PT_CD	PT_TYPE	LA_NAME	RWB_TYPE
SW1BELG	PRIMARY	Cork County Council	RIVER
SW2BELG	SECONDARY 1	Cork County Council	RIVER
SW3BELG	SECONDARY 2	Cork County Council	RIVER

RWB_NAME	DESIGNATION	EASTING	NORTHING
BELGOOLY	NONE	166337	53719
BELGOOLY	NONE	166655	53615
BELGOOLY	NONE	166616	53840

VERIFIED
NO
NO
NO

PT_CD	PT_TYPE	MON_TYPE	EASTING
Asw01u	Up stream	Sampling	166325
Asw01d	Down stream		166227

NORTHING	VERIFIED
54284	No
52139	No

Agglomeration details

Leading Local Authority	Cork County Council
Co-Applicants	
Agglomeration	Belgooly
Population Equivalent	1000
Level of Treatment	secondary treatment
Treatment plant address	BELGOOLY VILLAGE ,NEAR KINSALE,COUNTY CORK
Grid Ref (12 digits, 6E, 6N)	166328 / 053736 (Verifed using GPS)
EPA Reference No:	

Contact details

Contact Name:	Helena O'Riordan
Contact Address:	Water Services Section Cork County Council Southern Division Carrigrohane Road Cork
Contact Number:	021-4276891
Contact Fax:	021-4276321
Contact Email:	helena.o'riordan@corkcoco.ie

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

Discharge Point Code: SW-1

Local Authority Ref No:	SW1BELG	
Source of Emission:	primary plant	
Location:	BELGOOLY	
Grid Ref (12 digits, 6E, 6N)	166337 / 053719 (Verifed using GPS)	
Name of Receiving waters:	Oysterhaven	
Water Body:	Ground Water Body	
River Basin District	South Western RBD	
Designation of Receiving Waters:	NONE	
Flow Rate in Receiving Waters:	0	$m^3.sec^{-1}$ Dry Weather Flow
	0.08	$m^3.sec^{-1}$ 95% Weather Flow
Additional Comments (e.g. commentary on zero flow or other information deemed of value)	NO DWF TRANSITIONAL AREA Note discharge is 60 metres from start of transitional tidal area	

Emission Details:

(i) Volume emitted			
Normal/day	112.5 m^3	Maximum/day	180 m^3
Maximum rate/hour	7.5 m^3	Period of emission (avg)	60 min/hr 24 hr/day 365 day/yr
Dry Weather Flow	0.0021 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	Grab	= 7	
Temperature	°C	Grab	= 25	
Electrical Conductivity (@ 25°C)	µS/cm	Grab	= 1000	
Suspended Solids	mg/l	Grab	= 35	6.3
Ammonia (as N)	mg/l	Grab	= 30	5.4
Biochemical Oxygen Demand	mg/l	Grab	= 25	4.5
Chemical Oxygen Demand	mg/l	Grab	= 125	22.5
Total Nitrogen (as N)	mg/l	Grab	= 40	7.2
Nitrite (as N)	mg/l	Grab	= 0.4	0.072
Nitrate (as N)	mg/l	Grab	= 20	3.6
Total Phosphorous (as P)	mg/l	Grab	= 2	0.36
OrthoPhosphate (as P)	mg/l	Grab	= 1	0.18
Sulphate (SO_4)	mg/l	Grab	= 300	54
Phenols (Sum)	µg/l	Grab	= 2.92	0.000526

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	Grab	< 0.05	0.0000033
Dichloromethane	µg/l	Grab	< 5	0.00033
Simazine	µg/l	Grab	< 0.05	0.0000033
Toluene	µg/l	Grab	< 0.5	0.000033
Tributyltin	µg/l	Grab	< 0.02	0.00000132
Xylenes	µg/l	Grab	< 1	0.000066
Arsenic	µg/l	Grab	= 1.1	0.0000726
Chromium	µg/l	Grab	= 2.5	0.000165
Copper	µg/l	Grab	= 8	0.000528
Cyanide	µg/l	Grab	< 25	0.00165
Flouride	µg/l	Grab	< 100	0.0066
Lead	µg/l	Grab	= 0.6	0.0000396
Nickel	µg/l	Grab	= 10.6	0.000699
Zinc	µg/l	Grab	= 28.3	0.00186
Boron	µg/l	Grab	= 200	0.0132
Cadmium	µg/l	Grab	< 0.1	0.0000066
Mercury	µg/l	Grab	= 1	0.000066
Selenium	µg/l	Grab	= 0.8	0.00000528
Barium	µg/l	Grab	= 4	0.000264

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(ii)(a): EMISSIONS TO SURFACE/GROUND WATERS (Secondary Discharge Point)

