

Attachment C.2

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SECTION C2: OUTFALL CONSTRUCTION AND DESIGN

Table of Attachments

Item	Title	Drg. No.
1	Outfall Details	Drg. No. C2-22

The following construction drawings are taken from the Skibbereen Sewerage Scheme – Collection System contract documents. The drawings are not printed to scale and do not follow the numbering sequence used throughout this application. They are merely included to provide a better understanding of the principles of operation in the Skibbereen Sewerage Scheme.

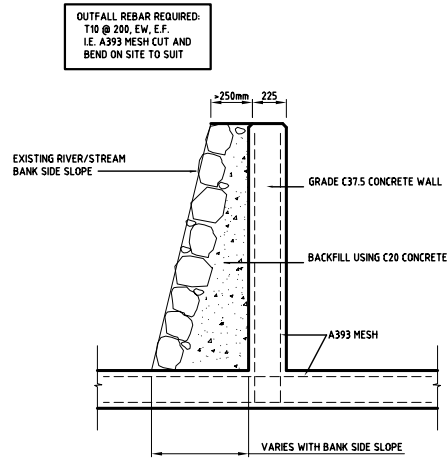
Item	Title	Drg. No.
2	Special Manholes and Scour Valve Chamber	Drg. No. 75
3	Interim Pumping Arrangement Main Pumping Station & Storm Holding Tank Site Layout	Drg. No. 410A
4	Interim Pumping Arrangement Proposed Section & Details	Drg. No. 410A

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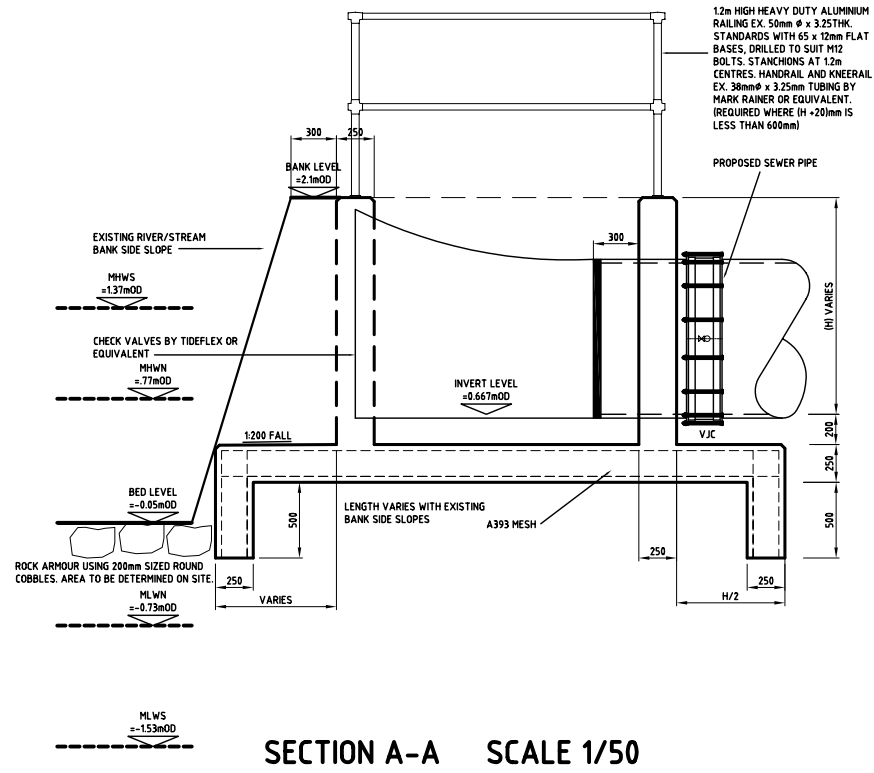
TIDAL WATER LEVEL (mOD)	
MEAN HIGH WATER SPRING (MHWS)	1.37m
MEAN HIGH WATER NEAP (MHWN)	0.77m
MEAN HIGH WATER NEAP (MHNW)	-0.73m
MEAN LOW WATER SPRING (MLWS)	-1.53m

Ref	DESCRIPTION	PIPE ϕ / mm	BARREL ϕ / mm	PIPE MATERIAL	OUTFALL I.L. mOD	BED LEVEL mOD	LEVEL AT TOP OF BANK mOD	W / mm	H / mm
1	EMERGENCY STORM TANK OVERFLOW TO THE RIVER ILEN	1000	1050	D.L.	0.68	-0.05	2.00	2000	1320
2	EMERGENCY INLET MANHOLE OVERFLOW TO THE RIVER ILEN	750	790	D.L.	-0.005	-0.05	2.10	1500	2100
3	OVERFLOW FROM CORONEA PUMPING STATION	375	480	P.C.C.	-0.32	-0.32	1.27		NO NON-RETURN VALVE REQUIRED
4	EMERGENCY OVERFLOW FROM Mh.9401 ON MARSH ROAD	225	290	P.C.C.	1.56	1.385	N/A OVERFLOW PIPE CONNECTED TO CULVERT		
5	EMERGENCY OVERFLOW FROM Mh. 6363 ON GLENCURRAGH ROAD	225	290	P.C.C.	0.90	0.80	1.70	1000	800
6	EMERGENCY OVERFLOW FROM SCOUR CHAMBER ON 300 th RISING MAIN	150	206	D.L.	1.05	-1.58	1.56	1000	500
7	MILL ROAD PUMPING STATION EMERGENCY OVERFLOW	150	206	P.C.C.	2.16	1.07	2.80	1000	900

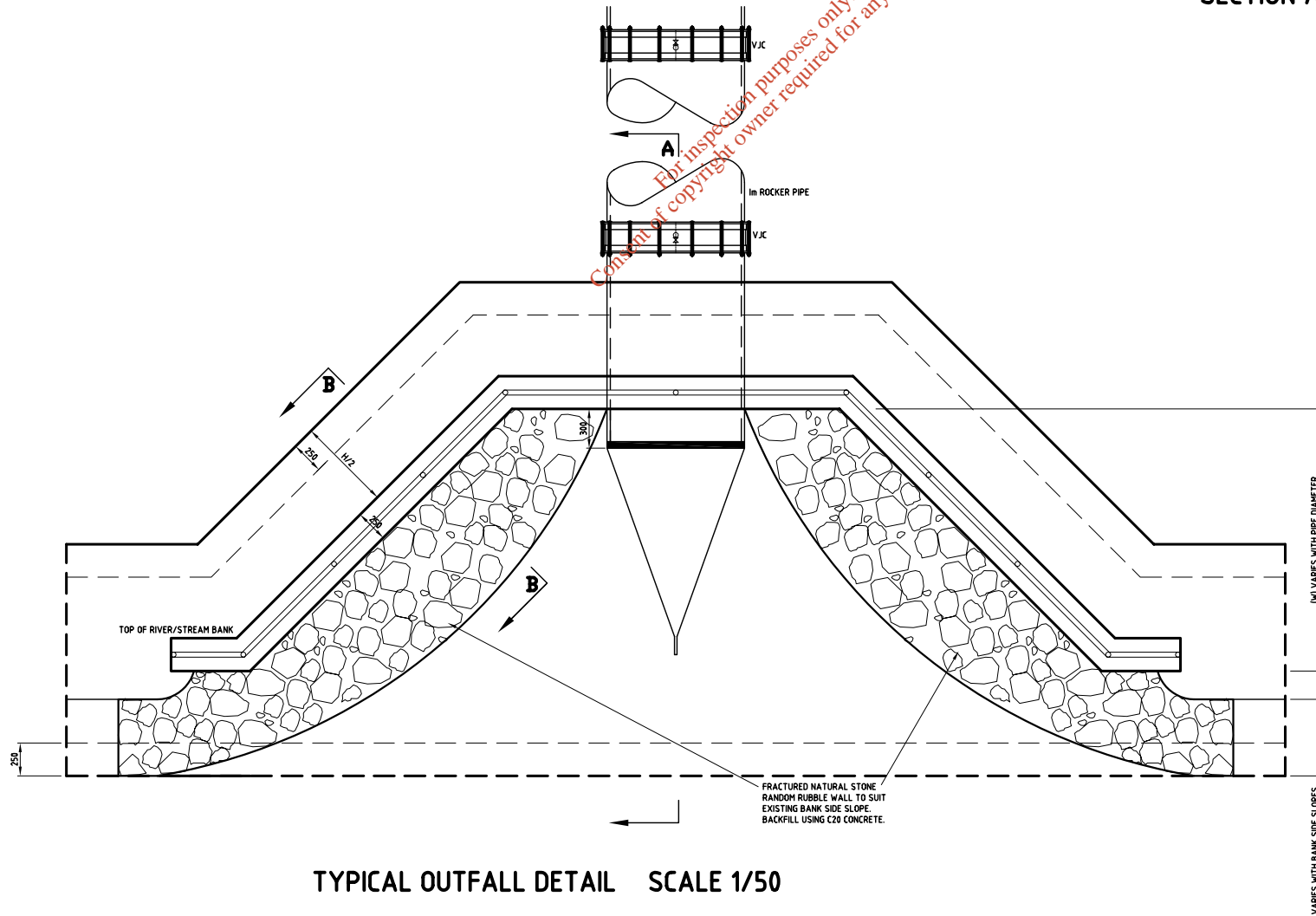
OUTFALL SCHEDULE



TYPICAL SECTION B-B THROUGH LOCALLY QUARRIED NATURAL STONE FACING SCALE 1/50



SECTION A-A SCALE 1/50



TYPICAL OUTFALL DETAIL SCALE 1/50

NOTES

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A01	June '08	Issue for Approval	BB
No.	Date	Amendment / Issue	App.

