

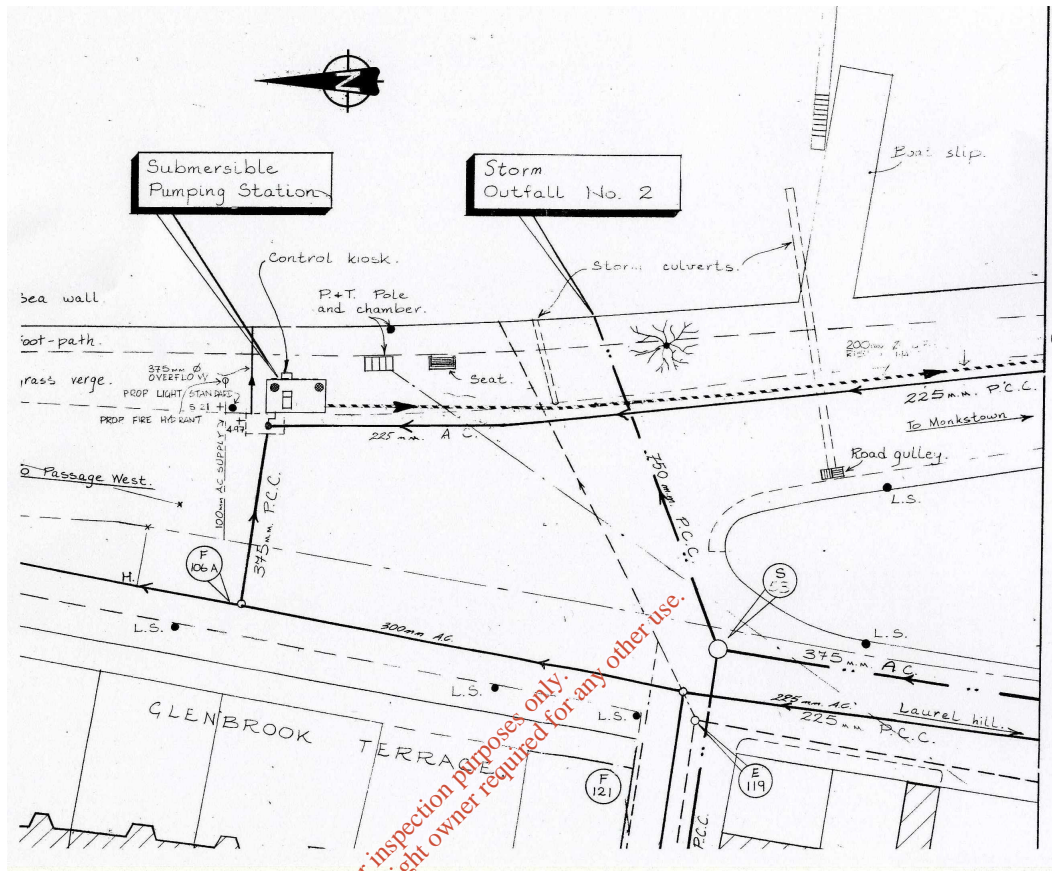
Cork County Council

Wastewater Discharge Licence Application under S.I. 684 of 2007 Regulations

Section C: Attachment No. C1
Operational Information Requirements

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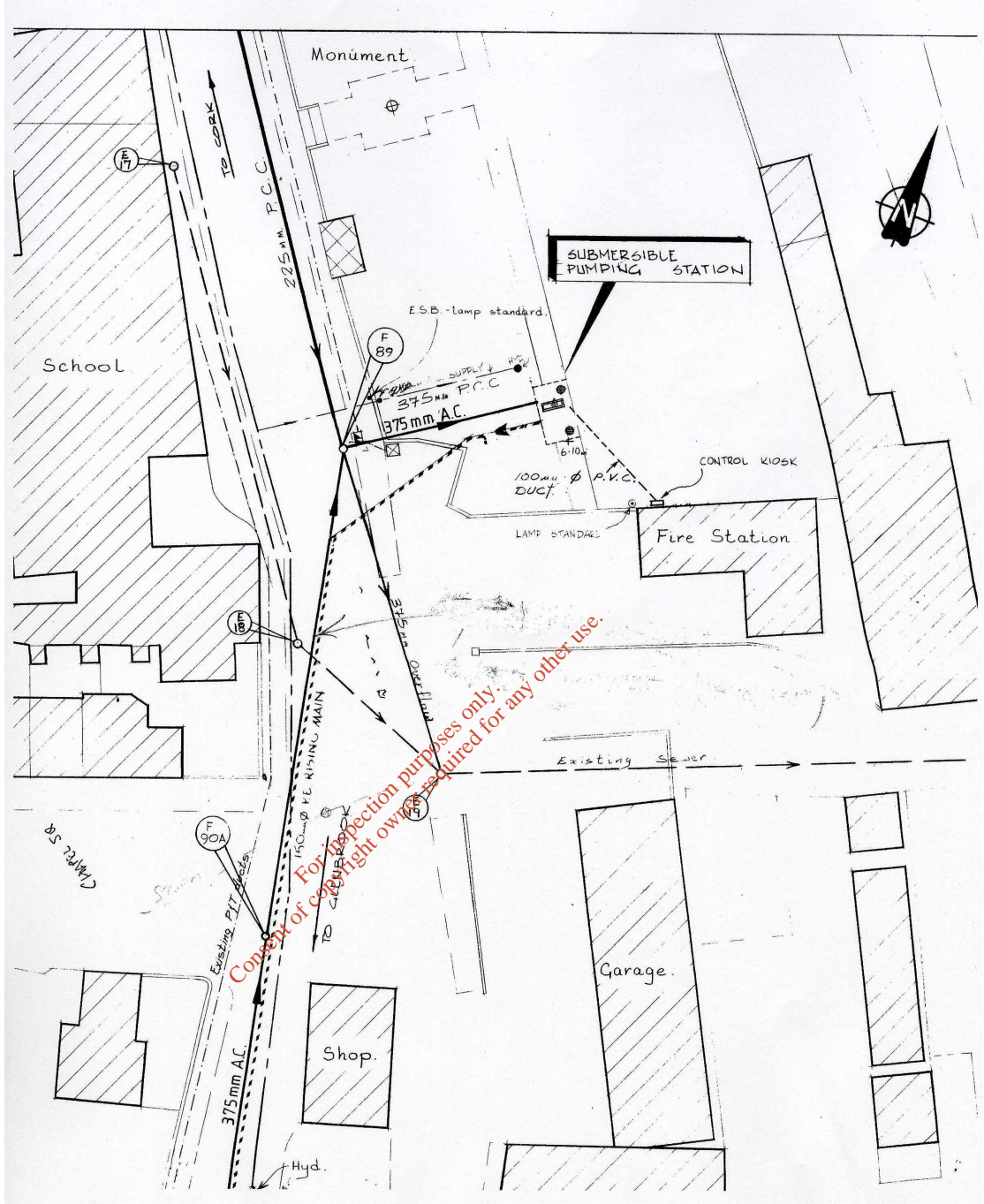
Attachment - Section C.1