Discharge Point Code: SW-2

Local Authority Ref No:	SW3BELG	
Source of Emission:	SECONDARY	
Location:	BELGOOLY	
Grid Ref (12 digits, 6E, 6N)	166616 / 053840 (Verifed using GPS)	
Name of Receiving waters:	OYSTER HAVEN	
Water Body:	Transitional Body	
River Basin District	South Western RBD	
Designation of Receiving Waters:	NONE	
Flow Rate in Receiving Waters:	0	$m^3.sec^{-1}$ Dry Weather Flow
	0.08	$m^3.sec^{-1}$ 95% Weather Flow
Additional Comments (e.g. commentary on zero flow or other information deemed of value)	NO DWF TRANSITIONAL AREA Note discharge is 60 metres from start of transitional tidal area note =not analysed for dangerous substances	

Emission Details:

(i) Volume emitted			
Normal/day	3.375 m^3	Maximum/day	10.125 m^3
Maximum rate/hour	0.422 m^3	Period of emission (avg)	60 min/hr 24 hr/day 365 day/yr
Dry Weather Flow	4E-05 m^3/sec		

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

Discharge Point Code: SW-2

Substance	As discharged			
	Unit of Measurement	Sampling Method	Max Daily Avg.	kg/day
pH	pH	Grab	= 7	
Temperature	°C	Grab	= 25	
Electrical Conductivity (@ 25°C)	µS/cm	Grab	= 1000	
Suspended Solids	mg/l	Grab	= 350	3.54
Ammonia (as N)	mg/l	Grab	= 46	0.465
Biochemical Oxygen Demand	mg/l	Grab	= 300	3.04
Chemical Oxygen Demand	mg/l	Grab	= 800	0.1
Total Nitrogen (as N)	mg/l	Grab	= 85	0.86
Nitrite (as N)	mg/l	Grab	= 0.6	0.006
Nitrate (as N)	mg/l	Grab	= 7.5	0.076
Total Phosphorous (as P)	mg/l	Grab	= 12	0.1215
OrthoPhosphate (as P)	mg/l	Grab	= 7.35	0.0744
Sulphate (SO_4)	mg/l	Grab	= 76	0.77
Phenols (Sum)	µg/l	Grab	< 0.1	0.00000103

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(ii)(c): DANGEROUS SUBSTANCE EMISSIONS TO SURFACE/GROUND WATERS - Characteristics of The Emission (Secondary Discharge Point)

Discharge Point Code: SW-2

Substance	As discharged			
	Unit of Measurement	Sampling Method	Max Daily Avg.	kg/day
Atrazine	µg/l	Grab	< 0	0
Dichloromethane	µg/l	Grab	< 0	0
Simazine	µg/l	Grab	< 0	0
Toluene	µg/l	Grab	< 0	0
Tributyltin	µg/l	Grab	= 0	0
Xylenes	µg/l	Grab	< 0	0
Arsenic	µg/l	Grab	< 0	0
Chromium	µg/l	Grab	< 0	0
Copper	µg/l	Grab	< 0	0
Cyanide	µg/l	Grab	< 0	0
Flouride	µg/l	Grab	= 0	0
Lead	µg/l	Grab	< 0	0
Nickel	µg/l	Grab	< 0	0
Zinc	µg/l	Grab	< 0	0
Boron	µg/l	Grab	< 0	0
Cadmium	µg/l	Grab	< 0	0
Mercury	µg/l	Grab	< 0	0
Selenium	µg/l	Grab	= 0	0
Barium	µg/l	Grab	< 0	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(ii)(a): EMISSIONS TO SURFACE/GROUND WATERS (Secondary Discharge Point)

Discharge Point Code: SW-3

Local Authority Ref No:	SW02BELG	
Source of Emission:	secondary -package plant	
Location:	Belgooly	
Grid Ref (12 digits, 6E, 6N)	166655 / 053615 (Verifed using GPS)	
Name of Receiving waters:	Oysterhaven	
Water Body:	River Water Body	
River Basin District	South Western RBD	
Designation of Receiving Waters:	none	
Flow Rate in Receiving Waters:	0	$m^3.sec^{-1}$ Dry Weather Flow
	0.08	$m^3.sec^{-1}$ 95% Weather Flow
Additional Comments (e.g. commentary on zero flow or other information deemed of value)	NO DWF TRANSITIONAL AREA Note discharge is 60 metres from start of transitional tidal area	

Emission Details:

(i) Volume emitted			
Normal/day	60 m^3	Maximum/day	88 m^3
Maximum rate/hour	3.7 m^3	Period of emission (avg)	60 min/hr 24 hr/day 365 day/yr
Dry Weather Flow	0.000694 m^3/sec		