Client:



Cork County Council

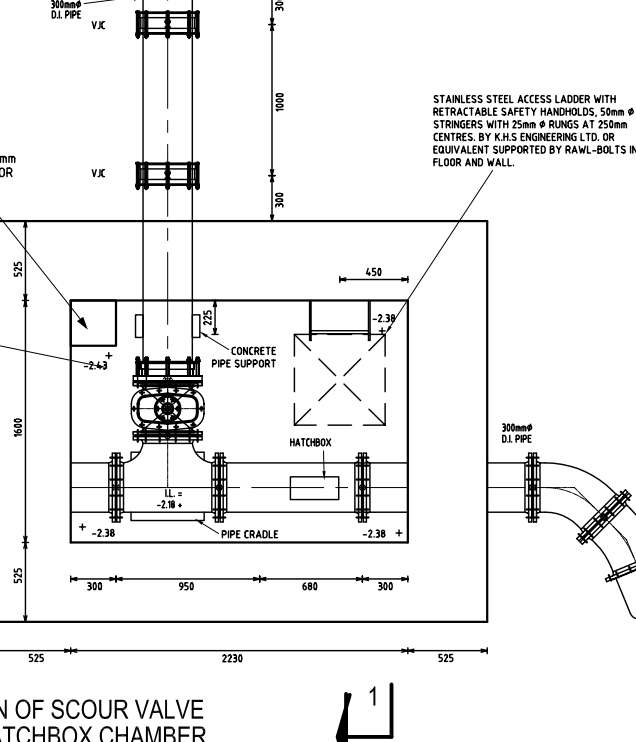
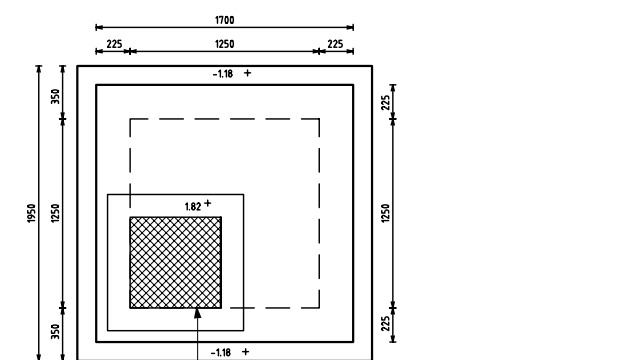
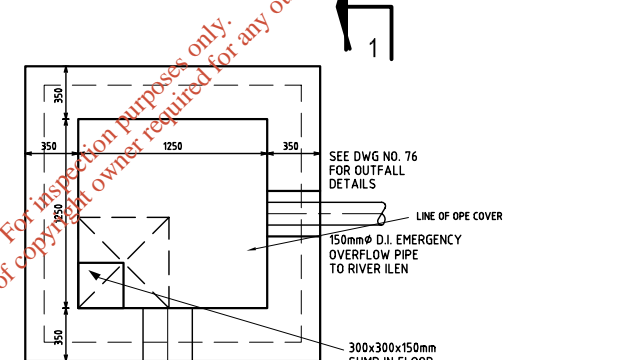
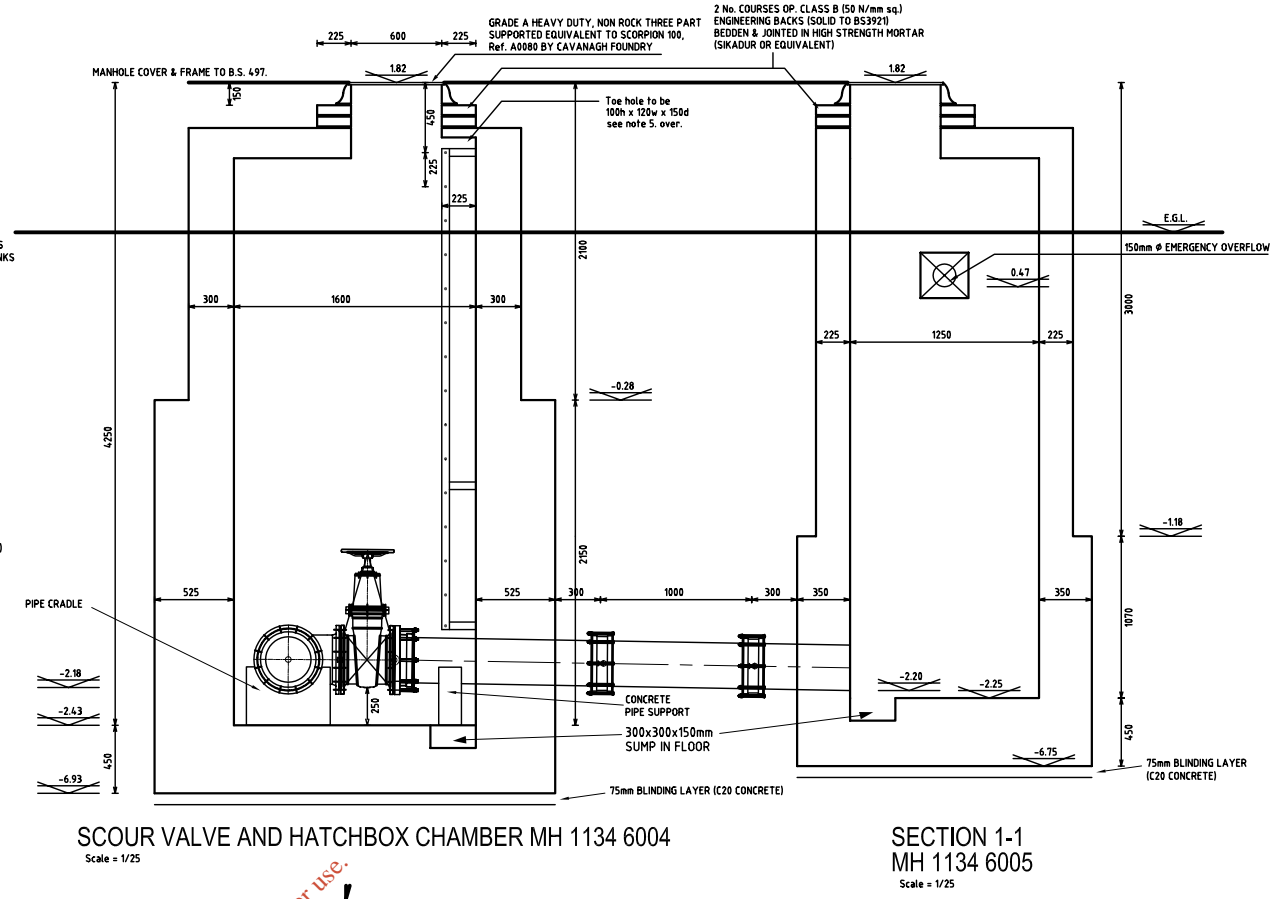
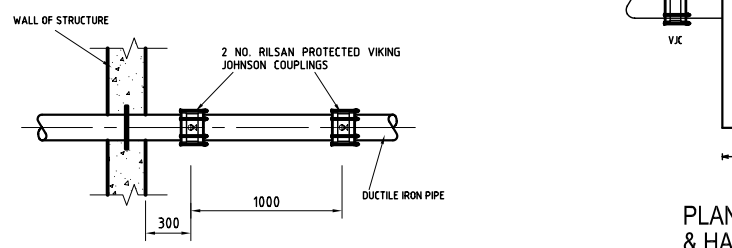
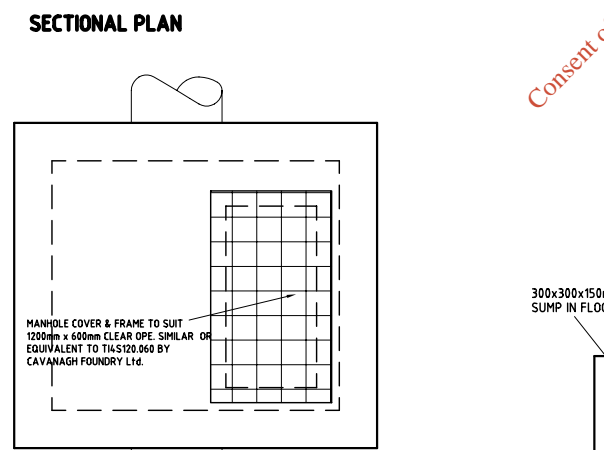
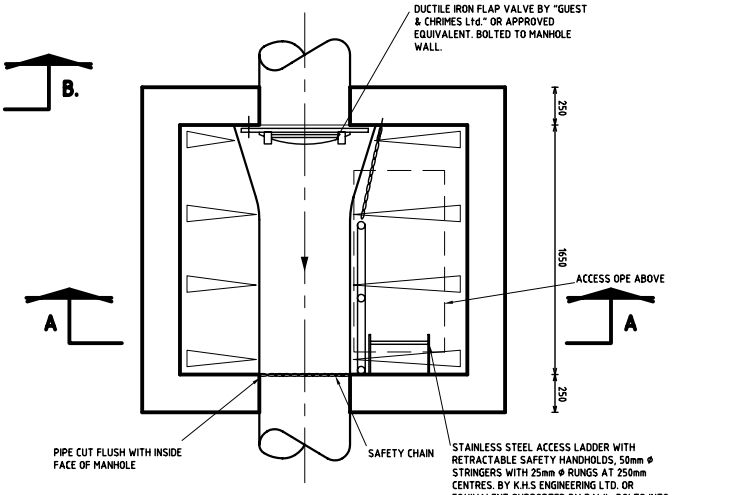
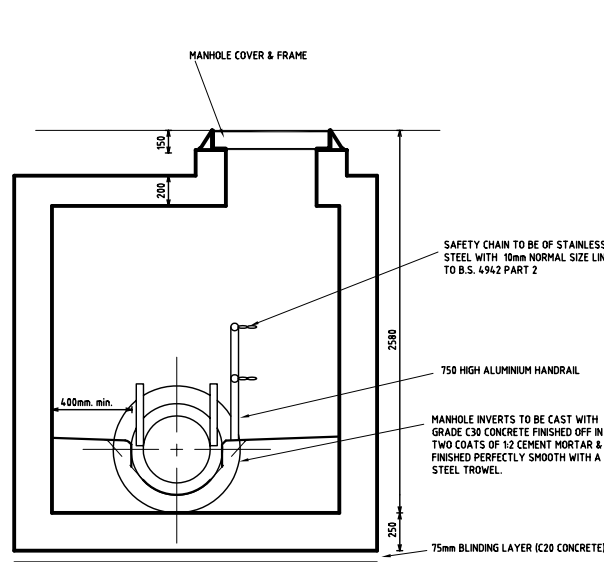
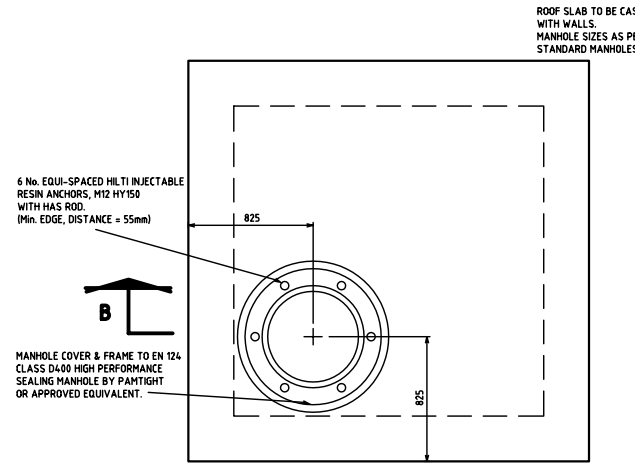
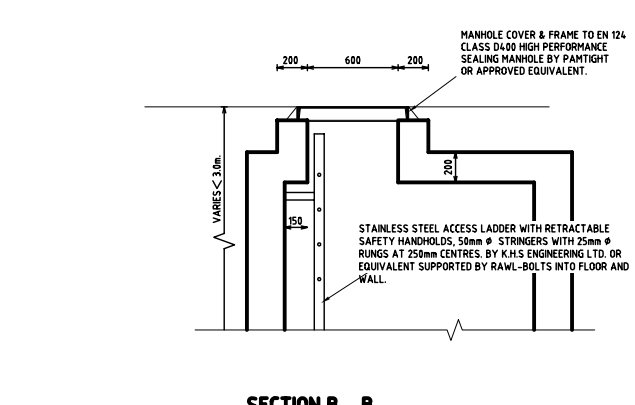


