

Agglomeration details

Leading Local Authority	Cork County Council
Co-Applicants	
Agglomeration	Newmarket
Population Equivalent	1400
Level of Treatment	Secondary
Treatment plant address	Longacre, Newmarket, Co. Cork
Grid Ref (12 digits, 6E, 6N)	131004 / 106843
EPA Reference No:	

Contact details

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

Discharge Point Code: SW-1

Local Authority Ref No:	SW01-NEW
Source of Emission:	Newmarket Wastewater Treatment Plant
Location:	Longarce, Newmarket
Grid Ref (12 digits, 6E, 6N)	130956 / 106837
Name of Receiving waters:	Dalua
Water Body:	River Water Body
River Basin District	South Western RBD
Designation of Receiving Waters:	U/S of a Salmoid Water
Flow Rate in Receiving Waters:	0.08 m ³ .sec ⁻¹ Dry Weather Flow
	0.2 m ³ .sec ⁻¹ 95% Weather Flow
Additional Comments (e.g. commentary on zero flow or other information deemed of value)	

Emission Details:

(i) Volume emitted			
Normal/day	308 m ³	Maximum/day	1848 m ³
Maximum rate/hour	42 m ³	Period of emission (avg)	60 min/hr 24 hr/day 365 day/yr
Dry Weather Flow	0.0036 m ³ /sec		

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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	= 9	
Temperature	°C	Grab	= 30	
Electrical Conductivity (@ 25°C)	µS/cm	Grab	= 1000	
Suspended Solids	mg/l	Grab	= 35	64.7
Ammonia (as N)	mg/l	Grab	= 0	0
Biochemical Oxygen Demand	mg/l	Grab	= 25	46.2
Chemical Oxygen Demand	mg/l	Grab	= 125	231
Total Nitrogen (as N)	mg/l	Grab	= 50	92.4
Nitrite (as N)	mg/l	Grab	= 0	0
Nitrate (as N)	mg/l	Grab	= 0	0
Total Phosphorous (as P)	mg/l	Grab	= 8	14.8
OrthoPhosphate (as P)	mg/l	Grab	= 6	11.1
Sulphate (SO ₄)	mg/l	Grab	= 0	0
Phenols (Sum)	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.

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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	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-2

Local Authority Ref No:	SW02-NEW
Source of Emission:	Overflow from Storm Tank at WWTP
Location:	Longarce, Newmarket
Grid Ref (12 digits, 6E, 6N)	130947 / 106845
Name of Receiving waters:	Dalua
Water Body:	River Water Body
River Basin District	South Western RBD
Designation of Receiving Waters:	U/S of a Salmoid Water
Flow Rate in Receiving Waters:	0.08 m ³ .sec ⁻¹ Dry Weather Flow
	0.2 m ³ .sec ⁻¹ 95% Weather Flow
Additional Comments (e.g. commentary on zero flow or other information deemed of value)	

Emission Details:

(i) Volume emitted			
Normal/day	0 m ³	Maximum/day	800 m ³
Maximum rate/hour	33.33 m ³	Period of emission (avg)	10 min/hr 4 hr/day 60 day/yr
Dry Weather Flow	0 m ³ /sec		

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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	= 0	
Temperature	°C	Grab	= 0	
Electrical Conductivity (@ 25°C)	µS/cm	Grab	= 0	
Suspended Solids	mg/l	Grab	= 0	0
Ammonia (as N)	mg/l	Grab	= 0	0
Biochemical Oxygen Demand	mg/l	Grab	= 0	0
Chemical Oxygen Demand	mg/l	Grab	= 0	0
Total Nitrogen (as N)	mg/l	Grab	= 0	0
Nitrite (as N)	mg/l	Grab	= 0	0
Nitrate (as N)	mg/l	Grab	= 0	0
Total Phosphorous (as P)	mg/l	Grab	= 0	0
OrthoPhosphate (as P)	mg/l	Grab	= 0	0
Sulphate (SO ₄)	mg/l	Grab	= 0	0
Phenols (Sum)	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.