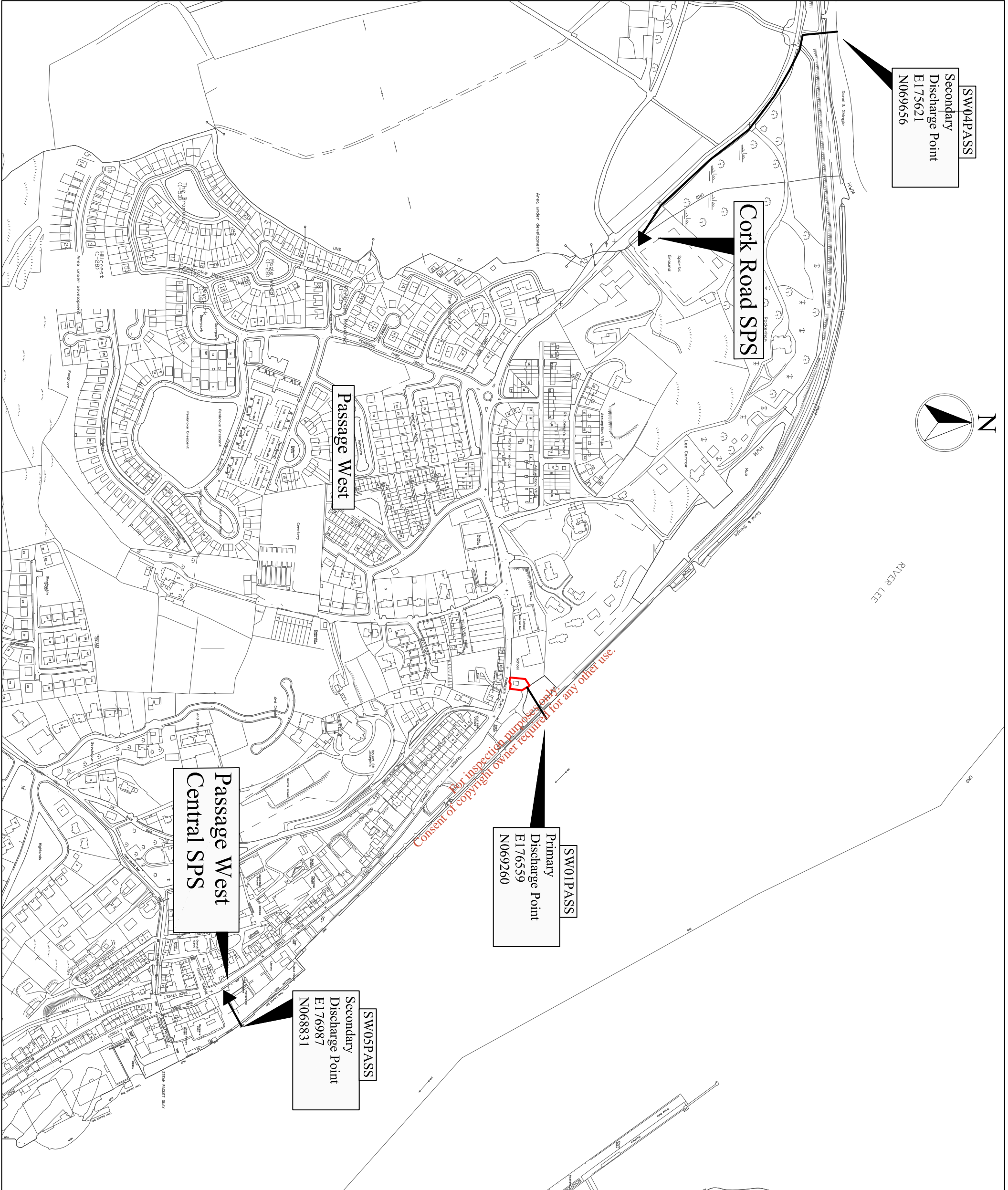
Drawing 03 – Layout plan of Glenbrook Pumping Station