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Project:
Skibbereen Wastewater Discharge Licence Application

Title:
**Attachment C2
 Outfall Details**

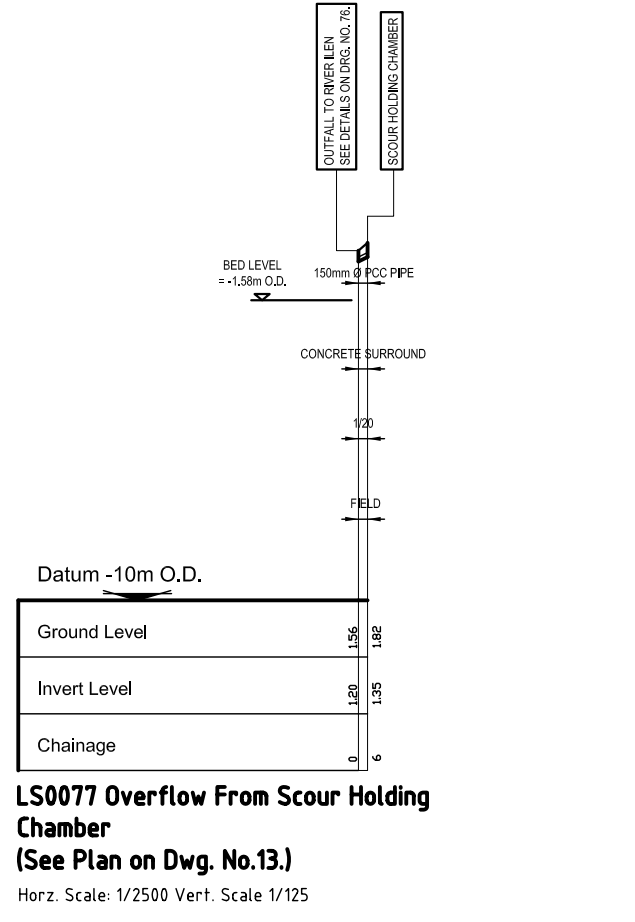
Drawn by:	BC	Job No:	MCW0538
Checked by:	MA	File No:	DG0009
Approved by:	BB	Drng. No:	
Scale:	AS SHOWN	SKIB C2-22	Rev: A01
Date:	June 2008		



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- When first step exceeds 450mm from top of M.H. frame, toe hole to be cast into roof slab with first step directly under.
- When roof slab is precast, the contractor shall bed the cover in Class B lime mortar and ensure a completely watertight sealed joint between wall and roof slab.

No.	Date	Amendment / Issue	App.
C01	Oct,07	Issue for Construction	BB
B01	Feb,07	Issue for Tender	BB
A03	Oct,05	Re - Issue for Approval	BB
A02	Feb,05	Re-Issue for Approval	BB
A01	Aug,03	Issue for Approval	BB
No.	Date	Amendment / Issue	App.



Client:

Cork County Council

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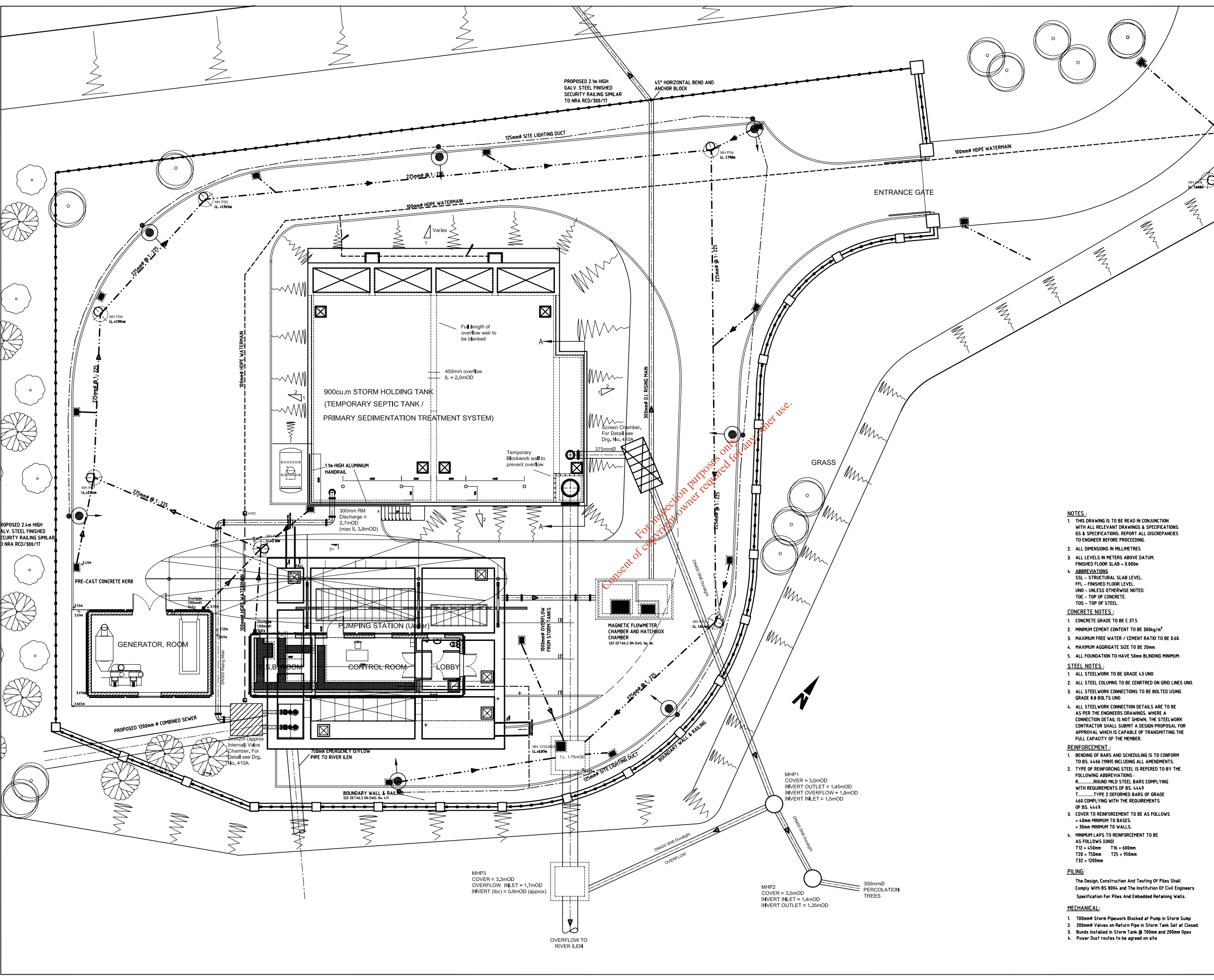
Project:

Skibbereen Sewerage Scheme Collection System

Title:

Special Manholes & Scour Valve Chamber

Drawn by:	SC	Job No:	MCW0153
Checked by:	BB	File No:	DG0075
Approved by:	BB	Drw. No:	75
Scale:	As Shown	Rev:	C01
Date:			



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No.	Date	Amendment / Issue	App.
A02	Jun'08	Issued for Approval	B.B.
A01	May'08	Issued for Approval/Review	B.B.

Client:



Cork County Council

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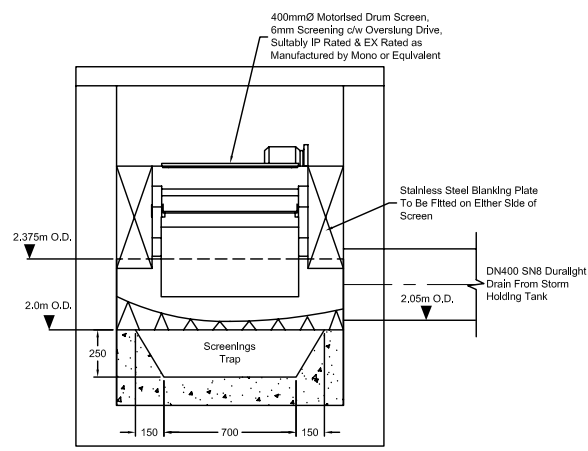
Project:
**Skibbereen Sewerage Scheme
 Collection System**

Title:
**Interim Pumping Arrangement
 Main Pumping Station &
 Storm Holding Tank
 Site Layout**

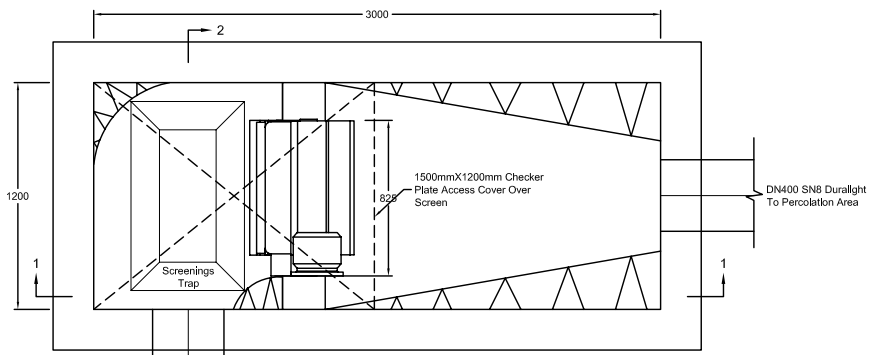
Drawn by:	T.O.F.	Job No:	MCW0153
Checked by:	S.T.	File No:	MCW0153DGG0401A
Approved by:	BB	Drg. No:	401A
Scale:	NTS	Rev:	A02
Date:	May '08		