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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(iii)(a): EMISSIONS TO SURFACE/GROUND WATERS (Storm Overflow)

Discharge Point Code: SW-3

Local Authority Ref No:	SW03-NEW
Source of Emission:	Storm overflow from Pumping Station
Location:	Pumping Station site at Roundwall
Grid Ref (12 digits, 6E, 6N)	132140 / 107310
Name of Receiving waters:	Rampart Stream
Water Body:	River Water Body
River Basin District	South Western RBD
Designation of Receiving Waters:	U/S of a Salmoid Water
Flow Rate in Receiving Waters:	0.02 m ³ .sec ⁻¹ Dry Weather Flow
	0.04 m ³ .sec ⁻¹ 95% Weather Flow
Additional Comments (e.g. commentary on zero flow or other information deemed of value)	

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		

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Table D.1(iii)(a): EMISSIONS TO SURFACE/GROUND WATERS (Storm Overflow)

Discharge Point Code: SW-4

Local Authority Ref No:	SW04-MILL
Source of Emission:	Storm overflow from manhole
Location:	Boherbue Road, Newmarket
Grid Ref (12 digits, 6E, 6N)	131360 / 107278
Name of Receiving waters:	Dalua
Water Body:	River Water Body
River Basin District	South Western RBD
Designation of Receiving Waters:	U/S of a Salmoid Water
Flow Rate in Receiving Waters:	0.08 m ³ .sec ⁻¹ Dry Weather Flow
	0.2 m ³ .sec ⁻¹ 95% Weather Flow
Additional Comments (e.g. commentary on zero flow or other information deemed of value)	

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		

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

Identification Code for Discharge point	Frequency of discharge (days/annum)	Quantity of Waste Water Discharged (m ³ /annum)
SW-1	365	112420
SW-2	60	0

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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 (m³/annum)	Complies with Definition of Storm Water Overflow
SW-3			Yes
SW-4			Yes

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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)	132454 / 104564

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	07/01/08	24/09/08	13/11/08	27/11/08			
pH			= 7.5	= 7.7	Grab	2	Electrochemical
Temperature					Grab	0	Electrochemical
Electrical Conductivity (@ 25°C)			= 153	= 160	Grab	0.5	Electrochemical
Suspended Solids				= 5	Grab	0.5	Gravimetric
Ammonia (as N)			< 0.1	< 0.1	Grab	0.02	Colorimetric
Biochemical Oxygen Demand				= 1.6	Grab	0.06	Electrochemical
Chemical Oxygen Demand			< 21	< 21	Grab	8	Digestion & Colorimetric
Dissolved Oxygen					Grab	0	ISE
Hardness (as CaCO ₃)					Grab	0	Titrimetric
Total Nitrogen (as N)					Grab	0.5	Digestion & Colorimetric
Nitrite (as N)				= 0.00751	Grab	0	Colorimetric
Nitrate (as N)				= 1.59	Grab	0.5	Colorimetric
Total Phosphorous (as P)				< 0.2	Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	< 0.05	< 0.05	< 0.05	< 0.05	Grab	0.02	Colorimetric
Sulphate (SO ₄)			< 30	< 30	Grab	30	Turbidimetric
Phenols (Sum)				< 0.1	Grab	0.1	GS-MS 2

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:	
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Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	07/01/09	22/01/09				
pH		= 7.6	= 6.8		Grab	2	Electrochemical
Temperature	= 0				Grab	0	Electrochemical
Electrical Conductivity (@ 25°C)		= 183	= 112		Grab	0.5	Electrochemical
Suspended Solids		= 2	= 24		Grab	0.5	Gravimetric
Ammonia (as N)		= 0.05	= 0.05		Grab	0.02	Colorimetric
Biochemical Oxygen Demand		< 2	< 2		Grab	0.06	Electrochemical
Chemical Oxygen Demand		< 5	= 28		Grab	8	Digestion & Colorimetric
Dissolved Oxygen	= 0				Grab	0	ISE
Hardness (as CaCO ₃)	= 0				Grab	0	Titrimetric
Total Nitrogen (as N)		= 2	= 1.4		Grab	0.5	Digestion & Colorimetric
Nitrite (as N)					Grab	0	Colorimetric
Nitrate (as N)					Grab	0.5	Colorimetric
Total Phosphorous (as P)		= 0.09	= 0.06		Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)			< 0.05		Grab	0.02	Colorimetric
Sulphate (SO ₄)					Grab	30	Turbidimetric
Phenols (Sum)					Grab	0.1	GS-MS 2

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:	
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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)	132454 / 104564