Attachment - Section C.1

Attachment - Section C.1



Drawing 06 – Layout plan of Passage West Central Pumping Station



SW04PASS
Secondary
Discharge Point
E175621
N069656

Cork Road SPS

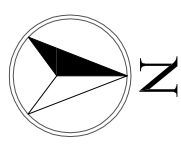
Passage West

Passage West
Central SPS

SW01PASS
Primary
Discharge Point
E176559
N069260

SW05PASS
Secondary
Discharge Point
E176987
N068831

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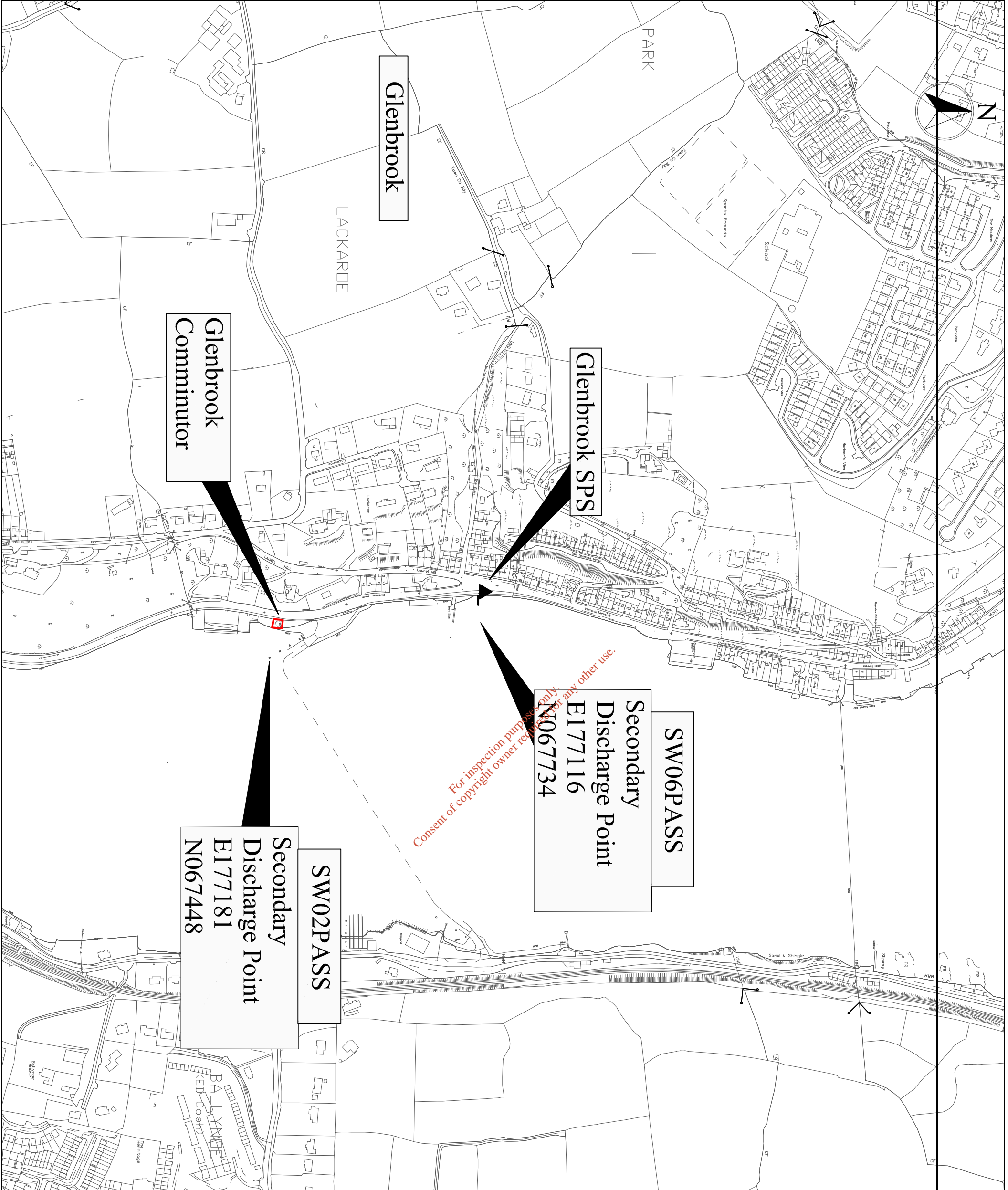
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County Hall, Cork.

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Director of Services
South Cork.

Project:
EPA LICENCE APPLICATION
Passage West / Monkstown

Title:
Attachment Section C.1.
Location of Pumping Stations
{ 1 of 3 }

Designed:	Checked:	Scale:	Drawing No.
BOL	FW	1:5,000	Map 14
Drawn:	Approved:	Date:	
BOL	FW	22/08/08	