- NOTES:**
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS & SPECIFICATIONS. GS & SPECIFICATIONS. REPORT ALL DISCREPANCIES TO ENGINEER BEFORE PROCEEDING.
 2. ALL DIMENSIONS IN MILLIMETRES
 3. ALL LEVELS IN METERS ABOVE DATUM. FINISHED FLOOR SLAB + 0.00m
 4. ABBREVIATIONS
 SSL - STRUCTURAL SLAB LEVEL
 FFL - FINISHED FLOOR LEVEL
 UNO - UNLESS OTHERWISE NOTED.
 TOC - TOP OF CONCRETE.
 TOS - TOP OF STEEL.
- CONCRETE NOTES:**
1. CONCRETE GRADE TO BE C 37.5
 2. MINIMUM CEMENT CONTENT TO BE 300kg/m³
 3. MAXIMUM FREE WATER / CEMENT RATIO TO BE 0.50.
 4. MAXIMUM AGGREGATE SIZE TO BE 20mm.
 5. ALL FOUNDATION TO HAVE 50mm BLINDING MINIMUM.
- STEEL NOTES:**
1. ALL STEELWORK TO BE GRADE 43 UNO
 2. ALL STEEL COLUMNS TO BE CENTRED ON GRID LINES UNO.
 3. ALL STEELWORK CONNECTIONS TO BE BOLTED USING GRADE 8.8 BOLTS UNO
 4. ALL STEELWORK CONNECTION DETAILS ARE TO BE AS PER THE ENGINEERS DRAWINGS. WHERE A CONNECTION DETAIL IS NOT SHOWN, THE STEELWORK CONTRACTOR SHALL SUBMIT A DESIGN PROPOSAL FOR APPROVAL WHICH IS CAPABLE OF TRANSMITTING THE FULL CAPACITY OF THE MEMBER.
- REINFORCEMENT:**
1. BENDING OF BARS AND SCHEDULING IS TO CONFORM TO BS. 4466 (1989) INCLUDING ALL AMENDMENTS.
 2. TYPE OF REINFORCING STEEL IS REFERRED TO BY THE FOLLOWING ABBREVIATIONS:
 R - ROUND MILD STEEL BARS COMPLYING WITH REQUIREMENTS OF BS. 4449
 T - TYPE 2 DEFORMED BARS OF GRADE 460 COMPLYING WITH THE REQUIREMENTS OF BS. 4449.
 3. COVER TO REINFORCEMENT TO BE AS FOLLOWS = 40mm MINIMUM TO BASES, = 30mm MINIMUM TO WALLS.
 4. MINIMUM LAPS TO REINFORCEMENT TO BE AS FOLLOWS (UNO)
 T12 = 450mm T16 = 600mm
 T20 = 750mm T25 = 950mm
 T32 = 1200mm
- PILEING:**
- The Design, Construction and Testing of Piles Shall Comply with BS 8004 and The Institution of Civil Engineers Specification For Piles And Embedded Retaining Walls.
- MECHANICAL:**
1. 700mm ϕ Storm Pipework Blocked at Pump in Storm Sump
 2. 200mm ϕ Valves on Return Pipe in Storm Tank Set at Closed.
 3. Bunds Installed in Storm Tank @ 700mm and 200mm Open
 4. Power Duct routes to be agreed on site

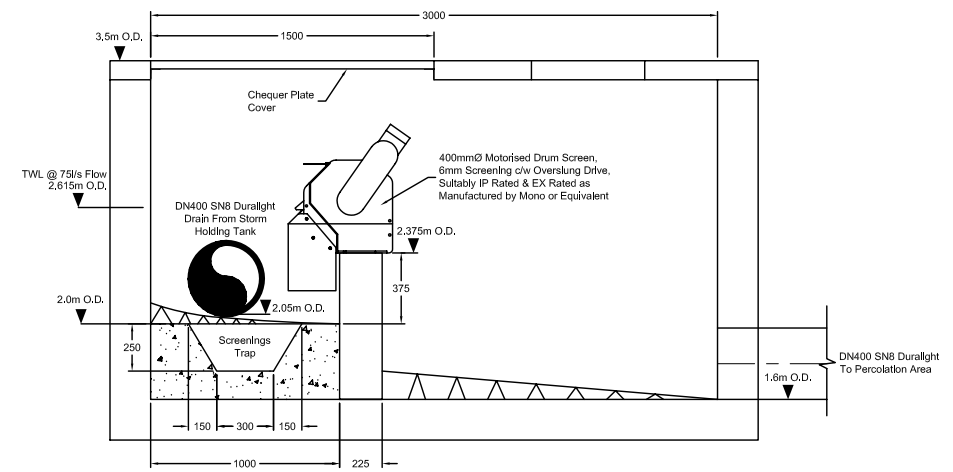
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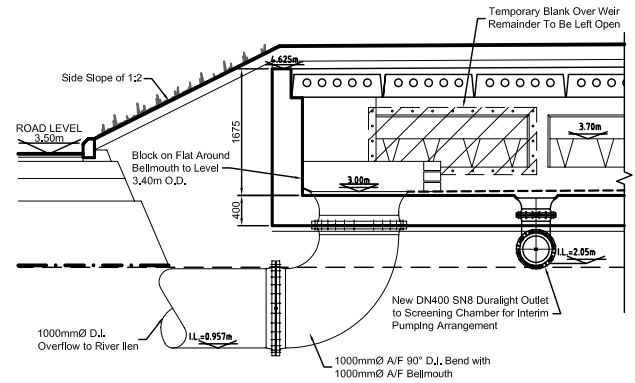
Screening Chamber Detail
Section 2-2
Scale 1:20



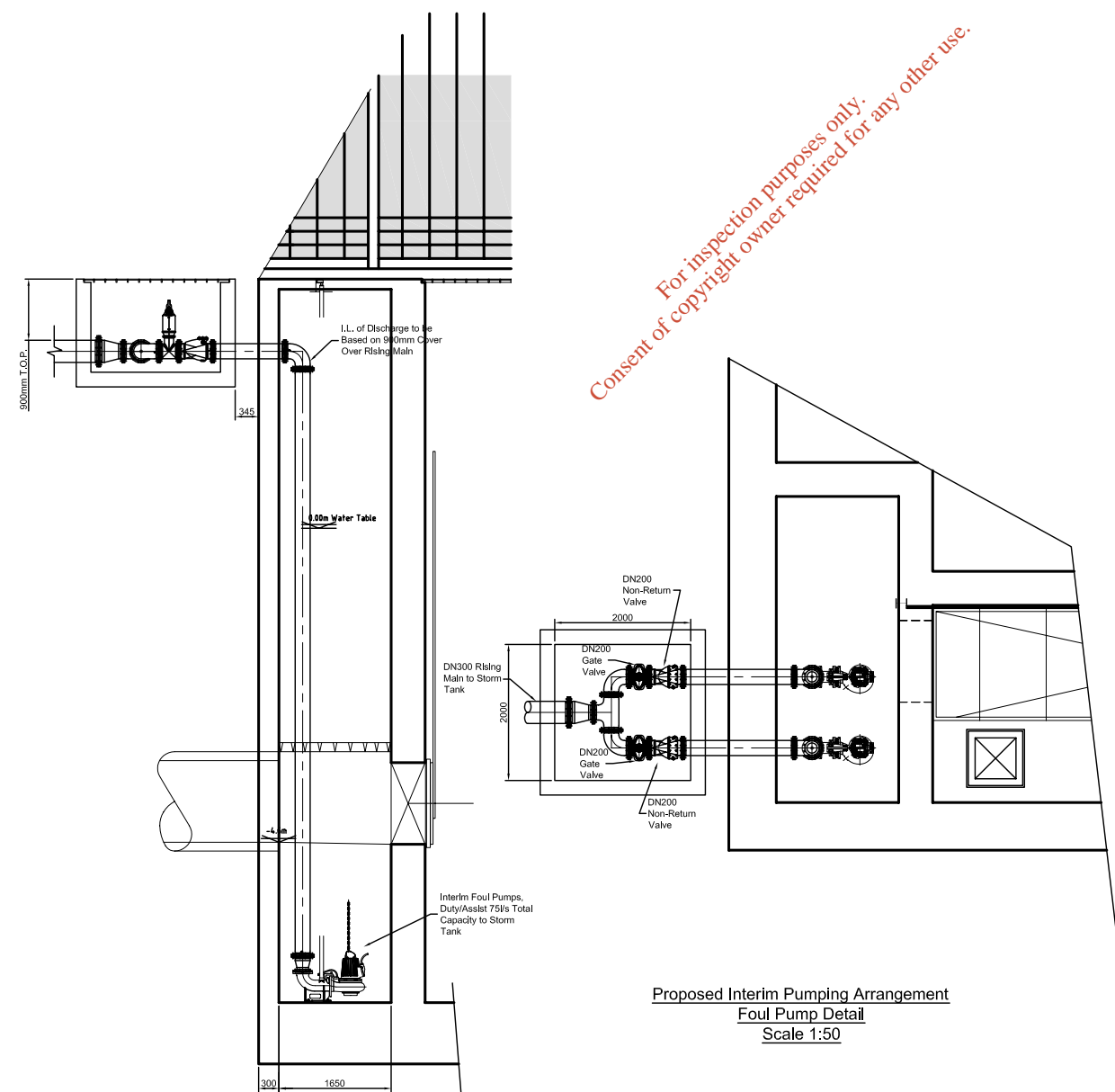
Screening Chamber Detail
Scale 1:20



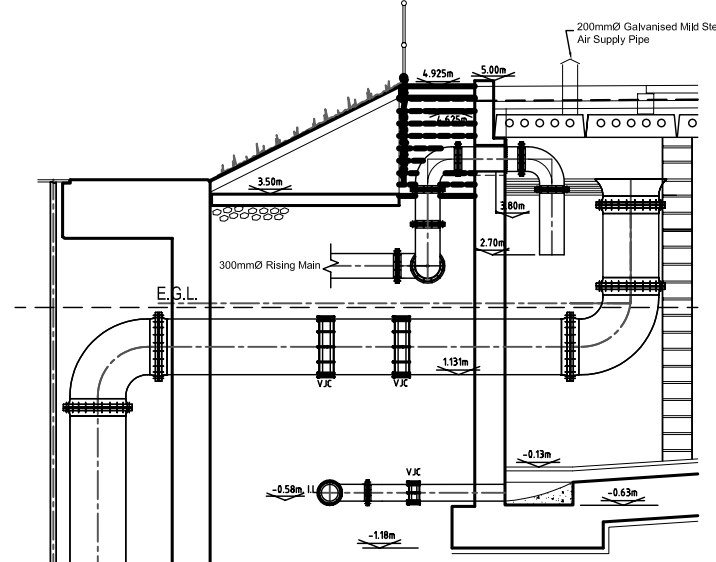
Screening Chamber Detail
Section 1-1
Scale 1:20



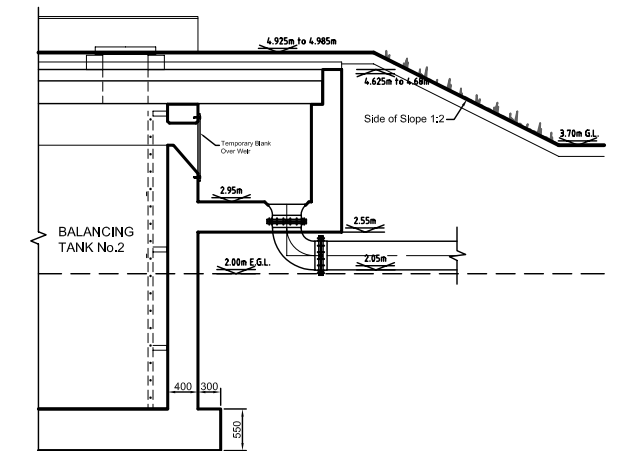
Section A-A
Storm Holding Tank Detail
Scale 1:50



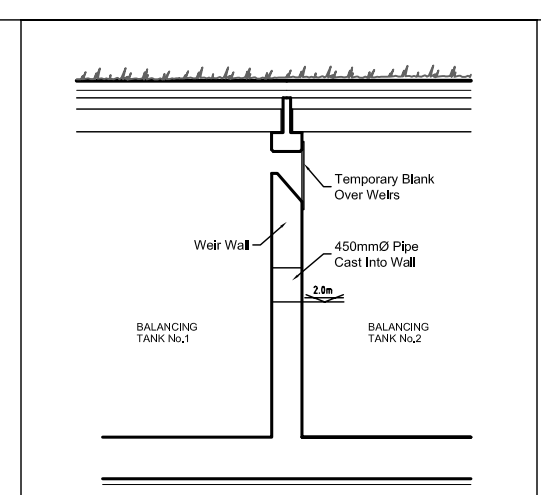
Proposed Interim Pumping Arrangement
Foul Pump Detail
Scale 1:50



Temporary Pumping Arrangement
Inlet Detail to Storm Tank
Scale 1:50



Section B-B
Storm Holding Tank Detail
Scale 1:50



Balancing Tank Weir Detail
Scale 1:50

- NOTES**
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No.	Date	Amendment / Issue	App.
A02 Jun'08		Issued for Approval	B.B.
A01 May'08		Issued for Approval/Review	B.B.