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	13/11/08	27/11/08	01/01/09	07/01/09			
Atrazine		< 0.01			Grab	0.96	HPLC
Dichloromethane		< 1			Grab	1	GC-MS1
Simazine		< 0.01			Grab	0.01	HPLC
Toluene		< 1			Grab	0.02	GC-MS1
Tributyltin			= 0		Grab	0.02	GC-MS1
Xylenes		< 1			Grab	1	GC-MS1
Arsenic		< 0.96			Grab	0.96	ICP-MS
Chromium		< 20		< 20	Grab	20	ICP-OES
Copper	< 20	< 20		< 20	Grab	20	ICP-OES
Cyanide		< 5			Grab	5	Colorimetric
Flouride		= 36			Grab	100	ISE
Lead	< 20	< 20		< 20	Grab	20	ICP-OES
Nickel	< 20	< 20		< 20	Grab	20	ICP-OES
Zinc	< 20	< 20		< 20	Grab	20	ICP-OES
Boron	< 20	< 20		< 20	Grab	20	ICP-OES
Cadmium	< 20	< 20		< 20	Grab	20	ICP-OES
Mercury		< 0.2			Grab	0.2	ICP-MS
Selenium		= 0.9			Grab	0.74	ICP-MS
Barium	< 20	= 37		< 20	Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as Sn
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Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	22/01/09						
Atrazine					Grab	0.96	HPLC
Dichloromethane					Grab	1	GC-MS1
Simazine					Grab	0.01	HPLC
Toluene					Grab	0.02	GC-MS1
Tributyltin					Grab	0.02	GC-MS1
Xylenes					Grab	1	GC-MS1
Arsenic					Grab	0.96	ICP-MS
Chromium	< 20				Grab	20	ICP-OES
Copper					Grab	20	ICP-OES
Cyanide					Grab	5	Colorimetric
Flouride					Grab	100	ISE
Lead	< 20				Grab	20	ICP-OES
Nickel	< 20				Grab	20	ICP-OES
Zinc	< 20				Grab	20	ICP-OES
Boron	< 20				Grab	20	ICP-OES
Cadmium	< 20				Grab	20	ICP-OES
Mercury					Grab	0.2	ICP-MS
Selenium					Grab	0.74	ICP-MS
Barium	< 20				Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as Sn
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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)	130994 / 106754

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	13/11/08	27/11/08	01/01/09	07/01/09			
pH	= 7.5	= 7.4		= 7.6	Grab	2	Electrochemical
Temperature			= 0		Grab	0	Electrochemical
Electrical Conductivity (@ 25°C)	= 133	= 157		= 201	Grab	0.5	Electrochemical
Suspended Solids		= 8		= 2	Grab	0.5	Gravimetric
Ammonia (as N)		= 0.7		< 0.05	Grab	0.02	Colorimetric
Biochemical Oxygen Demand		= 4.2		< 2	Grab	0.06	Electrochemical
Chemical Oxygen Demand	< 21	= 21		= 7	Grab	8	Digestion & Colorimetric
Dissolved Oxygen			= 0		Grab	0	ISE
Hardness (as CaCO ₃)			= 0		Grab	0	Titrimetric
Total Nitrogen (as N)		= 4		= 2	Grab	0.5	Digestion & Colorimetric
Nitrite (as N)		= 0.0309			Grab	0	Colorimetric
Nitrate (as N)		= 1.15			Grab	0.5	Colorimetric
Total Phosphorous (as P)		< 0.2		= 0.06	Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	< 0.05	= 0.1		= 0.05	Grab	0.02	Colorimetric
Sulphate (SO ₄)	< 30	< 30			Grab	30	Turbidimetric
Phenols (Sum)		< 0.1			Grab	0.1	GC-MS 2

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:	
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Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	22/01/09						
pH	= 6.8				Grab	2	Electrochemical
Temperature					Grab	0	Electrochemical
Electrical Conductivity (@ 25°C)	= 112				Grab	0.5	Electrochemical
Suspended Solids	= 24				Grab	0.5	Gravimetric
Ammonia (as N)	= 0.05				Grab	0.02	Colorimetric
Biochemical Oxygen Demand	< 2				Grab	0.06	Electrochemical
Chemical Oxygen Demand	= 28				Grab	8	Digestion & Colorimetric
Dissolved Oxygen					Grab	0	ISE
Hardness (as CaCO ₃)					Grab	0	Titrimetric
Total Nitrogen (as N)	= 1.4				Grab	0.5	Digestion & Colorimetric
Nitrite (as N)					Grab	0	Colorimetric
Nitrate (as N)					Grab	0.5	Colorimetric
Total Phosphorous (as P)	= 0.06				Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	< 0.05				Grab	0.02	Colorimetric
Sulphate (SO ₄)					Grab	30	Turbidimetric
Phenols (Sum)					Grab	0.1	GC-MS 2