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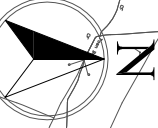
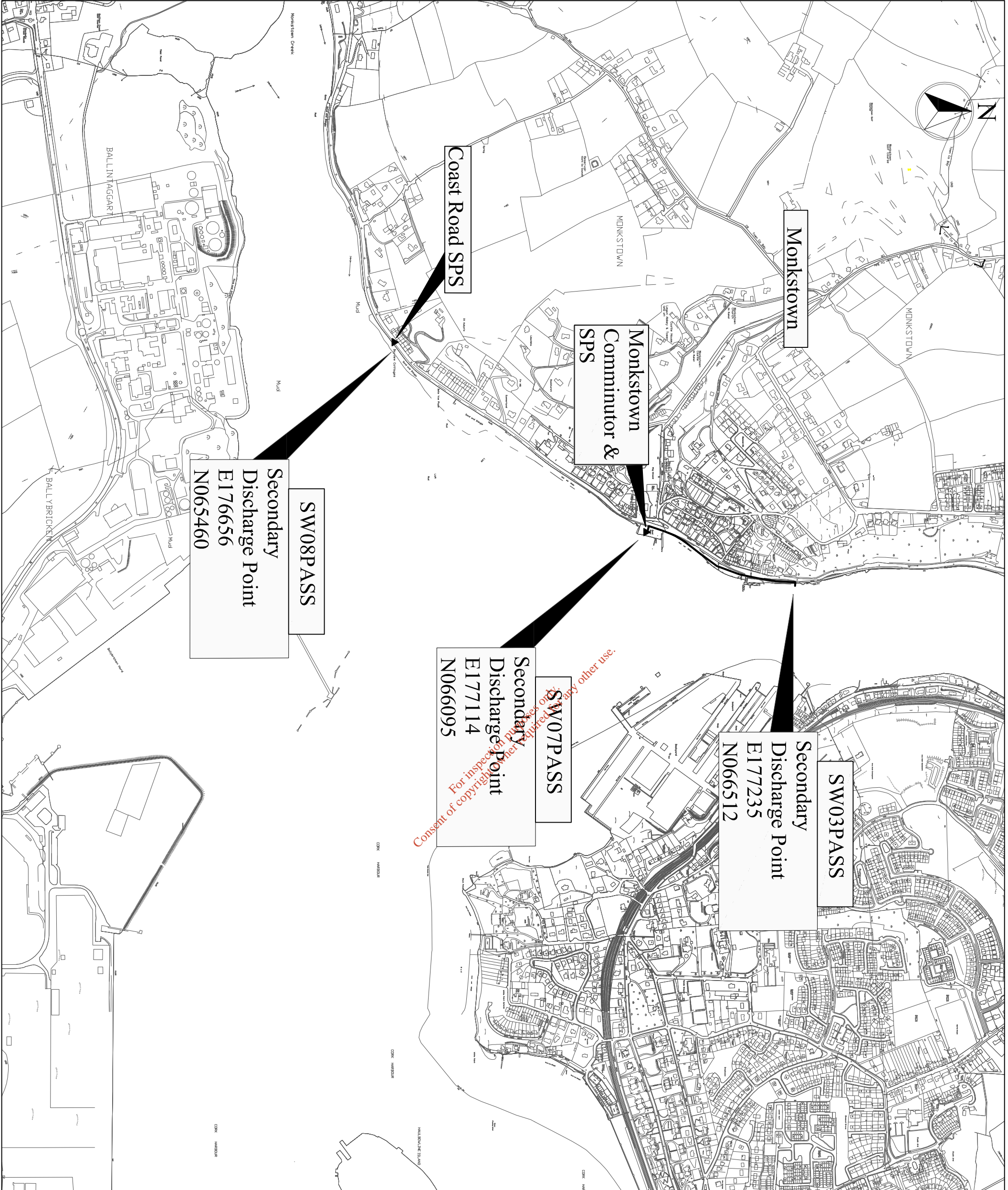
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Project:
EPA LICENCE APPLICATION
 Passage West / Monkstown

Title:
Attachment Section C.1. - Location
of Pumping Stations {2 of 3}

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Drawn:	Approved:	Date:	
BOL	FW	22/08/08	



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 Director of Services
 South Cork.

Project:
EPA LICENCE APPLICATION
 Passage West / Monkstown

Title:
Attachment Section C.1. - Location
of Pumping Stations {3of3}

Designed:	Checked:	Scale:	Drawing No.
BOL	FW	1:10,000	Map 16
Drawn:	Approved:	Date:	
BOL	FW	22/08/08	

Cork County Council

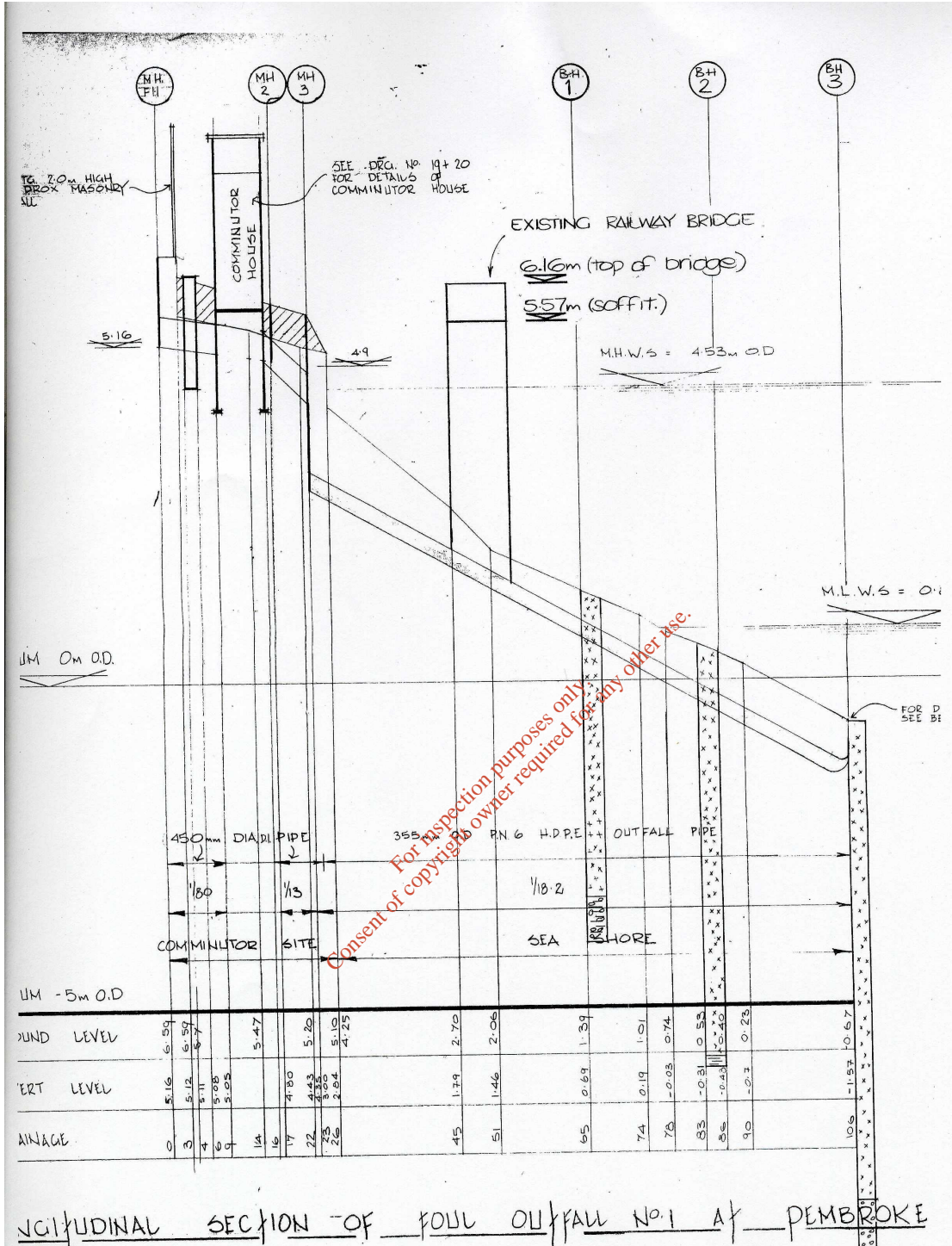
Wastewater Discharge Licence Application under S.I. 684 of 2007 Regulations