Client:



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Project:
**Skibbereen Sewerage Scheme
Collection System**

Title:
**Interim Pumping Arrangement
Proposed Section & Details**

Drawn by:	T.O.F.	Job No:	MCW0153
Checked by:	S.T.	File No:	MCW0153DG0410A
Approved by:	BB	Drg. No:	410A
Scale:	As Shown @ A1	Rev:	A02
Date:	May '08		

Attachment D.1

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

Discharge Point Code: SW01 Skibereen proposed

Source of Emission:	Primary Discharge from treatment Plant
Location:	2 Km west of the town centre, Coronea Townland
Grid Ref. (12 digit, 6E, 6N):	E110589 N033838
Name of receiving waters:	Ilen River
River Basin District:	South Western River Basin District
Designation of receiving waters:	None
Flow rate in receiving waters:	<div style="text-align: right;"> <u>0.16</u> m³.sec⁻¹ Dry Weather Flow <u>0.29</u> m³.sec⁻¹ 95%ile flow </div>

Emission Details:

(i) Volume emitted			
Normal/day	3240m ³	Maximum/day	3240m ³
Maximum rate/hour	135m ³	Period of emission (avg)	<u>60</u> min/hr <u>24</u> hr/day <u>365</u> day/yr
Dry Weather Flow	0.0125m ³ /sec		

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

Discharge Point Code: SW01Skibereen Proposed

Number	Substance	As discharged	
		Max. daily average	
1	pH	6.0 -8.5	
2	Temperature	30°C	
3	Electrical Conductivity(@25°C)	1000	
		Max. daily average (mg/l)	kg/day
4	Suspended Solids	35	113.4
5	Ammonia (as N)	Not applicable	Not applicable
6	Biochemical Oxygen Demand	25	81
7	Chemical Oxygen Demand	125	405
8	Total Nitrogen (as N)	15	48.6
9	Nitrite (as N)	Not applicable	Not applicable
10	Nitrate (as N)	Not applicable	Not applicable
11	Total Phosphorus (as P)	2.0	6.78
12	Orthophosphate (as P) ^{Note 1}	1.7	5.51
13	Sulphate (SO ₄)	Not applicable	Not applicable
14	Phenols (sum) ^{Note 2} (ug/l)	Not applicable	Not applicable

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: SW01 Skibbereen Proposed

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

Note 1: For waste water samples this monitoring should be undertaken on a sample filtered on 0.45 μm filter paper.

Note 2: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

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

Discharge Point Code: SW02 Skibbereen Interim

Source of Emission:	Interim primary discharge to temporary percolation area
Location:	Main Pumping Station ,The Marsh ,Skibbereen
Grid Ref. (12 digit, 6E, 6N):	E112218 N033886
Name of receiving waters:	Ilen River
River Basin District:	South Western River Basin District
Designation of receiving waters:	None
Flow rate in receiving waters:	<p style="text-align: right;">_____ 0.16 _____ m³.sec⁻¹ Dry Weather Flow</p> <p style="text-align: right;">_____ 0.29 _____ m³.sec⁻¹ 95%ile flow</p>

Emission Details:

(i) Volume emitted			
Normal/day	3240m ³	Maximum/day	3240m ³
Maximum rate/hour	135m ³	Period of emission (avg)	_____ 60 _____ min/hr _____ 24 _____ hr/day _____ 365 day/yr
Dry Weather Flow	0.0125m ³ /sec		

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

Discharge Point Code: SW02 Skibbereen Interim

Number	Substance	As discharged	
		Max. daily average	
1	pH	6.0 -8.5	
2	Temperature	30°C	
3	Electrical Conductivity(@25°C)	1000	
		Max. daily average (mg/l)	kg/day
4	Suspended Solids	200	648
5	Ammonia (as N)	Not applicable	Not applicable
6	Biochemical Oxygen Demand	250	810
7	Chemical Oxygen Demand	500	1620
8	Total Nitrogen (as N)	50	162
9	Nitrite (as N)	Not applicable	Not applicable
10	Nitrate (as N)	Not applicable	Not applicable
11	Total Phosphorus (as P)	12	38.9
12	Orthophosphate (as P) ^{Note 1}	10	32.4
13	Sulphate (SO ₄)	Not applicable	Not applicable
14	Phenols (sum) ^{Note 2} (ug/l)	Not applicable	Not applicable

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: SW02 Skibbereen Interim

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

Note 1: For waste water samples this monitoring should be undertaken on a sample filtered on 0.45 μm filter paper.

Note 2: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

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

Discharge Point Code: SW03 Skibbereen

Source of Emission:	Emergency Overflow from Inlet Manhole at Main Pumping Station
Location:	The Marsh, Skibbereen
Grid Ref. (12 digit, 6E, 6N):	E112228 N033824
Name of receiving waters:	Ilen River
River Basin District:	South Western River Basin District
Designation of receiving waters:	None
Flow rate in receiving waters:	<div style="text-align: right;"> <u>0.16</u> m³.sec⁻¹ Dry Weather Flow <u>0.29</u> m³.sec⁻¹ 95%ile flow </div>

Emission Details:

(i) Volume emitted not available			
Normal/day	m ³	Maximum/day	Not available 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: SW03 Skibbereen

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.

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: SW03 Skibbereen

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

Discharge Point Code: SW05 Skibbereen

Source of Emission:	Emergency Overflow from Coronea Pumping Station
Location:	Riverdale ,Coronea, Skibbereen
Grid Ref. (12 digit, 6E, 6N):	E111569 N034045
Name of receiving waters:	Ilen River
River Basin District:	South Western River Basin District
Designation of receiving waters:	None
Flow rate in receiving waters:	0.16 m ³ .sec ⁻¹ Dry Weather Flow 0.29 m ³ .sec ⁻¹ 95%ile flow

Emission Details:

(i) Volume emitted not available			
Normal/day	m ³	Maximum/day	Not available 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: SW05 Skibbereen

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.

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: SW05 Skibbereen

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

Discharge Point Code: SW06 Skibbereen

Source of Emission:	Emergency Overflow
Location:	Glencurragh Road
Grid Ref. (12 digit, 6E, 6N):	E111638 N034323
Name of receiving waters:	Ilen River
River Basin District:	South Western River Basin District
Designation of receiving waters:	None
Flow rate in receiving waters:	<div style="text-align: right;"> <u>0.16</u> m³.sec⁻¹ Dry Weather Flow <u>0.29</u> m³.sec⁻¹ 95%ile flow </div>

Emission Details:

(i) Volume emitted Not available			
Normal/day	m ³	Maximum/day	Not available 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: SW06 Skibbereen

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.

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: SW06 Skibbereen

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

Discharge Point Code: SW07 Skibbereen

Source of Emission:	Emergency Overflow
Location:	Marsh Road
Grid Ref. (12 digit, 6E, 6N):	E111974 N034385
Name of receiving waters:	ILEN RIVER
River Basin District:	South Western River Basin District
Designation of receiving waters:	none
Flow rate in receiving waters:	<div style="text-align: right;"> <u>0.16</u> m³.sec⁻¹ Dry Weather Flow <u>0.29</u> m³.sec⁻¹ 95%ile flow </div>

Emission Details:

(i) Volume emitted No data available			
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: SW07 Skibbereen

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.

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: SW07 Skibbereen

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(ii)(a): EMISSIONS TO SURFACE/GROUND WATERS
(Secondary Discharge Point) (1 table per discharge point)
Discharge Point Code: SW08 Skibbereen

Source of Emission:	Emergency Overflow from Mill Road Pumping Station		
Location:	Mill Road ,Skibbereen		
Grid Ref. (12 digit, 6E, 6N):	E112436 N034612		
Name of receiving waters:	Ilen River		
River Basin District:	South Western River Basin District		
Designation of receiving waters:	None		
Flow rate in receiving waters:		<u>0.16</u>	m ³ .sec ⁻¹ Dry Weather Flow
		<u>0.29</u>	m ³ .sec ⁻¹ 95%ile flow

Emission Details:

(i) Volume emitted No data available			
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: SW08 Skibbereen

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.

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: SW08 Skibbereen

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(ii)(a): EMISSIONS TO SURFACE/GROUND WATERS
(Secondary Discharge Point) (1 table per discharge point)
Discharge Point Code: SW09 Skibbereen

Source of Emission:	Emergency overflow from Scour Holding Tank
Location:	Riverdale
Grid Ref. (12 digit, 6E, 6N):	E11628 N034024
Name of receiving waters:	Ilen River
River Basin District:	South Western River Basin District
Designation of receiving waters:	None
Flow rate in receiving waters:	<div style="text-align: right;"> <u>0.16</u> m³.sec⁻¹ Dry Weather Flow <u>0.29</u> m³.sec⁻¹ 95%ile flow </div>

Emission Details:

(i) Volume emitted no data available			
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: SW09 Skibbereen

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.