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

Discharge Point Code: SW-3

Substance	As discharged			
	Unit of Measurement	Sampling Method	Max Daily Avg.	kg/day
pH	pH	Grab	= 7.5	
Temperature	°C	Grab	= 25	
Electrical Conductivity (@ 25°C)	µS/cm	Grab	= 1000	
Suspended Solids	mg/l	Grab	= 120	10.56
Ammonia (as N)	mg/l	Grab	= 23	2.024
Biochemical Oxygen Demand	mg/l	Grab	= 100	8.8
Chemical Oxygen Demand	mg/l	Grab	= 350	30.8
Total Nitrogen (as N)	mg/l	Grab	= 45	3.96
Nitrite (as N)	mg/l	Grab	= 0.5	0.044
Nitrate (as N)	mg/l	Grab	= 21	1.848
Total Phosphorous (as P)	mg/l	Grab	= 10	0.88
OrthoPhosphate (as P)	mg/l	Grab	= 8	0.704
Sulphate (SO_4)	mg/l	Grab	= 300	26.4
Phenols (Sum)	µg/l	Grab	< 0.01	0.00000088

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(ii)(c): DANGEROUS SUBSTANCE EMISSIONS TO SURFACE/GROUND WATERS - Characteristics of The Emission (Secondary Discharge Point)

Discharge Point Code: SW-3

Substance	As discharged			
	Unit of Measurement	Sampling Method	Max Daily Avg.	kg/day
Atrazine	µg/l	Grab	< 0.01	
Dichloromethane	µg/l	Grab	< 1	
Simazine	µg/l	Grab	< 0.01	
Toluene	µg/l	Grab	< 0.28	
Tributyltin	µg/l	Grab	= 0	0
Xylenes	µg/l	Grab	< 0.73	
Arsenic	µg/l	Grab	< 0.18	
Chromium	µg/l	Grab	< 20	
Copper	µg/l	Grab	< 20	
Cyanide	µg/l	Grab	= 5	
Flouride	µg/l	Grab	= 94	
Lead	µg/l	Grab	< 20	
Nickel	µg/l	Grab	< 20	
Zinc	µg/l	Grab	< 20	
Boron	µg/l	Grab	= 54.6	
Cadmium	µg/l	Grab	< 20	
Mercury	µg/l	Grab	< 0.03	
Selenium	µg/l	Grab	= 3	
Barium	µg/l	Grab	< 20	

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-2	365	1231.875
SW-1	365	41062.5
SW-3	365	21900

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)	166227 / 052139 (Verifed using GPS)

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	03/11/09	17/05/11	17/06/11	01/01/12			
pH	= 7.7		= 8.1		Grab	2	Electrochemical
Temperature					Grab	0.5	Electrochemical
Electrical Conductivity (@ 25°C)	= 362		= 27000		Grab	0.5	Electrochemical
Suspended Solids	= 129	= 46			Grab	0.5	Gravimetric
Ammonia (as N)	< 0.1		= 0.6		Grab	0.02	Colorimetric
Biochemical Oxygen Demand	< 1		= 3.3		Grab	0.06	Electrochemical
Chemical Oxygen Demand			< 21		Grab	8	Digestion & Colorimetric
Dissolved Oxygen					Grab	0.2	ISE
Hardness (as $CaCO_3$)				= 0	Grab	1	Titrimetric
Total Nitrogen (as N)	= 6.92		= 1.62		Grab	0.5	Digestion & Colorimetric
Nitrite (as N)	< 0.1		= 0.02		Grab	0.1	Colorimetric
Nitrate (as N)	= 5.33		= 1.32		Grab	0.5	Colorimetric
Total Phosphorous (as P)	< 0.05		= 0.06		Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	< 0.05		< 0.05		Grab	0.02	Colorimetric
Sulphate (SO_4)	< 30				Grab	30	Turbidimetric
Phenols (Sum)	< 0.1		< 0.5		Grab	0.1	GC-MS2

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:	TBT testing not required.saline interference as sampled in tidal area .area of discharge 60metres from tidal area,default of 01/01/12 and 0 where no results avaialable. Note saline interferences in some tests

