not Available
3	Simazine	Not Available	Not Available	Not Available
4	Toluene	Not Available	Not Available	Not Available
5	Tributyltin	Not Available	Not Available	Not Available
6	Xylenes	Not Available	Not Available	Not Available
7	Arsenic	Not Available	Not Available	Not Available
8	Chromium	Not Available	Not Available	Not Available
9	Copper	Not Available	Not Available	Not Available
10	Cyanide	Not Available	Not Available	Not Available
11	Fluoride	Not Available	Not Available	Not Available
12	Lead	Not Available	Not Available	Not Available
13	Nickel	Not Available	Not Available	Not Available
14	Zinc	Not Available	Not Available	Not Available
15	Boron	Not Available	Not Available	Not Available
16	Cadmium	Not Available	Not Available	Not Available
17	Mercury	Not Available	Not Available	Not Available
18	Selenium	Not Available	Not Available	Not Available
19	Barium	Not Available	Not Available	Not Available

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

Discharge Point Code: SW 3 - FERMOY Revised

Source of Emission:	Pumping Station
Location:	Rathealy Road, Townsland of Carrignagroghera
Grid Ref. (12 digit, 6E, 6N):	E : 181462 N : 098719
Name of receiving waters:	River Blackwater
River Basin District:	South Western River Basin District
Designation of receiving waters:	SAC SPA NHA & Sensitive Waters (Under UWWD) Salmonid
Flow rate in receiving waters:	_____ 3.6 _____ m ³ .sec ⁻¹ Dry Weather Flow _____ 6.8 _____ m ³ .sec ⁻¹ 95%ile flow

Emission Details:

(i) Volume emitted not available			
Normal/day	Not Available m ³	Maximum/day	Not Available m ³
Maximum rate/hour	Not Available m ³	Period of emission (avg)	Not Available ___ min/hr ___ hr/day ___ day/yr
Dry Weather Flow	Not Available 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: SW 3 - FERMOY

Number	Substance	As discharged	
		Max. daily average	
1	pH	Not Available	
2	Temperature	Not Available	
3	Electrical Conductivity (@25°C)	Not Available	
		Max. daily average (mg/l)	kg/day
4	Suspended Solids	Not Available	Not Available
5	Ammonia (as N)	Not Available	Not Available
6	Biochemical Oxygen Demand	Not Available	Not Available
7	Chemical Oxygen Demand	Not Available	Not Available
8	Total Nitrogen (as N)	Not Available	Not Available
9	Nitrite (as N)	Not Available	Not Available
10	Nitrate (as N)	Not Available	Not Available
11	Total Phosphorus (as P) ^{Note 1}	Not Available	Not Available
12	Orthophosphate (as P)	Not Available	Not Available
13	Sulphate (SO ₄)	Not Available	Not Available
14	Phenols (sum) ^{Note 2} (ug/l)	Not Available	Not Available

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.

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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: SW 3 - FERMOY

Number	Substance	As discharged		
		Max. daily average (µg/l)	kg/day	kg/year
1	Atrazine	Not Available	Not Available	Not Available
2	Dichloromethane	Not Available	Not Available	Not Available
3	Simazine	Not Available	Not Available	Not Available
4	Toluene	Not Available	Not Available	Not Available
5	Tributyltin	Not Available	Not Available	Not Available
6	Xylenes	Not Available	Not Available	Not Available
7	Arsenic	Not Available	Not Available	Not Available
8	Chromium	Not Available	Not Available	Not Available
9	Copper	Not Available	Not Available	Not Available
10	Cyanide	Not Available	Not Available	Not Available
11	Fluoride	Not Available	Not Available	Not Available
12	Lead	Not Available	Not Available	Not Available
13	Nickel	Not Available	Not Available	Not Available
14	Zinc	Not Available	Not Available	Not Available
15	Boron	Not Available	Not Available	Not Available
16	Cadmium	Not Available	Not Available	Not Available
17	Mercury	Not Available	Not Available	Not Available
18	Selenium	Not Available	Not Available	Not Available
19	Barium	Not Available	Not Available	Not Available

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

Discharge Point Code: SW 4 - FERMOY Revised

Source of Emission:	Piped Surface Water including Trade Discharge from MICROBIO
Location:	Fermoy Bridge North East, Townsland of Carrignagroghera
Grid Ref. (12 digit, 6E, 6N):	E : 181232 N : 098624
Name of receiving waters:	River Blackwater
River Basin District:	South Western River Basin District
Designation of receiving waters:	SAC SPA NHA & Sensitive Waters (Under UWWD) Salmonid
Flow rate in receiving waters:	<div style="text-align: right;"> <u>3.6</u> m³.sec⁻¹ Dry Weather Flow <u>6.8</u> m³.sec⁻¹ 95%ile flow </div>

Emission Details:

(i) Volume emitted not available			
Normal/day	Not Available m ³	Maximum/day	Not Available m ³
Maximum rate/hour	Not Available m ³	Period of emission (avg)	Not Available ___ 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: SW 4 - FERMOY

Number	Substance	As discharged	
		Max. daily average	
1	pH	Not Available	
2	Temperature	Not Available	
3	Electrical Conductivity (@25°C)	Not Available	
		Max. daily average (mg/l)	kg/day
4	Suspended Solids	Not Available	Not Available
5	Ammonia (as N)	Not Available	Not Available
6	Biochemical Oxygen Demand	Not Available	Not Available
7	Chemical Oxygen Demand	Not Available	Not Available
8	Total Nitrogen (as N)	Not Available	Not Available
9	Nitrite (as N)	Not Available	Not Available
10	Nitrate (as N)	Not Available	Not Available
11	Total Phosphorus (as P) ^{Note 1}	Not Available	Not Available
12	Orthophosphate (as P)	Not Available	Not Available
13	Sulphate (SO ₄)	Not Available	Not Available
14	Phenols (sum) ^{Note 2} (ug/l)	Not Available	Not Available

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.