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: SW09 Skibbereen

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: SW04

Source of Emission:	Overflow from Storm Holding Tanks at main pumping station
Location:	The Marsh Skibbereen
Grid Ref. (12 digit, 6E, 6N):	E112239 N033841
Name of receiving waters:	Ilen river
River Basin District:	South Western River Basin District
Designation of receiving waters:	none
Flow rate in receiving waters:	<div style="text-align: right;"> <u>0.16</u> m³.sec⁻¹ Dry Weather Flow <u>0.29</u> m³.sec⁻¹ 95%ile flow </div>

Emission Details:

(i) Volume emitted not available			
Normal/day	m ³	Maximum/day	m ³
Maximum rate/hour	m ³	Period of emission (avg)	<div style="text-align: right;"> _____Min/hr _____hr/day _____day/yr </div>

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

Discharge Point Code: SW05

Source of Emission:	Storm Overflow from Coronea Pumping Station		
Location:	Riverdale Skibbereen		
Grid Ref. (12 digit, 6E, 6N):	E112239 N033841		
Name of receiving waters:	Ilen river		
River Basin District:	South Western River Basin District		
Designation of receiving waters:	none		
Flow rate in receiving waters:		_____ 0.16 _____ m ³ .sec ⁻¹ Dry Weather Flow	
		_____ 0.29 _____ m ³ .sec ⁻¹ 95%ile flow	

Emission Details:

(i) Volume emitted not available			
Normal/day	m ³	Maximum/day	m ³
Maximum rate/hour	m ³	Period of emission (avg)	_____Min/hr _____hr/day _____day/yr

Attachment D.2

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Table D2

PT_CD	PT_TYPE	LA_NAME	RWB_TYPE	RWB_NAME	DESIGNATION	EASTING	NORTHING	VERIFIED
SW1	Primary Discharge	Cork County Council	River	River Ilen	None	110589	033838	N
SW2	Interim Primary Discharge	Cork County Council	River	River Ilen	None	112218	033886	N
SW3	Secondary Discharge	Cork County Council	River	River Ilen	None	112228	033824	N
SW4	Stormwater Overflow	Cork County Council	River	River Ilen	None	112239	033841	N
SW5	Secondary Discharge / Stormwater Overflow	Cork County Council	River	River Ilen	None	111569	034045	N
SW6	Secondary Discharge	Cork County Council	River	River Ilen	None	111638	034323	N
SW7	Secondary Discharge	Cork County Council	River	River Ilen	None	111974	034385	N
SW8	Secondary Discharge	Cork County Council	River	River Ilen	None	112436	034612	N
SW9	Secondary Discharge	Cork County Council	River	River Ilen	None	111628	034024	N

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Attachment E.1

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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)
Primary Discharge Points		
SW1 (Primary)	365 days/annum	1,182,600 m ³ /annum max. (Future 2,365,200 m ³ /annum max.)
SW2 (Interim Primary)	365 days/annum	1,182,600 m ³ /annum max.
Secondary Discharge Points		
SW3	Unknown (Emergency Overflow)	Unknown
SW5	Unknown (Emergency Overflow)	Unknown
SW6	Unknown (Emergency Overflow)	Unknown
SW7	Unknown (Emergency Overflow)	Unknown
SW8	Unknown (Emergency Overflow)	Unknown
SW9	Unknown (Emergency Overflow)	Unknown

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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 (m ³ /annum)	Complies with Definition of Storm Water Overflow
SW4	*20 to 30 times per year	Dependant on rainfall event	Yes
SW5	*5 times per year	Dependant on rainfall event	Yes

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The overflows listed above have recently been constructed as part of the ongoing Skibbereen Sewerage Scheme – Collection System contract. The exact quantity and frequency of overflows have yet to be determined as the overflows are not monitored at present. However, as part of the scheme, it is proposed to place monitors on the overflow lines to determine the frequency and volume at each location. It is expected that these monitors will be put in over the coming months.

Attachment E.2

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Attachment E.3

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Attachment E.4

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Attachment E4 Water abstraction Results Ilen River;
 Skibbereen at plant
 Ballyhilty Bridge
 Ballyhilty Bridge

Parameter	Total Coliform	E. coli	Faecal Strept	pH	Conductivity	BOD	Dissolved Ox	Phosphore	Nitrite	Ammonium	Nitrate	Suspended S	Colour	Manganese	Sulphate	Chloride	Dissolved	Dissolved Ox	Temperature	Odour	Copper	Zinc
						O2	O2	P2O5	NO2	NH4	NO3		Hz	Mn	SO4	Cl	Fe				Cu	
Max.	25000	5000	2000	9	1000	5	15	0.7	--	1.5	--	--	--	50	200	250	200	150	--	--	2	--
Target	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Min.	--	--	--	5.5	--	--	5	--	--	--	--	--	--	--	--	--	--	50	--	--	--	--
Sample Date	MPN/100ml	MPN/100ml	cfu/100ml	pH units	µS/cm	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	Hazen	µg/l	mg/l	mg/l	µg/l	% O2	Degrees C	Descriptive	mg/l	µg/l
04-Dec-07	1274	1203	66	7.4	165	< 1	8.1			0.035		< 1	50		10.5	25.2		74	11	No		
30-Apr-08	4880	600	38	7.7	154	< 1	12	0.008		< 0.026	6.09	< 1		< 20		24.2		112	10.6		< 0.005	< 20
30-Jul-08	54750	7540	> 1200	7.1	126	2.2	7.2	0.085	0.037	0.1	4.71	5.6		72			228	73	15.7		0.002	< 20

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Attachment F.1

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The following tables - Table F.1(i)(a), Table F.1(i)(b), Table F.1(ii)(a), Table F.1(ii)(b) - are not applicable due to the fact that the Wastewater Treatment Plant in Skibbereen has not been constructed yet.

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

Discharge Point Code: _____

MONITORING POINT CODE: _____

Parameter	Results (mg/l ^{Note 1})				Sampling method (grab, drift etc.)	Limit of Quantitation	Analysis method / technique
	Date	Date	Date	Date			
pH	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Temperature	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Electrical Conductivity (@25°C)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Suspended Solids	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Ammonia (as N)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Biochemical Oxygen Demand	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Chemical Oxygen Demand	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Dissolved Oxygen	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Hardness (as CaCO ₃)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Total Nitrogen (as N)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Nitrite (as N)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Nitrate (as N)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Total Phosphorus (as P)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Orthophosphate (as P) - unfiltered	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Sulphate (SO ₄)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Phenols (sum) ^{Note 2} (ug/l)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

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: _____

MONITORING POINT CODE: _____

Parameter	Results (µg/l)				Sampling method (grab, drift etc.)	Limit of Quantitation	Analysis method / technique
	Date	Date	Date	Date			
Atrazine	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Dichloromethane	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Simazine	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Toluene	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Tributyltin	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Xylenes	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Arsenic	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Chromium	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Copper	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Cyanide	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Fluoride	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Lead	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Nickel	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Zinc	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Boron	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Cadmium	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Mercury	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Selenium	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Barium	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

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

Discharge Point Code: _____

MONITORING POINT CODE: _____

Parameter	Results (mg/l ^{Note 1})				Sampling method (grab, drift etc.)	Limit of Quantitation	Analysis method / technique
	Date	Date	Date	Date			
pH	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Temperature	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Electrical Conductivity (@25°C)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Suspended Solids	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Ammonia (as N)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Biochemical Oxygen Demand	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Chemical Oxygen Demand	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Dissolved Oxygen	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Hardness (as CaCO ₃)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Total Nitrogen (as N)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Nitrite (as N)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Nitrate (as N)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Total Phosphorus (as P)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Orthophosphate (as P) - unfiltered	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Sulphate (SO ₄)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Phenols (sum) ^{Note 2} (ug/l)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

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: _____

MONITORING POINT CODE: _____

Parameter	Results (µg/l)				Sampling method (grab, drift etc.)	Limit of Quantitation	Analysis method / technique
	Date	Date	Date	Date			
Atrazine	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Dichloromethane	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Simazine	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Toluene	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Tributyltin	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Xylenes	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Arsenic	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Chromium	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Copper	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Cyanide	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Fluoride	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Lead	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Nickel	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Zinc	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Boron	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Cadmium	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Mercury	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Selenium	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Barium	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Attachment F.2

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Attachment G.1

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SECTION G1: Compliance with Council Directives

The most recent national Water Services Investment Programme lists the Skibbereen Sewerage Scheme for inclusion in the 2007 – 2009 WSIP. The Cork County page of the WSIP shows the estimated cost of the project as €20,000,000.

In November 2007, construction of the Skibbereen Sewerage Scheme, Collection System commenced. Prior to the commencement of the collection system construction, the existing sewerage network discharged directly to the River Ilen and Caol Stream at numerous locations. As part of the collection system contract, these discharges are to be collected in the new system, which will ultimately convey them to the proposed wastewater treatment plant. Therefore, the ongoing construction of the sewerage scheme and the proposed construction of the treatment plant represent the most significant programme of improvements for reducing emissions to the aquatic environment.

The collection system contract consists of the following: -

- The construction of the following approximate lengths of new sewers and associated manholes: -

- 150 mm diameter pcc pipe	10 m
- 225 mm diameter pcc pipe	7,498 m
- 300 mm diameter pcc pipe	2,371 m
- 375 mm diameter pcc pipe	1,736 m
- 450 mm diameter pcc pipe	509 m
- 525 mm diameter pcc pipe	104 m
- 600 mm diameter pcc pipe	321 m
- 750 mm diameter pcc pipe	529 m
- 900 mm diameter pcc pipe	369 m
- 1,200 mm diameter pcc pipe	277 m
- 100 mm diameter DI pipe	306 m
- 200 mm diameter DI pipe	30 m
- 250 mm diameter DI pipe	66 m
- 300 mm diameter DI pipe	1,248 m
- 350 mm diameter DI pipe	284 m
- 1000 mm diameter DI pipe	58 m
- Manholes	332 no.

- The construction of a major foul and storm pumping station and storm water holding tanks in the Marsh.
- The construction of submersible foul pumping station and storm water holding tank at Coronea.
- The construction of submersible foul pumping stations on Mill Road, Marsh Road and Glencurragh Road.
- The installation of service connections from properties to connect to the new sewage system.

From the Main Pumping Station, the sewage will be pumped forward to the proposed treatment plant, which is to be completed under a separate Design-Build-Operate contract. Interim measures are currently being used to deal with the discharges from the system until such time as the treatment plant is constructed.

It is anticipated that the Main Pumping Station interim arrangement will be operational by August 2008, and may continue to operate as such for up to two years, pending completion of the treatment plant.

The Time for Completion for the Collection System contract is 72 weeks from the commencement date, and the works are currently on schedule. The contract is due for completion in early 2009.

This attachment contains the Cork County page of the WSIP, which shows the estimated cost of the project as €20,000,000.