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	17/05/12						
pH					Grab	2	Electrochemical
Temperature	= 12.1				Grab	0.5	Electrochemical
Electrical Conductivity (@ 25°C)	= 11160				Grab	0.5	Electrochemical
Suspended Solids					Grab	0.5	Gravimetric
Ammonia (as N)	= 0.018				Grab	0.02	Colorimetric
Biochemical Oxygen Demand	= 2				Grab	0.06	Electrochemical
Chemical Oxygen Demand					Grab	8	Digestion & Colorimetric
Dissolved Oxygen	= 10.23				Grab	0.2	ISE
Hardness (as $CaCO_3$)					Grab	1	Titrimetric
Total Nitrogen (as N)	= 5.47				Grab	0.5	Digestion & Colorimetric
Nitrite (as N)	= 0.018				Grab	0.1	Colorimetric
Nitrate (as N)	= 5.38				Grab	0.5	Colorimetric
Total Phosphorous (as P)					Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	= 0.017				Grab	0.02	Colorimetric
Sulphate (SO_4)					Grab	30	Turbidimetric
Phenols (Sum)					Grab	0.1	GC-MS2

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:	TBT testing not required.saline interference as sampled in tidal area .area of discharge 60metres from tidal area,default of 01/01/12 and 0 where no results avaialable. Note saline interferences in some tests

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)	166227 / 052139 (Verifed using GPS)

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	03/11/09	17/06/11				
Atrazine		< 0.01	< 0.01		Grab	0.96	HPLC
Dichloromethane		< 1	= 0.05		Grab	1	GC-MS1
Simazine		< 0.01	< 0.01		Grab	0.01	HPLC
Toluene		< 0.28	< 0.5		Grab	0.02	GC-MS1
Tributyltin			< 0.02		Grab	0.02	GC-MS1
Xylenes		< 0.73	< 1		Grab	1	GC-MS1
Arsenic	< 0.18		= 3.1		Grab	0.96	ICP-MS
Chromium		< 1	= 19.3		Grab	20	ICP-OES
Copper		< 1	< 3		Grab	20	ICP-OES
Cyanide	< 5		< 5		Grab	5	Colorimetric
Flouride		= 73	< 100		Grab	100	ISE
Lead		< 1	= 0.8		Grab	20	ICP-OES
Nickel		< 2	= 3.9		Grab	20	ICP-OES
Zinc		< 18.5	= 8.6		Grab	20	ICP-OES
Boron		< 54.5	= 1700		Grab	20	ICP-OES
Cadmium		< 1	< 0.1		Grab	20	ICP-OES
Mercury	< 0.03		= 0.03		Grab	0.2	ICP-MS
Selenium	= 3		= 7.1		Grab	0.74	ICP-MS
Barium		= 16.4	= 6.9		Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as Sn default of 01/01/12 and 0 where no results area avaialable.TBT testing not required.saline interference as sampled in tidal area .area of discharge 60metres from tidal area,Note saline interferences in some tests

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)	166325 / 054284 (Verifed using GPS)

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	17/06/11	17/05/12					
pH	= 7.7				Grab	2	Electrochemical
Temperature		= 10.7			Grab	0.5	Electrochemical
Electrical Conductivity (@ 25°C)	= 194	= 210			Grab	0.5	electrochemical
Suspended Solids	= 66				Grab	0.5	Gravimetric
Ammonia (as N)	= 0.605	= 0.048			Grab	0.02	Colorimetric
Biochemical Oxygen Demand	= 7.1	< 1			Grab	0.06	elelectrochemical
Chemical Oxygen Demand	< 21				Grab	8	Digestion & Colorimetric
Dissolved Oxygen		= 11.48			Grab	0	ISE
Hardness (as $CaCO_3$)		= 0			Grab		Titrimetric
Total Nitrogen (as N)	= 4.84	= 4.12			Grab	0.5	digestion+colorimetric
Nitrite (as N)		= 0.017			Grab	0.013	Colorimetric
Nitrate (as N)	= 0.05	= 8.275			Grab	0.04	Colorimetric
Total Phosphorous (as P)	= 0.11				Grab	0.05	digestion+colorimetric
OrthoPhosphate (as P)	= 0.0975	= 0.02			Grab	0.006	Colorimetric
Sulphate (SO_4)	< 30				Grab	30	Turbidimetric
Phenols (Sum)	= 1.12				Grab	1	GC-MS2

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)	166325 / 054284 (Verifed using GPS)

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	17/06/11						
Atrazine	< 0.01				Grab	0.96	HPLC
Dichloromethane	< 0.5				Grab	1	GC MS1
Simazine	< 0.01				Grab	0.01	HPLC
Toluene	< 0.5				Grab	0.02	GC MS1
Tributyltin	< 0.02				Grab	0.02	GC MS1
Xylenes	< 1				Grab	1	GC MS1
Arsenic	= 0.9				Grab	0.96	ICP-MS
Chromium	= 1.4				Grab	2	ICP-MS
Copper	= 9				Grab	2	ICP-MS
Cyanide	= 6.9				Grab	5	Colorimetric
Flouride	< 100				Grab	100	ISE
Lead	= 1.3				Grab	2	ICP-MS
Nickel	= 4.4				Grab	2	ICP-MS
Zinc	= 21.3				Grab	2	ICP-MS
Boron	= 20				Grab	2	ICP-MS
Cadmium	= 0.1				Grab	2	ICP-MS
Mercury	< 0.02				Grab	0.2	ICP-MS
Selenium	< 0.2				Grab	0.74	ICP-MS
Barium	= 11.2				Grab	2	ICP-MS