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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: SW 4- FERMOY

Number	Substance	As discharged		
		Max. daily average ($\mu\text{g/l}$)	kg/day	kg/year
1	Atrazine	Not Available	Not Available	Not Available
2	Dichloromethane	Not Available	Not Available	Not Available
3	Simazine	Not Available	Not Available	Not Available
4	Toluene	Not Available	Not Available	Not Available
5	Tributyltin	Not Available	Not Available	Not Available
6	Xylenes	Not Available	Not Available	Not Available
7	Arsenic	Not Available	Not Available	Not Available
8	Chromium	Not Available	Not Available	Not Available
9	Copper	Not Available	Not Available	Not Available
10	Cyanide	Not Available	Not Available	Not Available
11	Fluoride	Not Available	Not Available	Not Available
12	Lead	Not Available	Not Available	Not Available
13	Nickel	Not Available	Not Available	Not Available
14	Zinc	Not Available	Not Available	Not Available
15	Boron	Not Available	Not Available	Not Available
16	Cadmium	Not Available	Not Available	Not Available
17	Mercury	Not Available	Not Available	Not Available
18	Selenium	Not Available	Not Available	Not Available
19	Barium	Not Available	Not Available	Not Available

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

Discharge Point Code: SW 5 - FERMOY Revised

Source of Emission:	Combined Storm Water Overflow		
Location:	Fermoy Bridge North East, Townsland of Carrignagroghera.		
Grid Ref. (12 digit, 6E, 6N):	E : 182191 N : 098622		
Name of receiving waters:	River Blackwater		
River Basin District:	South Western River Basin District		
Designation of receiving waters:	SAC SPA NHA & Sensitive Waters (Under UWWD) Salmonid		
Flow rate in receiving waters:	<p style="text-align: right;">3.6 m³.sec⁻¹ Dry Weather Flow 6.8 m³.sec⁻¹ 95%ile flow</p>		

Emission Details:

(i) Volume emitted not available			
Normal/day	Not Available m ³	Maximum/day	Not Available m ³
Maximum rate/hour	Not Available m ³	Period of emission (avg)	Not Available min/hr hr/day day/yr

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

Discharge Point Code: SW 6 - FERMOY Revised

Source of Emission:	Combined Storm Water Overflow
Location:	Fitzgerald Place, Townsland of Fermoy
Grid Ref. (12 digit, 6E, 6N):	E : 181400 N : 098557
Name of receiving waters:	River Blackwater
River Basin District:	South Western River Basin District
Designation of receiving waters:	SAC SPA NHA & Sensitive Waters (Under UWWD) Salmonid
Flow rate in receiving waters:	<div style="text-align: right;"> <u>3.6</u> m³.sec⁻¹ Dry Weather Flow <u>6.8</u> m³.sec⁻¹ 95%ile flow </div>

Emission Details:

(i) Volume emitted not available			
Normal/day	Not Available m ³	Maximum/day	Not Available m ³
Maximum rate/hour	Not Available m ³	Period of emission (avg)	<u>Not Available</u> min/hr <u> </u> hr/day <u> </u> day/yr

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

Discharge Point Code: SW 7 - FERMOY Revised

Source of Emission:	Combined Storm Water Overflow
Location:	Fermoy Bridge South East, Townsland of Fermoy
Grid Ref. (12 digit, 6E, 6N):	E : 181217 N : 098500
Name of receiving waters:	River Blackwater
River Basin District:	South Western River Basin District
Designation of receiving waters:	SAC SPA NHA & Sensitive Waters (Under UWWD) Salmonid
Flow rate in receiving waters:	<p style="text-align: right;">_____ 3.6 _____ m³.sec⁻¹ Dry Weather Flow</p> <p style="text-align: right;">_____ 6.8 _____ m³.sec⁻¹ 95%ile flow</p>

Emission Details:

(i) Volume emitted not available			
Normal/day	Not Available m ³	Maximum/day	Not Available m ³
Maximum rate/hour	Not Available m ³	Period of emission (avg)	____ Not Available ____ min/hr ____ hr/day ____ day/yr

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

Discharge Point Code: SW 8 - FERMOY___Revised

Source of Emission:	Combined Storm Water Overflow
Location:	Waterloo Lane, Townland of Fermoy
Grid Ref. (12 digit, 6E, 6N):	E : 180936 N : 098498
Name of receiving waters:	River Blackwater
River Basin District:	South Western River Basin District
Designation of receiving waters:	SAC SPA NHA & Sensitive Waters (Under UWWD) Salmonid
Flow rate in receiving waters:	<p style="text-align: right;">_____ 3.6 m³.sec⁻¹ Dry Weather Flow</p> <p style="text-align: right;">_____ 6.8 m³.sec⁻¹ 95%ile flow</p>

Emission Details:

(i) Volume emitted not available			
Normal/day	Not Available m ³	Maximum/day	Not Available m ³
Maximum rate/hour	Not Available m ³	Period of emission (avg)	<p style="text-align: center;">____ Not available ____ min/hr ____ hr/day ____ day/yr</p>