Section C: Attachment No. C2
Outfall Design and Construction

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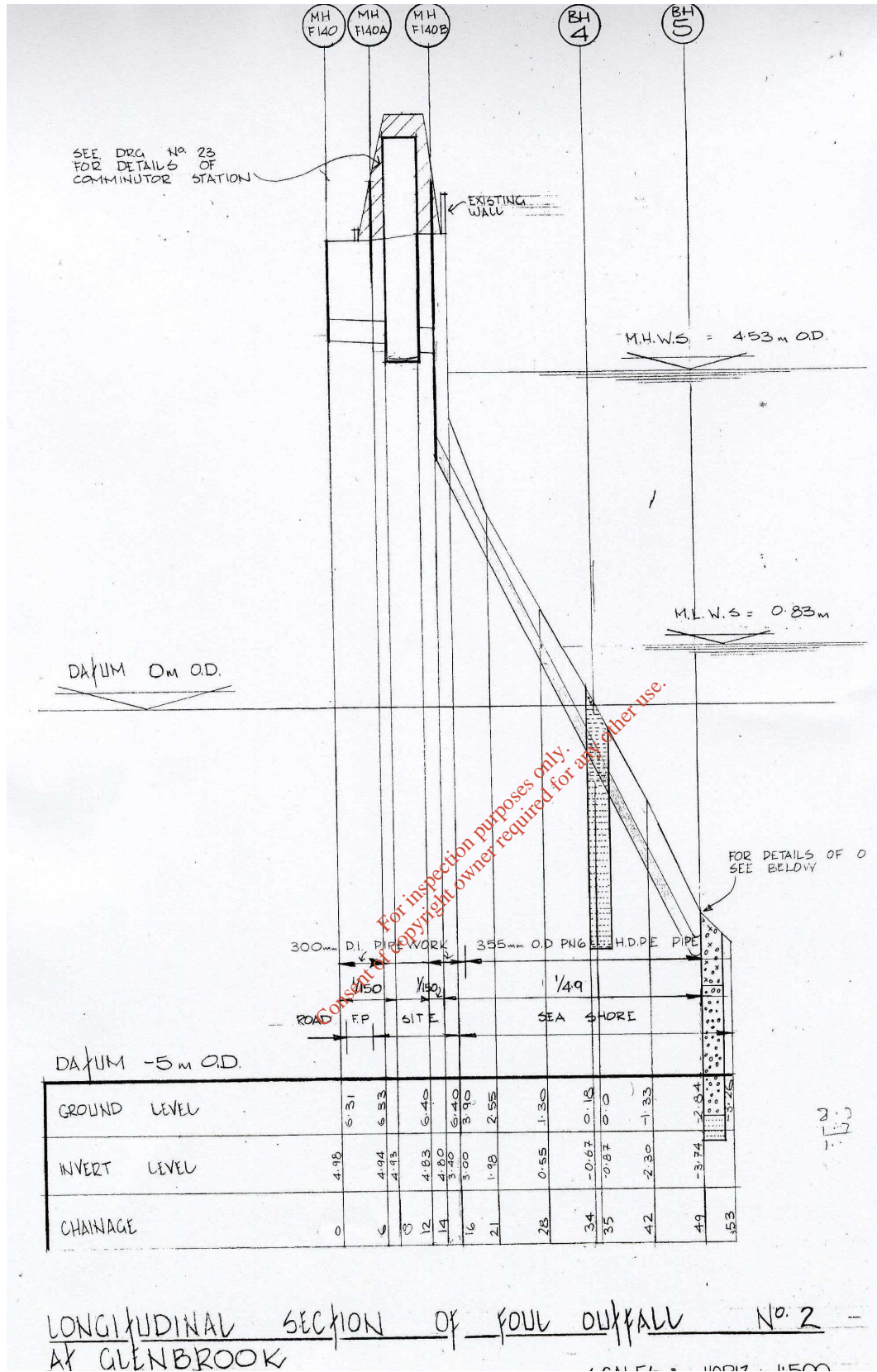
Attachment C.2. Outfall Design and Construction.