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Cork County

Water Services Investment Programme 2007 - 2009

Schemes at Construction	W/S	Est. Cost	Schemes to start 2009 contd.	W/S	Est. Cost
Cork North			Cork South		
Mitchelstown Sewerage Scheme (Nutrient Removal)	S	221,000	Ballincollig Sewerage Scheme (Upgrade) (G)	S	22,248,000
Cork South			Cork Lower Harbour Sewerage Scheme (excl. Crosshaven SS)	S	73,542,000
Ballyvourney/ Ballymakeery Sewerage Scheme	S	3,049,000	Shannagarry/ Garryvoe/ Ballycotton Sewerage Scheme	S	3,780,000
Cobh/ Middleton/ Carrigtwohill Water Supply Scheme	W	10,135,000	Youghal Sewerage Scheme	S	14,420,000
Cork Lower Harbour Sewerage Scheme (Crosshaven SS) (G)	S	4,850,000	Cork West		
Cork Water Strategy Study (G)	W	941,000	Ballydehob Sewerage Scheme	S	683,000
Kinsale Sewerage Scheme	S	20,000,000	Bantry Water Supply Scheme	W	14,935,000
Middleton Sewerage Scheme (Infiltration Reduction) (G)	S	2,078,000	Clonakilty Sewerage Scheme (Plant Capacity Increase)	S	3,677,000
		41,274,000	Courtmacsherry/ Timoleague Sewerage Scheme	S	2,472,000
Schemes to start 2007			Dunmanway Regional Water Supply Scheme Stage 1	W	12,669,000
					164,629,000
Cork North			Serviced Land Initiative		
North Cork Grouped DBO Wastewater Treatment Plant (Buttevant, Doneraile & Kilbrin)	S	5,150,000	Cork North		
Cork West			Ballyclough Water Supply Scheme	W	139,000
Skibbereen Sewerage Scheme	S	20,000,000	Ballyhooley Improvement Scheme	W/S	139,000
		25,150,000	Broghil-Rathgoggin Sewerage Scheme	S	406,000
Schemes to start 2008			Bweening Water Supply Scheme	W	115,000
Cork North			Churchtown Sewerage Scheme (incl. Water)	W/S	543,000
Mallow/ Ballyvinter Regional Water Supply Scheme (H) W		8,652,000	Clondulane Sewage Treatment Plant	S	417,000
Mallow Sewerage Scheme (H)	S	3,408,000	Freemount Sewerage Scheme	S	150,000
Cork South			Pike Road Sewerage Scheme (incl. Water)	W/S	2,080,000
Ballincollig Sewerage Scheme (Nutrient Removal) (G)	S	948,000	Rathcormac Sewerage Scheme (incl. Water)	W/S	555,000
Ballingeary Sewerage Scheme	S	1,296,000	Spa Glen Sewerage Scheme	S	736,000
Bandon Sewerage Scheme Stage 2	S	14,729,000	Uplands Fermoy Sewerage Scheme (incl. Water)	W/S	1,174,000
City Environs (CASP) Strategic Study (G)	S	153,000	Watergrasshill Water Supply Scheme (incl. Sewerage) (G)	W/S	4,151,000
Cloghroe Sewerage Scheme (Upgrade)	S	683,000	Cork South		
Coachford Water Supply Scheme	W	1,318,000	Ballincollig Sewerage Scheme (Barry's Rd Foul and Storm Drainage) (G)	S	1,164,000
Garretstown Sewerage Scheme	S	2,153,000	Belgooley, Water Supply Scheme (incl. Sewerage)	W/S	2,913,000
Inniscarra Water Treatment Plant Extension Phase 1	W	2,678,000	Blamey Water Supply Scheme (Ext. to Station Rd) (G)	W	416,000
Little Island Sewerage Scheme (G)	S	2,200,000	Carrigtwohill Sewerage Scheme (Treatment and Storm Drain) (G)	S	7,632,000
Cork West			Castlematyr Wastewater Treatment Plant Extension	S	1,200,000
Bantry Sewerage Scheme	S	7,148,000	Crookstown Sewerage Scheme (incl. Water)	W/S	1,200,000
Dunmanway Sewerage Scheme	S	2,153,000	Dripsey Water Supply Scheme (incl. Sewerage)	W/S	1,112,000
Leap/ Baltimore Water Supply Scheme	W	6,365,000	Glounthane Sewerage Scheme (G)	S	1,576,000
Schull Water Supply Scheme	W	5,253,000	Innishannon Sewerage Scheme	S	277,000
		61,137,000	Innishannon Wastewater Treatment Plant	S	694,000
Schemes to start 2009			Kerrypike Sewerage Scheme	S	832,000
Cork North			Kerrypike Water Supply Scheme	W	416,000
Banteer/Dromahane Regional Water Supply Scheme	W	1,576,000	Killeagh Wastewater Treatment Plant Extension	S	1,200,000
Conna Regional Water Supply Scheme Extension	W	2,627,000	Killeagh Water Supply Scheme (includes Sewerage)	W/S	485,000
Cork NE Water Supply Scheme	W	4,326,000	Killeens Sewerage Scheme	S	420,000
Cork NW Regional Water Supply Scheme	W	6,046,000	Kinagleary Sewerage Scheme	S	694,000
Millstreet Wastewater Treatment Plant (Upgrade)	S	1,628,000	Middleton Wastewater Treatment Plant Extension	S	4,050,000

Attachment G.2

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Attachment G.3

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SECTION G3: Impact Mitigation

The most recent national Water Services Investment Programme lists the Skibbereen Sewerage Scheme for inclusion in the 2007 – 2009 WSIP. The Cork County page of the WSIP shows the estimated cost of the project as €20,000,000.

In November 2007, construction of the Skibbereen Sewerage Scheme, Collection System commenced. Prior to the commencement of the collection system construction, the existing sewerage network discharged directly to the River Ilen and Caol Stream at numerous locations. As part of the collection system contract, these discharges are to be collected in the new system, which will ultimately convey them to the proposed wastewater treatment plant. Therefore, the ongoing construction of the sewerage scheme and the proposed construction of the treatment plant represent the most significant programme of improvements for reducing emissions to the aquatic environment.

The collection system contract consists of the following: -

- The construction of the following approximate lengths of new sewers and associated manholes: -

-	150 mm diameter pcc pipe	10 m
-	225 mm diameter pcc pipe	7,498 m
-	300 mm diameter pcc pipe	2,371 m
-	375 mm diameter pcc pipe	1,736 m
-	450 mm diameter pcc pipe	509 m
-	525 mm diameter pcc pipe	104 m
-	600 mm diameter pcc pipe	321 m
-	750 mm diameter pcc pipe	529 m
-	900 mm diameter pcc pipe	369 m
-	1,200 mm diameter pcc pipe	277 m
-	100 mm diameter DI pipe	306 m
-	200 mm diameter DI pipe	30 m
-	250 mm diameter DI pipe	66 m
-	300 mm diameter DI pipe	1,248 m
-	350 mm diameter DI pipe	284 m
-	1000 mm diameter DI pipe	58 m
-	Manholes	332 no.

- The construction of a major foul and storm pumping station and storm water holding tanks in the Marsh.
- The construction of submersible foul pumping station and storm water holding tank at Coronea.
- The construction of submersible foul pumping stations on Mill Road, Marsh Road and Glencurragh Road.
- The installation of service connections from properties to connect to the new sewage system.

From the Main Pumping Station, the sewage will be pumped forward to the proposed treatment plant, which is to be completed under a separate Design-Build-Operate contract. Interim measures are currently being used to deal with the discharges from the system until such time as the treatment plant is constructed.

It is anticipated that the Main Pumping Station interim arrangement will be operational by August 2008, and may continue to operate as such for up to two years, pending completion of the treatment plant.

The Time for Completion for the Collection System contract is 72 weeks from the commencement date, and the works are currently on schedule. The contract is due for completion in early 2009.

This attachment contains the Cork County page of the WSIP, which shows the estimated cost of the project as €20,000,000.

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Cork County

Water Services Investment Programme 2007 - 2009

Schemes at Construction	W/S	Est. Cost	Schemes to start 2009 contd.	W/S	Est. Cost
Cork North			Cork South		
Mitchelstown Sewerage Scheme (Nutrient Removal)	S	221,000	Ballincollig Sewerage Scheme (Upgrade) (G)	S	22,248,000
Cork South			Cork Lower Harbour Sewerage Scheme (excl. Crosshaven SS)	S	73,542,000
Ballyvourney/ Ballymakeery Sewerage Scheme	S	3,049,000	Shannagarry/ Garryvoe/ Ballycotton Sewerage Scheme	S	3,780,000
Cobh/ Midleton/ Carrigtwohill Water Supply Scheme	W	10,135,000	Youghal Sewerage Scheme	S	14,420,000
Cork Lower Harbour Sewerage Scheme (Crosshaven SS) (G)	S	4,850,000	Cork West		
Cork Water Strategy Study (G)	W	941,000	Ballydehob Sewerage Scheme	S	683,000
Kinsale Sewerage Scheme	S	20,000,000	Bantry Water Supply Scheme	W	14,935,000
Midleton Sewerage Scheme (Infiltration Reduction) (G)	S	2,078,000	Clonakilty Sewerage Scheme (Plant Capacity Increase)	S	3,677,000
		41,274,000	Courtmacsherry/ Timoleague Sewerage Scheme	S	2,472,000
Schemes to start 2007			Dunmanway Regional Water Supply Scheme Stage 1	W	12,669,000
					164,629,000
Cork North			Serviced Land Initiative		
North Cork Grouped DBO Wastewater Treatment Plant (Buttevant, Doneraile & Kilbrin)	S	5,150,000	Cork North		
Cork West			Ballyclough Water Supply Scheme	W	139,000
Skibbereen Sewerage Scheme	S	20,000,000	Ballyhooley Improvement Scheme	W/S	139,000
		25,150,000	Broghil-Rathgoggin Sewerage Scheme	S	406,000
Schemes to start 2008			Bweening Water Supply Scheme	W	115,000
Cork North			Churchtown Sewerage Scheme (incl. Water)	W/S	543,000
Mallow/ Ballyvinter Regional Water Supply Scheme (H) W		8,652,000	Clondulane Sewage Treatment Plant	S	417,000
Mallow Sewerage Scheme (H)	S	3,408,000	Freemount Sewerage Scheme	S	150,000
Cork South			Pike Road Sewerage Scheme (incl. Water)	W/S	2,080,000
Ballincollig Sewerage Scheme (Nutrient Removal) (G)	S	948,000	Rathcormac Sewerage Scheme (incl. Water)	W/S	555,000
Ballingeary Sewerage Scheme	S	1,296,000	Spa Glen Sewerage Scheme	S	736,000
Bandon Sewerage Scheme Stage 2	S	14,729,000	Uplands Fermoy Sewerage Scheme (incl. Water)	W/S	1,174,000
City Environs (CASP) Strategic Study (G)	S	153,000	Watergrasshill Water Supply Scheme (incl. Sewerage) (G)	W/S	4,151,000
Cloghroe Sewerage Scheme (Upgrade)	S	683,000	Cork South		
Coachford Water Supply Scheme	W	1,318,000	Ballincollig Sewerage Scheme (Barry's Rd Foul and Storm Drainage) (G)	S	1,164,000
Garretstown Sewerage Scheme	S	2,153,000	Belgooley, Water Supply Scheme (incl. Sewerage)	W/S	2,913,000
Inniscarra Water Treatment Plant Extension Phase 1	W	2,678,000	Blamey Water Supply Scheme (Ext. to Station Rd) (G)	W	416,000
Little Island Sewerage Scheme (G)	S	2,200,000	Carrigtwohill Sewerage Scheme (Treatment and Storm Drain) (G)	S	7,632,000
Cork West			Castlematyr Wastewater Treatment Plant Extension	S	1,200,000
Bantry Sewerage Scheme	S	7,148,000	Crookstown Sewerage Scheme (incl. Water)	W/S	1,200,000
Dunmanway Sewerage Scheme	S	2,153,000	Dripsey Water Supply Scheme (incl. Sewerage)	W/S	1,112,000
Leap/ Baltimore Water Supply Scheme	W	6,365,000	Glounthane Sewerage Scheme (G)	S	1,576,000
Schull Water Supply Scheme	W	5,253,000	Innishannon Sewerage Scheme	S	277,000
		61,137,000	Innishannon Wastewater Treatment Plant	S	694,000
Schemes to start 2009			Kerrypike Sewerage Scheme	S	832,000
Cork North			Kerrypike Water Supply Scheme	W	416,000
Banteer/Dromahane Regional Water Supply Scheme	W	1,576,000	Killeagh Wastewater Treatment Plant Extension	S	1,200,000
Conna Regional Water Supply Scheme Extension	W	2,627,000	Killeagh Water Supply Scheme (includes Sewerage)	W/S	485,000
Cork NE Water Supply Scheme	W	4,326,000	Killeens Sewerage Scheme	S	420,000
Cork NW Regional Water Supply Scheme	W	6,046,000	Kinagleary Sewerage Scheme	S	694,000
Millstreet Wastewater Treatment Plant (Upgrade)	S	1,628,000	Midleton Wastewater Treatment Plant Extension	S	4,050,000

Attachment G.4

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SECTION G4: Storm Water Overflow

The most recent national Water Services Investment Programme lists the Skibbereen Sewerage Scheme for inclusion in the 2007 – 2009 WSIP. The Cork County page of the WSIP shows the estimated cost of the project as €20,000,000.