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:	
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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)	130994 / 106754

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	27/11/08	01/01/09	07/01/09	22/01/09			
Atrazine	< 0.01				Grab	0.96	HPLC
Dichloromethane	< 1				Grab	1	GC-MS1
Simazine	< 0.01				Grab	0.01	HPLC
Toluene	< 1				Grab	0.02	GC-MS1
Tributyltin		= 0			Grab	0.02	GC-MS1
Xylenes	< 1				Grab	1	GC-MS1
Arsenic	< 0.96				Grab	0.96	ICP-MS
Chromium	< 20		< 20	< 20	Grab	20	ICP-OES
Copper	< 20		< 20	< 20	Grab	20	ICP-OES
Cyanide	< 5				Grab	5	Colorimetric
Flouride	= 57				Grab	100	ISE
Lead	< 20		< 20	< 20	Grab	20	ICP-OES
Nickel	< 20		< 20	< 20	Grab	20	ICP-OES
Zinc	< 20		< 20	< 20	Grab	20	ICP-OES
Boron	< 20		< 20	< 20	Grab	20	ICP-OES
Cadmium	= 20		< 20	< 20	Grab	20	ICP-OES
Mercury	< 0.2				Grab	0.2	ICP-MS
Selenium	= 1.3				Grab	0.74	ICP-MS
Barium	= 45		< 20	< 20	Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as Sn discharge to freshwaters-no requirement for TBT analysis
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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)	132454 / 104564

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	07/01/08	24/09/08	13/11/08	27/11/08			
pH			= 7.5	= 7.7	Grab	2	Electrochemical
Temperature					Grab	0	Electrochemical
Electrical Conductivity (@ 25°C)			= 153	= 160	Grab	0.5	Electrochemical
Suspended Solids				= 5	Grab	0.5	Gravimetric
Ammonia (as N)			< 0.1	< 0.1	Grab	0.02	Colorimetric
Biochemical Oxygen Demand				= 1.6	Grab	0.06	Electrochemical
Chemical Oxygen Demand			< 21	< 21	Grab	8	Digestion & Colorimetric
Dissolved Oxygen					Grab	0	ISE
Hardness (as CaCO ₃)					Grab	0	Titrimetric
Total Nitrogen (as N)					Grab	0.5	Digestion & Colorimetric
Nitrite (as N)				= 0.00751	Grab	0	Colorimetric
Nitrate (as N)				= 1.59	Grab	0.5	Colorimetric
Total Phosphorous (as P)				< 0.2	Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	< 0.05	< 0.05	< 0.05	< 0.05	Grab	0.02	Colorimetric
Sulphate (SO ₄)			< 30	< 30	Grab	30	Turbidimetric
Phenols (Sum)				< 0.1	Grab	0.1	GS-MS 2

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:	
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Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	07/01/09	22/01/09				
pH		= 7.6	= 6.8		Grab	2	Electrochemical
Temperature	= 0				Grab	0	Electrochemical
Electrical Conductivity (@ 25°C)		= 183	= 112		Grab	0.5	Electrochemical
Suspended Solids		= 2	= 24		Grab	0.5	Gravimetric
Ammonia (as N)		= 0.05	= 0.05		Grab	0.02	Colorimetric
Biochemical Oxygen Demand		< 2	< 2		Grab	0.06	Electrochemical
Chemical Oxygen Demand		< 5	= 28		Grab	8	Digestion & Colorimetric
Dissolved Oxygen	= 0				Grab	0	ISE
Hardness (as CaCO ₃)	= 0				Grab	0	Titrimetric
Total Nitrogen (as N)		= 2	= 1.4		Grab	0.5	Digestion & Colorimetric
Nitrite (as N)					Grab	0	Colorimetric
Nitrate (as N)					Grab	0.5	Colorimetric
Total Phosphorous (as P)		= 0.09	= 0.06		Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)			< 0.05		Grab	0.02	Colorimetric
Sulphate (SO ₄)					Grab	30	Turbidimetric
Phenols (Sum)					Grab	0.1	GS-MS 2