Attachment Section C.2



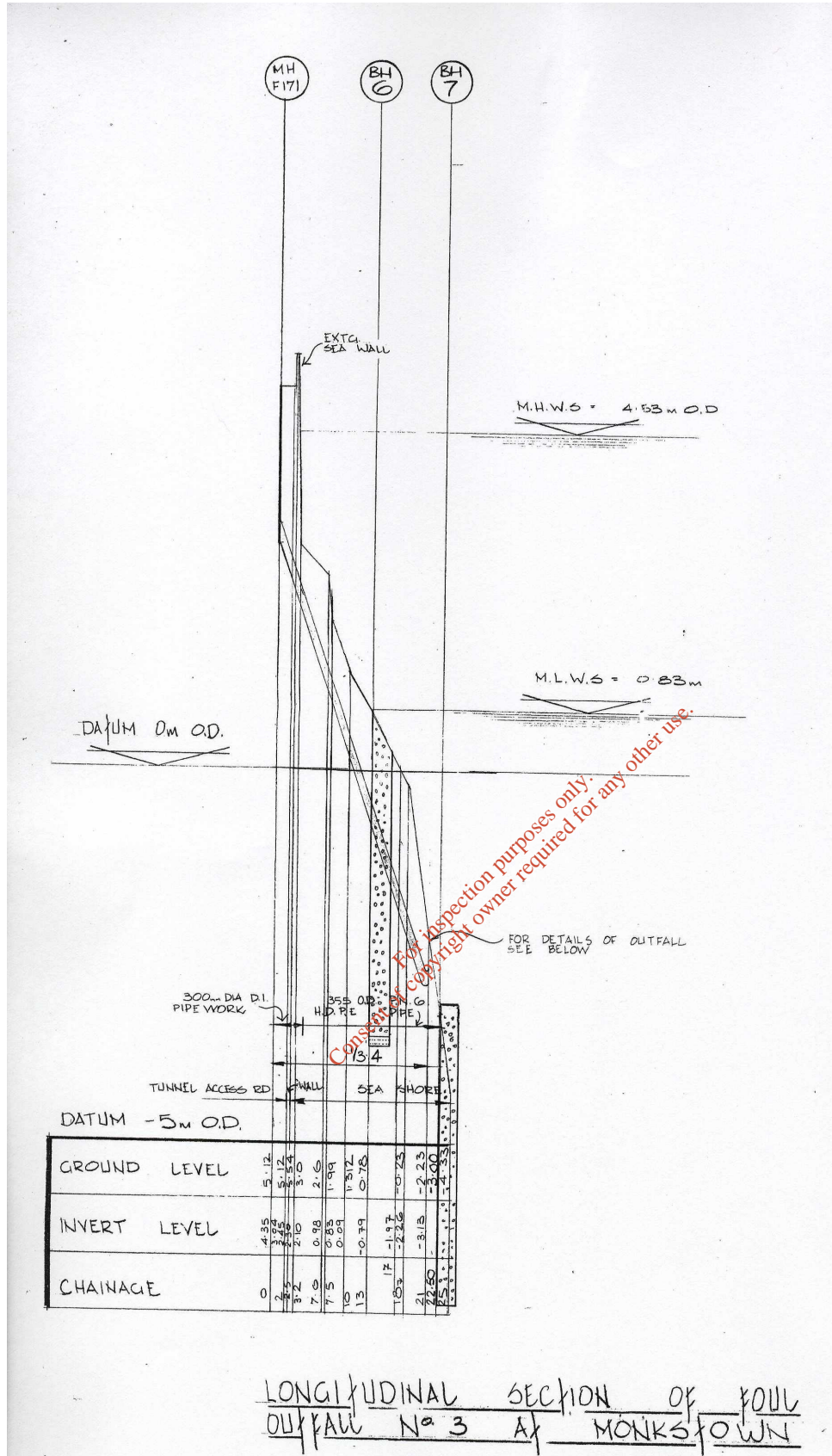
Drawing 07- Construction Details - Pembroke Foul Outfall

Attachment – Section C.2



LONGITUDINAL SECTION OF FOUL OUTFALL No. 2 AT GLENBROOK
 Drawing 08 – Construction Details – Glenbrook Foul Outfall.

Attachment - Section C.2



LONGITUDINAL SECTION OF FOUL
OUTFALL No 3 AT MONKSTOWN

Drawing 09 – Construction Details – Monkstown Foul Outfall

Cork County Council

Wastewater Discharge Licence Application under S.I. 684 of 2007 Regulations

Section D: Attachment No. D1
Discharges to Surface Water

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

Discharge Point Code: SW01PASS

Source of Emission:	Passage West/Monkstown Agglomeration
Location:	Cork Lower Harbour Townland Pembroke
Grid Ref. (12 digit, 6E, 6N):	E176559, N069260
Name of receiving waters:	River Lee West Passage, Cork Harbour
River Basin District:	South Western River Basin District
Designation of receiving waters:	Sensitive Waters
Flow rate in receiving waters:	Tidal _____ m ³ .sec ⁻¹ Dry Weather Flow _____ m ³ .sec ⁻¹ 95%ile flow

Emission Details:

(i) Volume emitted			
Normal/day	811 m ³	Maximum/day	1187 m ³
Maximum rate/hour	Not Available	Period of emission (avg)	____ 60 ____ min/hr ____ 24 ____ hr/day ____ 365 ____ day/yr
Dry Weather Flow	217 m ³ /sec		

Note: DWF is estimated. Discharges include seawater intrusion.