Additional Comments:	

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

Secondary Discharge Point

Discharge Point Code:	SW-3
MONITORING POINT CODE:	aSW-3d
Grid Ref (12 digits, 6E, 6N)	166227 / 052139 (Verifed using GPS)

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	03/11/09	17/05/11	17/06/11	01/01/12			
pH	= 7.7		= 8.1		Grab	2	Electrochemical
Temperature					Grab	0.5	Electrochemical
Electrical Conductivity (@ 25°C)	= 362		= 27000		Grab	0.5	Electrochemical
Suspended Solids	= 129	= 46			Grab	0.5	Gravimetric
Ammonia (as N)	< 0.1		= 0.6		Grab	0.02	Colorimetric
Biochemical Oxygen Demand	< 1		= 3.3		Grab	0.06	Electrochemical
Chemical Oxygen Demand			< 21		Grab	8	Digestion & Colorimetric
Dissolved Oxygen					Grab	0.2	ISE
Hardness (as $CaCO_3$)				= 0	Grab	1	Titrimetric
Total Nitrogen (as N)	= 6.92		= 1.62		Grab	0.5	Digestion & Colorimetric
Nitrite (as N)	< 0.1		= 0.02		Grab	0.1	Colorimetric
Nitrate (as N)	= 5.33		= 1.32		Grab	0.5	Colorimetric
Total Phosphorous (as P)	< 0.05		= 0.06		Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	< 0.05		< 0.05		Grab	0.02	Colorimetric
Sulphate (SO_4)	< 30				Grab	30	Turbidimetric
Phenols (Sum)	< 0.1		< 0.5		Grab	0.1	GC-MS2

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:	TBT testing not required.saline interference as sampled in tidal area .area of discharge 60metres from tidal area,default of 01/01/12 and 0 where no results avaialable. Note saline interferences in some tests

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	17/05/12						
pH					Grab	2	Electrochemical
Temperature	= 12.1				Grab	0.5	Electrochemical
Electrical Conductivity (@ 25°C)	= 11160				Grab	0.5	Electrochemical
Suspended Solids					Grab	0.5	Gravimetric
Ammonia (as N)	= 0.018				Grab	0.02	Colorimetric
Biochemical Oxygen Demand	= 2				Grab	0.06	Electrochemical
Chemical Oxygen Demand					Grab	8	Digestion & Colorimetric
Dissolved Oxygen	= 10.23				Grab	0.2	ISE
Hardness (as $CaCO_3$)					Grab	1	Titrimetric
Total Nitrogen (as N)	= 5.47				Grab	0.5	Digestion & Colorimetric
Nitrite (as N)	= 0.018				Grab	0.1	Colorimetric
Nitrate (as N)	= 5.38				Grab	0.5	Colorimetric
Total Phosphorous (as P)					Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	= 0.017				Grab	0.02	Colorimetric
Sulphate (SO_4)					Grab	30	Turbidimetric
Phenols (Sum)					Grab	0.1	GC-MS2

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:	TBT testing not required.saline interference as sampled in tidal area .area of discharge 60metres from tidal area,default of 01/01/12 and 0 where no results avaialable. Note saline interferences in some tests

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

Secondary Discharge Point

Discharge Point Code:	SW-3
MONITORING POINT CODE:	aSW-3d
Grid Ref (12 digits, 6E, 6N)	166227 / 052139 (Verifed using GPS)

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	03/11/09	17/06/11				
Atrazine		< 0.01	< 0.01		Grab	0.96	HPLC
Dichloromethane		< 1	= 0.05		Grab	1	GC-MS1
Simazine		< 0.01	< 0.01		Grab	0.01	HPLC
Toluene		< 0.28	< 0.5		Grab	0.02	GC-MS1
Tributyltin			< 0.02		Grab	0.02	GC-MS1
Xylenes		< 0.73	< 1		Grab	1	GC-MS1
Arsenic	< 0.18		= 3.1		Grab	0.96	ICP-MS
Chromium		< 1	= 19.3		Grab	20	ICP-OES
Copper		< 1	< 3		Grab	20	ICP-OES
Cyanide	< 5		< 5		Grab	5	Colorimetric
Flouride		= 73	< 100		Grab	100	ISE
Lead		< 1	= 0.8		Grab	20	ICP-OES
Nickel		< 2	= 3.9		Grab	20	ICP-OES
Zinc		< 18.5	= 8.6		Grab	20	ICP-OES
Boron		< 54.5	= 1700		Grab	20	ICP-OES
Cadmium		< 1	< 0.1		Grab	20	ICP-OES
Mercury	< 0.03		= 0.03		Grab	0.2	ICP-MS
Selenium	= 3		= 7.1		Grab	0.74	ICP-MS
Barium		= 16.4	= 6.9		Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as Sn default of 01/01/12 and 0 where no results area avaialable.TBT testing not required.saline interference as sampled in tidal area .area of discharge 60metres from tidal area,Note saline interferences in some tests