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:	
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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)	132454 / 104564

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	13/11/08	27/11/08	01/01/09	07/01/09			
Atrazine		< 0.01			Grab	0.96	HPLC
Dichloromethane		< 1			Grab	1	GC-MS1
Simazine		< 0.01			Grab	0.01	HPLC
Toluene		< 1			Grab	0.02	GC-MS1
Tributyltin			= 0		Grab	0.02	GC-MS1
Xylenes		< 1			Grab	1	GC-MS1
Arsenic		< 0.96			Grab	0.96	ICP-MS
Chromium		< 20		< 20	Grab	20	ICP-OES
Copper	< 20	< 20		< 20	Grab	20	ICP-OES
Cyanide		< 5			Grab	5	Colorimetric
Flouride		= 36			Grab	100	ISE
Lead	< 20	< 20		< 20	Grab	20	ICP-OES
Nickel	< 20	< 20		< 20	Grab	20	ICP-OES
Zinc	< 20	< 20		< 20	Grab	20	ICP-OES
Boron	< 20	< 20		< 20	Grab	20	ICP-OES
Cadmium	< 20	< 20		< 20	Grab	20	ICP-OES
Mercury		< 0.2			Grab	0.2	ICP-MS
Selenium		= 0.9			Grab	0.74	ICP-MS
Barium	< 20	= 37		< 20	Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as Sn
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Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	22/01/09						
Atrazine					Grab	0.96	HPLC
Dichloromethane					Grab	1	GC-MS1
Simazine					Grab	0.01	HPLC
Toluene					Grab	0.02	GC-MS1
Tributyltin					Grab	0.02	GC-MS1
Xylenes					Grab	1	GC-MS1
Arsenic					Grab	0.96	ICP-MS
Chromium	< 20				Grab	20	ICP-OES
Copper					Grab	20	ICP-OES
Cyanide					Grab	5	Colorimetric
Flouride					Grab	100	ISE
Lead	< 20				Grab	20	ICP-OES
Nickel	< 20				Grab	20	ICP-OES
Zinc	< 20				Grab	20	ICP-OES
Boron	< 20				Grab	20	ICP-OES
Cadmium	< 20				Grab	20	ICP-OES
Mercury					Grab	0.2	ICP-MS
Selenium					Grab	0.74	ICP-MS
Barium	< 20				Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as Sn
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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)	130994 / 106754

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	13/11/08	27/11/08	01/01/09	07/01/09			
pH	= 7.5	= 7.4		= 7.6	Grab	2	Electrochemical
Temperature			= 0		Grab	0	Electrochemical
Electrical Conductivity (@ 25°C)	= 133	= 157		= 201	Grab	0.5	Electrochemical
Suspended Solids		= 8		= 2	Grab	0.5	Gravimetric
Ammonia (as N)		= 0.7		< 0.05	Grab	0.02	Colorimetric
Biochemical Oxygen Demand		= 4.2		< 2	Grab	0.06	Electrochemical
Chemical Oxygen Demand	< 21	= 21		= 7	Grab	8	Digestion & Colorimetric
Dissolved Oxygen			= 0		Grab	0	ISE
Hardness (as CaCO ₃)			= 0		Grab	0	Titrimetric
Total Nitrogen (as N)		= 4		= 2	Grab	0.5	Digestion & Colorimetric
Nitrite (as N)		= 0.0309			Grab	0	Colorimetric
Nitrate (as N)		= 1.15			Grab	0.5	Colorimetric
Total Phosphorous (as P)		< 0.2		= 0.06	Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	< 0.05	= 0.1		= 0.05	Grab	0.02	Colorimetric
Sulphate (SO ₄)	< 30	< 30			Grab	30	Turbidimetric
Phenols (Sum)		< 0.1			Grab	0.1	GC-MS 2