In November 2007, construction of the Skibbereen Sewerage Scheme, Collection System commenced. Prior to the commencement of the collection system construction, the existing sewerage network discharged directly to the River Ilen and Caol Stream at numerous locations. As part of the collection system contract, these discharges are to be collected in the new system, which will ultimately convey them to the proposed wastewater treatment plant. Therefore, the ongoing construction of the sewerage scheme and the proposed construction of the treatment plant represent the most significant programme of improvements for reducing emissions to the aquatic environment.

The collection system contract consists of the following: -

- The construction of the following approximate lengths of new sewers and associated manholes: -

-	150 mm diameter pcc pipe	10 m
-	225 mm diameter pcc pipe	7,498 m
-	300 mm diameter pcc pipe	2,371 m
-	375 mm diameter pcc pipe	1,736 m
-	450 mm diameter pcc pipe	509 m
-	525 mm diameter pcc pipe	104 m
-	600 mm diameter pcc pipe	321 m
-	750 mm diameter pcc pipe	529 m
-	900 mm diameter pcc pipe	369 m
-	1,200 mm diameter pcc pipe	277 m
-	100 mm diameter DI pipe	306 m
-	200 mm diameter DI pipe	30 m
-	250 mm diameter DI pipe	66 m
-	300 mm diameter DI pipe	1,248 m
-	350 mm diameter DI pipe	284 m
-	1000 mm diameter DI pipe	58 m
-	Manholes	332 no.

- The construction of a major foul and storm pumping station and storm water holding tanks in the Marsh.
- The construction of submersible foul pumping station and storm water holding tank at Coronea.
- The construction of submersible foul pumping stations on Mill Road, Marsh Road and Glencurragh Road.
- The installation of service connections from properties to connect to the new sewage system.

From the Main Pumping Station, the sewage will be pumped forward to the proposed treatment plant, which is to be completed under a separate Design-Build-Operate contract. Interim measures are currently being used to deal with the discharges from the system until such time as the treatment plant is constructed.

It is anticipated that the Main Pumping Station interim arrangement will be operational by August 2008, and may continue to operate as such for up to two years, pending completion of the treatment plant.

The Time for Completion for the Collection System contract is 72 weeks from the commencement date, and the works are currently on schedule. The contract is due for completion in early 2009.

This attachment contains the Cork County page of the WSIP, which shows the estimated cost of the project as €20,000,000.

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Cork County

Water Services Investment Programme 2007 - 2009

Schemes at Construction	W/S	Est. Cost	Schemes to start 2009 contd.	W/S	Est. Cost
Cork North			Cork South		
Mitchelstown Sewerage Scheme (Nutrient Removal)	S	221,000	Ballincollig Sewerage Scheme (Upgrade) (G)	S	22,248,000
Cork South			Cork Lower Harbour Sewerage Scheme (excl. Crosshaven SS)	S	73,542,000
Ballyvourney/ Ballymakeery Sewerage Scheme	S	3,049,000	Shannagarry/ Garryvoe/ Ballycotton Sewerage Scheme	S	3,780,000
Cobh/ Midleton/ Carrigtwohill Water Supply Scheme	W	10,135,000	Youghal Sewerage Scheme	S	14,420,000
Cork Lower Harbour Sewerage Scheme (Crosshaven SS) (G)	S	4,850,000	Cork West		
Cork Water Strategy Study (G)	W	941,000	Ballydehob Sewerage Scheme	S	683,000
Kinsale Sewerage Scheme	S	20,000,000	Bantry Water Supply Scheme	W	14,935,000
Midleton Sewerage Scheme (Infiltration Reduction) (G)	S	2,078,000	Clonakilty Sewerage Scheme (Plant Capacity Increase)	S	3,677,000
		41,274,000	Courtmacsherry/ Timoleague Sewerage Scheme	S	2,472,000
Schemes to start 2007			Dunmanway Regional Water Supply Scheme Stage 1	W	12,669,000
					164,629,000
Cork North			Serviced Land Initiative		
North Cork Grouped DBO Wastewater Treatment Plant (Buttevant, Doneraile & Kilbrin)	S	5,150,000	Cork North		
Cork West			Ballyclough Water Supply Scheme	W	139,000
Skibbereen Sewerage Scheme	S	20,000,000	Ballyhooley Improvement Scheme	W/S	139,000
		25,150,000	Broghil-Rathgoggin Sewerage Scheme	S	406,000
Schemes to start 2008			Bweeng Water Supply Scheme	W	115,000
Cork North			Churchtown Sewerage Scheme (incl. Water)	W/S	543,000
Mallow/ Ballyvinter Regional Water Supply Scheme (H) W		8,652,000	Clondulane Sewage Treatment Plant	S	417,000
Mallow Sewerage Scheme (H)	S	3,408,000	Freemount Sewerage Scheme	S	150,000
Cork South			Pike Road Sewerage Scheme (incl. Water)	W/S	2,080,000
Ballincollig Sewerage Scheme (Nutrient Removal) (G)	S	948,000	Rathcormac Sewerage Scheme (incl. Water)	W/S	555,000
Ballingeary Sewerage Scheme	S	1,296,000	Spa Glen Sewerage Scheme	S	736,000
Bandon Sewerage Scheme Stage 2	S	14,729,000	Uplands Fermoy Sewerage Scheme (incl. Water)	W/S	1,174,000
City Environs (CASP) Strategic Study (G)	S	153,000	Watergrasshill Water Supply Scheme (incl. Sewerage) (G)	W/S	4,151,000
Cloghroe Sewerage Scheme (Upgrade)	S	683,000	Cork South		
Coachford Water Supply Scheme	W	1,318,000	Ballincollig Sewerage Scheme (Barry's Rd Foul and Storm Drainage) (G)	S	1,164,000
Garretstown Sewerage Scheme	S	2,153,000	Belgooley, Water Supply Scheme (incl. Sewerage)	W/S	2,913,000
Inniscarra Water Treatment Plant Extension Phase 1	W	2,678,000	Blamey Water Supply Scheme (Ext. to Station Rd) (G)	W	416,000
Little Island Sewerage Scheme (G)	S	2,200,000	Carrigtwohill Sewerage Scheme (Treatment and Storm Drain) (G)	S	7,632,000
Cork West			Castlematyr Wastewater Treatment Plant Extension	S	1,200,000
Bantry Sewerage Scheme	S	7,148,000	Crookstown Sewerage Scheme (incl. Water)	W/S	1,200,000
Dunmanway Sewerage Scheme	S	2,153,000	Dripsey Water Supply Scheme (incl. Sewerage)	W/S	1,112,000
Leap/ Baltimore Water Supply Scheme	W	6,365,000	Glounthane Sewerage Scheme (G)	S	1,576,000
Schull Water Supply Scheme	W	5,253,000	Innishannon Sewerage Scheme	S	277,000
		61,137,000	Innishannon Wastewater Treatment Plant	S	694,000
Schemes to start 2009			Kerrypike Sewerage Scheme	S	832,000
Cork North			Kerrypike Water Supply Scheme	W	416,000
Banteer/Dromahane Regional Water Supply Scheme	W	1,576,000	Killeagh Wastewater Treatment Plant Extension	S	1,200,000
Conna Regional Water Supply Scheme Extension	W	2,627,000	Killeagh Water Supply Scheme (includes Sewerage)	W/S	485,000
Cork NE Water Supply Scheme	W	4,326,000	Killeens Sewerage Scheme	S	420,000
Cork NW Regional Water Supply Scheme	W	6,046,000	Kinagleary Sewerage Scheme	S	694,000
Millstreet Wastewater Treatment Plant (Upgrade)	S	1,628,000	Midleton Wastewater Treatment Plant Extension	S	4,050,000

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 contain(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	✓
(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,	B.1	✓
(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	✓
(d)	state the population equivalent of the agglomeration to which the application relates,	B.9	✓
(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,	B.2 & C.1	✓
(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 & G.1	✓

Regulation 16(1) continued.../		Attachment Number	Checked by Applicant ✓
(g)	identify monitoring and sampling points and indicate proposed arrangements for the monitoring of discharges and, if Regulation 17 does not apply, provide details of the likely environmental consequences of any such discharges,	Not Applicable Refer to E.2	✓
(h)	in the case of an existing waste water treatment plant, specify the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application,	Not Applicable	✓
(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,	C.1	✓
(j)	give particulars of the nearest downstream drinking water abstraction point or points to the discharge point or points,	Not Applicable	✓
(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	✓
(l)	give detail of compliance with relevant monitoring requirements and treatment standards contained in any applicable Council Directives of Regulations,	A.1 and G.1	✓
(m)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work.	A.1 and G.1	✓
(n)	Any other information as may be stipulated by the Agency.	Not Applicable	✓

Regulation 16(3) Without prejudice to Regulation 16 (1) and (2), an application for a licence shall be accompanied by -		Attachment Number	Checked by the applicant ✓
(a)	a copy of the notice of intention to make an application given pursuant to Regulation 9,	B.8	✓
(b)	where appropriate, a copy of the notice given to a relevant water services authority under Regulation 13,	Not Applicable	✓
(c)	Such other particulars, drawings, maps, reports and supporting documentation as are necessary to identify and describe, as appropriate -		
	(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 and B.5	✓
	(ii) the point or points at which monitoring and sampling are undertaken or are to be undertaken,	N/A Refer to E.2	✓
(d)	such fee as is appropriate having regard to the provisions of Regulations 38 and 39.	B. 9	✓
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.			
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 format specified by the Agency.			
	Signed original.	H	✓
	2 hardcopies of application provided or 2 CD versions of application (PDF files) provided.	✓	✓
	1 CD of geo-referenced digital files provided.	✓	✓
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			
	EIA provided if applicable	✓	✓
	2 hardcopies of EIS provided if applicable.	✓	✓
	2 CD versions of EIS, as PDF files, provided.	✓	✓