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

Secondary Discharge Point

Discharge Point Code:	SW-2
MONITORING POINT CODE:	aSW-2d
Grid Ref (12 digits, 6E, 6N)	166227 / 052139 (Verifed using GPS)

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	03/11/09	17/05/11	17/06/11	01/01/12			
pH	= 7.7		= 8.1		Grab	2	Electrochemical
Temperature					Grab	0.5	Electrochemical
Electrical Conductivity (@ 25°C)	= 362		= 27000		Grab	0.5	Electrochemical
Suspended Solids	= 129	= 46			Grab	0.5	Gravimetric
Ammonia (as N)	< 0.1		= 0.6		Grab	0.02	Colorimetric
Biochemical Oxygen Demand	< 1		= 3.3		Grab	0.06	Electrochemical
Chemical Oxygen Demand			< 21		Grab	8	Digestion & Colorimetric
Dissolved Oxygen					Grab	0.2	ISE
Hardness (as $CaCO_3$)				= 0	Grab	1	Titrimetric
Total Nitrogen (as N)	= 6.92		= 1.62		Grab	0.5	Digestion & Colorimetric
Nitrite (as N)	< 0.1		= 0.02		Grab	0.1	Colorimetric
Nitrate (as N)	= 5.33		= 1.32		Grab	0.5	Colorimetric
Total Phosphorous (as P)	< 0.05		= 0.06		Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	< 0.05		< 0.05		Grab	0.02	Colorimetric
Sulphate (SO_4)	< 30				Grab	30	Turbidimetric
Phenols (Sum)	< 0.1		< 0.5		Grab	0.1	GC-MS2

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:	TBT testing not required.saline interference as sampled in tidal area .area of discharge 60metres from tidal area,default of 01/01/12 and 0 where no results avaialable. Note saline interferences in some tests

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	17/05/12						
pH					Grab	2	Electrochemical
Temperature	= 12.1				Grab	0.5	Electrochemical
Electrical Conductivity (@ 25°C)	= 11160				Grab	0.5	Electrochemical
Suspended Solids					Grab	0.5	Gravimetric
Ammonia (as N)	= 0.018				Grab	0.02	Colorimetric
Biochemical Oxygen Demand	= 2				Grab	0.06	Electrochemical
Chemical Oxygen Demand					Grab	8	Digestion & Colorimetric
Dissolved Oxygen	= 10.23				Grab	0.2	ISE
Hardness (as $CaCO_3$)					Grab	1	Titrimetric
Total Nitrogen (as N)	= 5.47				Grab	0.5	Digestion & Colorimetric
Nitrite (as N)	= 0.018				Grab	0.1	Colorimetric
Nitrate (as N)	= 5.38				Grab	0.5	Colorimetric
Total Phosphorous (as P)					Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	= 0.017				Grab	0.02	Colorimetric
Sulphate (SO_4)					Grab	30	Turbidimetric
Phenols (Sum)					Grab	0.1	GC-MS2

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:	TBT testing not required.saline interference as sampled in tidal area .area of discharge 60metres from tidal area,default of 01/01/12 and 0 where no results avaialable. Note saline interferences in some tests

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

Secondary Discharge Point

Discharge Point Code:	SW-2
MONITORING POINT CODE:	aSW-2d
Grid Ref (12 digits, 6E, 6N)	166227 / 052139 (Verifed using GPS)