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

Discharge Point Code: SW01PASS

Number	Substance	As discharged	
		Max. daily average	
1	pH	6.5 -8.5	
2	Temperature	25°C	
3	Electrical Conductivity(@25°C)	10000	
		Max. daily average (mg/l)*	Kg/day*
4	Suspended Solids	350	415.5
5	Ammonia (as N)	25	29.7
6	Biochemical Oxygen Demand	300	356.1
7	Chemical Oxygen Demand	600	712.2
8	Total Nitrogen (as N)	50	59.4
9	Nitrite (as N)	0.014	0.003038
10	Nitrate (as N)	0.78	<0.38626
11	Total Phosphorus (as P)	15	17.8
12	Orthophosphate (as P) ^{Note 1}	10	11.9
13	Sulphate (SO ₄)	43.6	9.4612
14	Phenols (sum) ^{Note 2} (ug/l)	10	0.012

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: SW01PASS

Number	Substance	As discharged		
		Max. daily average (µg/l)	kg/day*	kg/year*
1	Atrazine	<0.01	<0.00217	<0.79205
2	Dichloromethane	<5.0	<1.085	<396.025
3	Simazine	<0.01	<0.00217	<0.79205
4	Toluene	<0.1	<0.0217	<7.9205
5	Tributyltin	<0.05	<0.01085	<3.96025
6	Xylenes	<0.1	<0.0217	<7.9205
7	Arsenic	<2.0	<0.434	<158.41
8	Chromium	<0.01	<0.00217	<0.79205
9	Copper	0.0454	0.0098518	3.595907
10	Cyanide	<5.0	<1.085	<396.025
11	Fluoride	360	78.12	28513.8
12	Lead	<0.003	<0.000651	<0.237615
13	Nickel	<0.005	<0.001085	<0.396025
14	Zinc	0.053	0.011501	4.197865
15	Boron	<0.2	<0.0434	<15.841
16	Cadmium	<0.001	<0.000217	<0.079205
17	Mercury	<0.2	<0.0434	<15.841
18	Selenium	<2.0	<0.434	<158.41
19	Barium	0.0247	0.0053599	1.96563635

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)(a): EMISSIONS TO SURFACE/GROUND WATERS
 (Secondary Discharge Point) (1 table per discharge point)
Discharge Point Code: SW02PASS

Source of Emission:	Passage West/Monkstown Agglomeration
Location:	Cork Lower Harbour Townland Lackaroe
Grid Ref. (12 digit, 6E, 6N):	E177181, N067448
Name of receiving waters:	River Lee West Passage, Cork Harbour
River Basin District:	South Western River Basin District
Designation of receiving waters:	Sensitive
Flow rate in receiving waters:	Tidal _____ m ³ .sec ⁻¹ Dry Weather Flow _____ m ³ .sec ⁻¹ 95%ile flow _____

Emission Details:

(i) Volume emitted			
Normal/day	680m ³	Maximum/day	730 m ³
Maximum rate/hour	Not Available	Period of emission (avg)	60 min/hr 24 hr/day 365 day/yr
Dry Weather Flow	Not Available		

Note: Flows include seawater intrusion.

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: SW02PASS

Number	Substance	As discharged	
		Max. daily average	
1	pH	6.5 -8.5	
2	Temperature	25°C	
3	Electrical Conductivity (@25°C)	10000	
		Max. daily average (mg/l)*	Kg/day*
4	Suspended Solids	350	255.5
5	Ammonia (as N)	25	18.3
6	Biochemical Oxygen Demand	300	219
7	Chemical Oxygen Demand	600	438
8	Total Nitrogen (as N)	50	36.5
9	Nitrite (as N)	Not applicable	Not applicable
10	Nitrate (as N)	Not applicable	Not applicable
11	Total Phosphorus (as P) ^{Note 1}	15	10.95.
12	Orthophosphate (as P)	10	7.3
13	Sulphate (SO ₄)	Not applicable	Not applicable
14	Phenols (sum) ^{Note 2} (ug/l)	10	0.0073

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: SW02PASS

Number	Substance	As discharged		
		Max. daily average (µg/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	500	0.37	135.1
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 0.45µm 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: SW03PASS

Source of Emission:	Passage West/Monkstown Agglomeration
Location:	Cork Lower Harbour Townland Monkstown
Grid Ref. (12 digit, 6E, 6N):	E177235, N066512
Name of receiving waters:	River Lee West Passage, Cork Harbour
River Basin District:	South Western River Basin District
Designation of receiving waters:	Sensitive
Flow rate in receiving waters:	Tidal _____ m ³ .sec ⁻¹ Dry Weather Flow _____ m ³ .sec ⁻¹ 95%ile flow _____

Emission Details:

(i) Volume emitted			
Normal/day	619 m ³	Maximum/day	Not Available
Maximum rate/hour	Not Available	Period of emission (avg)	60 min/hr 24 hr/day 365 day/yr
Dry Weather Flow	133 m ³ /sec		

Note: DWF is estimated. Discharges include seawater intrusion.

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: SW03PASS

Number	Substance	As discharged	
		Max. daily average	619
1	pH	6.5- 8.5	
2	Temperature	25°	
3	Electrical Conductivity (@25°C)	15000	
		Max. daily average (mg/l)*	Kg/day*
4	Suspended Solids	350	216.7
5	Ammonia (as N)	25	15.5
6	Biochemical Oxygen Demand	300	185.7
7	Chemical Oxygen Demand	600	371.4
8	Total Nitrogen (as N)	50	30.95
9	Nitrite (as N)	0.259	0.034447
10	Nitrate (as N)	0.133	48.545
11	Total Phosphorus (as P) ^{Note 1}	15	9.29
12	Orthophosphate (as P)	10	6.19
13	Sulphate (SO ₄)	33.0718	30321.21
14	Phenols (sum) ^{Note 2} (ug/l)	10	0.0062