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:	
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Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	22/01/09						
pH	= 6.8				Grab	2	Electrochemical
Temperature					Grab	0	Electrochemical
Electrical Conductivity (@ 25°C)	= 112				Grab	0.5	Electrochemical
Suspended Solids	= 24				Grab	0.5	Gravimetric
Ammonia (as N)	= 0.05				Grab	0.02	Colorimetric
Biochemical Oxygen Demand	< 2				Grab	0.06	Electrochemical
Chemical Oxygen Demand	= 28				Grab	8	Digestion & Colorimetric
Dissolved Oxygen					Grab	0	ISE
Hardness (as CaCO ₃)					Grab	0	Titrimetric
Total Nitrogen (as N)	= 1.4				Grab	0.5	Digestion & Colorimetric
Nitrite (as N)					Grab	0	Colorimetric
Nitrate (as N)					Grab	0.5	Colorimetric
Total Phosphorous (as P)	= 0.06				Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)	< 0.05				Grab	0.02	Colorimetric
Sulphate (SO ₄)					Grab	30	Turbidimetric
Phenols (Sum)					Grab	0.1	GC-MS 2

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:	
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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)	130994 / 106754

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	27/11/08	01/01/09	07/01/09	22/01/09			
Atrazine	< 0.01				Grab	0.96	HPLC
Dichloromethane	< 1				Grab	1	GC-MS1
Simazine	< 0.01				Grab	0.01	HPLC
Toluene	< 1				Grab	0.02	GC-MS1
Tributyltin		= 0			Grab	0.02	GC-MS1
Xylenes	< 1				Grab	1	GC-MS1
Arsenic	< 0.96				Grab	0.96	ICP-MS
Chromium	< 20		< 20	< 20	Grab	20	ICP-OES
Copper	< 20		< 20	< 20	Grab	20	ICP-OES
Cyanide	< 5				Grab	5	Colorimetric
Flouride	= 57				Grab	100	ISE
Lead	< 20		< 20	< 20	Grab	20	ICP-OES
Nickel	< 20		< 20	< 20	Grab	20	ICP-OES
Zinc	< 20		< 20	< 20	Grab	20	ICP-OES
Boron	< 20		< 20	< 20	Grab	20	ICP-OES
Cadmium	= 20		< 20	< 20	Grab	20	ICP-OES
Mercury	< 0.2				Grab	0.2	ICP-MS
Selenium	= 1.3				Grab	0.74	ICP-MS
Barium	= 45		< 20	< 20	Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as Sn discharge to freshwaters-no requirement for TBT analysis
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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 appropriate 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,	B.1	Yes
(b)	give the name of the water services authority in whose functional area the relevant waste water discharge takes place or is to take place, if different from that of the applicant,	Not Applicable	Yes
(c)	give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the location of the waste water treatment plant and/or the waste water discharge point or points to which the application relates,	B.2	Yes
(d)	state the population equivalent of the agglomeration to which the application relates,	B.9	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,	C,D	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.	F.1	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,	E.3	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,	E.4	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,	G.3	Yes
(j)	give particulars of the nearest downstream drinking water abstraction point or points to the discharge point or points,	Not Applicable	Yes
(k)	give details, and an assessment of the effects, of any existing or proposed emissions on the environment, including any environmental medium other than those into which the emissions are, or are to be made, and of proposed measures to prevent or eliminate or, where that is not practicable, to limit any pollution caused in such discharges,	F.1	Yes
(l)	give detail of compliance with relevant monitoring requirements and treatment standards contained in any applicable Council Directives of Regulations,	E1. E.4	Yes
(m)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work.	G.1	Yes
(n)	Any other information as may be stipulated by the Agency.	Not Applicable	Yes
Regulation 16(3) Without prejudice to Regulation 16 (1) and (2), an application for a licence shall be accompanied by -		Attachment Number	Checked by Applicant
(a)	a copy of the notice of intention to make an application given pursuant to Regulation 9,	B.8	Yes
(b)	where appropriate, a copy of the notice given to a relevant water services authority under Regulation 13,	Not Applicable	Yes
(c)	Such other particulars, drawings, maps, reports and supporting documentation as are necessary to identify and describe, as appropriate -	B	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	B.3, B.4, B.5	Yes
(c) (ii)	the point or points at which monitoring and sampling are undertaken or are to be undertaken,	E.3	Yes
(d)	such fee as is appropriate having regard to the provisions of Regulations 38 and 39.	B.9 (iii)	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 agency.		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.		Yes
2	2 hardcopies of application provided or 2 CD versions of application (PDF files) provided.		Yes
3	1 CD of geo-referenced digital files provided.		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

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