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	03/11/09	17/06/11				
Atrazine		< 0.01	< 0.01		Grab	0.96	HPLC
Dichloromethane		< 1	= 0.05		Grab	1	GC-MS1
Simazine		< 0.01	< 0.01		Grab	0.01	HPLC
Toluene		< 0.28	< 0.5		Grab	0.02	GC-MS1
Tributyltin			< 0.02		Grab	0.02	GC-MS1
Xylenes		< 0.73	< 1		Grab	1	GC-MS1
Arsenic	< 0.18		= 3.1		Grab	0.96	ICP-MS
Chromium		< 1	= 19.3		Grab	20	ICP-OES
Copper		< 1	< 3		Grab	20	ICP-OES
Cyanide	< 5		< 5		Grab	5	Colorimetric
Flouride		= 73	< 100		Grab	100	ISE
Lead		< 1	= 0.8		Grab	20	ICP-OES
Nickel		< 2	= 3.9		Grab	20	ICP-OES
Zinc		< 18.5	= 8.6		Grab	20	ICP-OES
Boron		< 54.5	= 1700		Grab	20	ICP-OES
Cadmium		< 1	< 0.1		Grab	20	ICP-OES
Mercury	< 0.03		= 0.03		Grab	0.2	ICP-MS
Selenium	= 3		= 7.1		Grab	0.74	ICP-MS
Barium		= 16.4	= 6.9		Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as Sn default of 01/01/12 and 0 where no results area avaialable.TBT testing not required.saline interference as sampled in tidal area .area of discharge 60metres from tidal area,Note saline interferences in some tests

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

Secondary Discharge Point

Discharge Point Code:	SW-2
MONITORING POINT CODE:	aSW-2u
Grid Ref (12 digits, 6E, 6N)	166325 / 054284 (Verifed using GPS)

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	17/06/11	17/05/12					
pH	= 7.7				Grab	2	Electrochemical
Temperature		= 10.7			Grab	0.5	Electrochemical
Electrical Conductivity (@ 25°C)	= 194	= 210			Grab	0.5	electrochemical
Suspended Solids	= 66				Grab	0.5	Gravimetric
Ammonia (as N)	= 0.605	= 0.048			Grab	0.02	Colorimetric
Biochemical Oxygen Demand	= 7.1	< 1			Grab	0.06	elelectrochemical
Chemical Oxygen Demand	< 21				Grab	8	Digestion & Colorimetric
Dissolved Oxygen		= 11.48			Grab	0	ISE
Hardness (as $CaCO_3$)		= 0			Grab		Titrimetric
Total Nitrogen (as N)	= 4.84	= 4.12			Grab	0.5	digestion+colorimetric
Nitrite (as N)		= 0.017			Grab	0.013	Colorimetric
Nitrate (as N)	= 0.05	= 8.275			Grab	0.04	Colorimetric
Total Phosphorous (as P)	= 0.11				Grab	0.05	digestion+colorimetric
OrthoPhosphate (as P)	= 0.0975	= 0.02			Grab	0.006	Colorimetric
Sulphate (SO_4)	< 30				Grab	30	Turbidimetric
Phenols (Sum)	= 1.12				Grab	1	GC-MS2

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(ii)(b): SURFACE/GROUND WATER MONITORING (Dangerous Substances)

Secondary Discharge Point

Discharge Point Code:	SW-2
MONITORING POINT CODE:	aSW-2u
Grid Ref (12 digits, 6E, 6N)	166325 / 054284 (Verifed using GPS)

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	17/06/11						
Atrazine	< 0.01				Grab	0.96	HPLC
Dichloromethane	< 0.5				Grab	1	GC MS1
Simazine	< 0.01				Grab	0.01	HPLC
Toluene	< 0.5				Grab	0.02	GC MS1
Tributyltin	< 0.02				Grab	0.02	GC MS1
Xylenes	< 1				Grab	1	GC MS1
Arsenic	= 0.9				Grab	0.96	ICP-MS
Chromium	= 1.4				Grab	2	ICP-MS
Copper	= 9				Grab	2	ICP-MS
Cyanide	= 6.9				Grab	5	Colorimetric
Flouride	< 100				Grab	100	ISE
Lead	= 1.3				Grab	2	ICP-MS
Nickel	= 4.4				Grab	2	ICP-MS
Zinc	= 21.3				Grab	2	ICP-MS
Boron	= 20				Grab	2	ICP-MS
Cadmium	= 0.1				Grab	2	ICP-MS
Mercury	< 0.02				Grab	0.2	ICP-MS
Selenium	< 0.2				Grab	0.74	ICP-MS
Barium	= 11.2				Grab	2	ICP-MS

Additional Comments:	

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

Secondary Discharge Point

Discharge Point Code:	SW-3
MONITORING POINT CODE:	aSW-3u_2
Grid Ref (12 digits, 6E, 6N)	166325 / 054284 (Verifed using GPS)

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	17/06/11	17/05/12					
pH	= 7.7				Grab	2	Electrochemical
Temperature		= 10.7			Grab	0.5	Electrochemical
Electrical Conductivity (@ 25°C)	= 194	= 210			Grab	0.5	electrochemical
Suspended Solids	= 66				Grab	0.5	Gravimetric
Ammonia (as N)	= 0.605	= 0.048			Grab	0.02	Colorimetric
Biochemical Oxygen Demand	= 7.1	< 1			Grab	0.06	elelectrochemical
Chemical Oxygen Demand	< 21				Grab	8	Digestion & Colorimetric
Dissolved Oxygen		= 11.48			Grab	0	ISE
Hardness (as $CaCO_3$)		= 0			Grab		Titrimetric
Total Nitrogen (as N)	= 4.84	= 4.12			Grab	0.5	digestion+colorimetric
Nitrite (as N)		= 0.017			Grab	0.013	Colorimetric
Nitrate (as N)	= 0.05	= 8.275			Grab	0.04	Colorimetric
Total Phosphorous (as P)	= 0.11				Grab	0.05	digestion+colorimetric
OrthoPhosphate (as P)	= 0.0975	= 0.02			Grab	0.006	Colorimetric
Sulphate (SO_4)	< 30				Grab	30	Turbidimetric
Phenols (Sum)	= 1.12				Grab	1	GC-MS2

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(ii)(b): SURFACE/GROUND WATER MONITORING (Dangerous Substances)

Secondary Discharge Point

Discharge Point Code:	SW-3
MONITORING POINT CODE:	aSW-3u_2
Grid Ref (12 digits, 6E, 6N)	166325 / 054284 (Verifed using GPS)

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	17/06/11						
Atrazine	< 0.01				Grab	0.96	HPLC
Dichloromethane	< 0.5				Grab	1	GC MS1
Simazine	< 0.01				Grab	0.01	HPLC
Toluene	< 0.5				Grab	0.02	GC MS1
Tributyltin	< 0.02				Grab	0.02	GC MS1
Xylenes	< 1				Grab	1	GC MS1
Arsenic	= 0.9				Grab	0.96	ICP-MS
Chromium	= 1.4				Grab	2	ICP-MS
Copper	= 9				Grab	2	ICP-MS
Cyanide	= 6.9				Grab	5	Colorimetric
Flouride	< 100				Grab	100	ISE
Lead	= 1.3				Grab	2	ICP-MS
Nickel	= 4.4				Grab	2	ICP-MS
Zinc	= 21.3				Grab	2	ICP-MS
Boron	= 20				Grab	2	ICP-MS
Cadmium	= 0.1				Grab	2	ICP-MS
Mercury	< 0.02				Grab	0.2	ICP-MS
Selenium	< 0.2				Grab	0.74	ICP-MS
Barium	= 11.2				Grab	2	ICP-MS

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,	application form	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,	application form	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,	application form	Yes
(d)	state the population equivalent of the agglomeration to which the application relates,	application form	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,	application form	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.	application form	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,	application form	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,	application form	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,	application form	Yes
(j)	give particulars of the nearest downstream drinking water abstraction point or points to the discharge point or points,	application form	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,	application form	Yes
(l)	give detail of compliance with relevant monitoring requirements and treatment standards contained in any applicable Council Directives of Regulations,	application form	Yes
(m)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work.	application form	Yes
(n)	Any other information as may be stipulated by the Agency.	application form	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,	application form	Yes
(b)	where appropriate, a copy of the notice given to a relevant water services authority under Regulation 13,	application form	Yes
(c)	Such other particulars, drawings, maps, reports and supporting documentation as are necessary to identify and describe, as appropriate -	application form	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,	application form	Yes
(d)	such fee as is appropriate having regard to the provisions of Regulations 38 and 39.	application form	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.	application form	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.	application form	Yes
2	2 hardcopies of application provided or 2 CD versions of application (PDF files) provided.	application form	Yes
3	1 CD of geo-referenced digital files provided.	application form	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**
1	EIA provided if applicable	not applicable	Yes
2	2 hardcopies of EIS provided if applicable.	not applicable	Yes
3	2 CD versions of EIS, as PDF files, provided.	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	application form	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,	application form	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,	application form	Yes
(d)	state the population equivalent of the agglomeration to which the application relates,	application form	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,	application form	Yes
(f)	specify the content and extent of the waste water discharge, the level of treatment provided and the flow and type of discharge,	application form	Yes
(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,	application form	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,	application form	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,	application form	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,	application form	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,	not applicable	Yes
(l)	give details of any designation under any Council Directive or Regulations that apply in relation to the receiving waters,	application form	Yes
(m)	give details of compliance with any applicable monitoring requirements and treatment standards,	application form	Yes
(n)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work,	application form	Yes
(o)	give any other information as may be stipulated by the Agency, and	application form	Yes
(p)	be accompanied by such fee as is appropriate having regard to the provisions of Regulations 38 and 39.	application form	Yes