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

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

Note 3: * Average flow data of 133m³/day recorded in E4 sheets

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

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

Discharge Point Code: SW03PASS

Number	Substance	As discharged		
		Max. daily average (µg/l)	kg/day*	kg/year*
1	Atrazine	<0.03	<0.00399	<1.45635
2	Dichloromethane	<5.0	<0.665	<242.725
3	Simazine	<0.03	<0.00399	<1.45635
4	Toluene	<0.1	<0.0133	<4.8545
5	Tributyltin	<0.05	<0.00665	<2.42725
6	Xylenes	<0.1	<0.0133	<4.8545
7	Arsenic	3.1	0.4123	150.4895
8	Chromium	<0.01	<0.00133	<0.48545
9	Copper	<0.088	<0.011704	<4.27196
10	Cyanide	7	0.931	339.815
11	Fluoride	380	50.54	18447.1
12	Lead	<0.003	<0.000399	<0.145635
13	Nickel	<0.005	<0.000665	<0.242725
14	Zinc	<0.01	<0.00133	<0.48545
15	Boron	1.46**	0.19418**	70.8757**
16	Cadmium	<0.001	<0.000133	<0.048545
17	Mercury	<0.2	<0.0266	<9.709
18	Selenium	6.673	0.887509	323.9408
19	Barium	0.0275	0.0036575	1.334988

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

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

Note 3: * Average flow data of 133m3/day recorded in E4 sheets

Note 4: ** Note Saline analytical interference in analysis of Boron

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

Discharge Point Code: SW04PASS

Source of Emission:	Cork Road Pumping Station Emergency Overflow
Location:	Passage West Townland Ardmore
Grid Ref. (12 digit, 6E, 6N):	E175621, N069656
Name of receiving waters:	Lough Mahon, Cork Harbour
River Basin District:	South Western River Basin District
Designation of receiving waters:	Sensitive, NHA, SPA
Flow rate in receiving waters:	Tidal Water _____ m ³ .sec ⁻¹ Dry Weather Flow _____ m ³ .sec ⁻¹ 95%ile flow _____

Emission Details:

(i) Volume emitted		
Normal/day	Not Available	Maximum/day
Maximum rate/hour	Not Available	Period of emission (avg)
Dry Weather Flow	Not Available	
		Not Available
		Not Available

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: SW04PASS

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)
4	Suspended Solids	Not Available
5	Ammonia (as N)	Not Available
6	Biochemical Oxygen Demand	Not Available
7	Chemical Oxygen Demand	Not Available
8	Total Nitrogen (as N)	Not Available
9	Nitrite (as N)	Not Available
10	Nitrate (as N)	Not Available
11	Total Phosphorus (as P) ^{Note 1}	Not Available
12	Orthophosphate (as P)	Not Available
13	Sulphate (SO ₄)	Not Available
14	Phenols (sum) ^{Note 2} (ug/l)	Not Available

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

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

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

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

Discharge Point Code: SW04PASS

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

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

Discharge Point Code: SW05PASS

Source of Emission:	Passage West Central Pumping Station Emergency Overflow
Location:	Passage West Townland Pembroke
Grid Ref. (12 digit, 6E, 6N):	E176987, N068831
Name of receiving waters:	River Lee West Passage, Cork Harbour
River Basin District:	South Western River Basin District
Designation of receiving waters:	Sensitive
Flow rate in receiving waters:	Tidal Waters _____ m ³ .sec ⁻¹ Dry Weather Flow _____ m ³ .sec ⁻¹ 95%ile flow

Emission Details:

(i) Volume emitted			
Normal/day	Not Available	Maximum/day	Not Available
Maximum rate/hour	Not Available	Period of emission (avg)	Not Available
Dry Weather Flow	Not Available		

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**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: SW05PASS

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

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

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

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

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

Discharge Point Code: SW05PASS

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

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

Discharge Point Code: SW06PASS

Source of Emission:	Glenbrook Pumping Station Emergency Overflow
Location:	Glenbrook Townland Lackaroe
Grid Ref. (12 digit, 6E, 6N):	E177116, N067734
Name of receiving waters:	River Lee West Passage, Cork Harbour
River Basin District:	South Western River Basin District
Designation of receiving waters:	Sensitive
Flow rate in receiving waters:	Tidal Waters _____ m ³ .sec ⁻¹ Dry Weather Flow _____ m ³ .sec ⁻¹ 95%ile flow _____

Emission Details:

(i) Volume emitted		
Normal/day	Not Available	Maximum/day
Maximum rate/hour	Not Available	Period of emission (avg)
Dry Weather Flow	Not Available	
		Not Available
		Not Available

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**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: SW06PASS

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

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

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

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

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

Discharge Point Code: SW06PASS

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

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

Discharge Point Code: SW07PASS

Source of Emission:	Monkstown Pumping Station Emergency Overflow		
Location:	Monkstown Townland Monkstown (Castlefarm)		
Grid Ref. (12 digit, 6E, 6N):	E177114, N066095		
Name of receiving waters:	River Lee West Passage, Cork Harbour		
River Basin District:	South Western River Basin District		
Designation of receiving waters:	Sensitive		
Flow rate in receiving waters:		Tidal Waters	m ³ .sec ⁻¹ Dry Weather Flow
			m ³ .sec ⁻¹ 95%ile flow

Emission Details:

(i) Volume emitted			
Normal/day	Not Available	Maximum/day	Not Available
Maximum rate/hour	Not Available	Period of emission (avg)	Not Available
Dry Weather Flow	Not Available		

**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: SW07PASS

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: SW07PASS

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

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

Discharge Point Code: SW08PASS

Source of Emission:	Coast Road Pumping Station Emergency Overflow
Location:	Monkstown Townland Monkstown (Castlefarm)
Grid Ref. (12 digit, 6E, 6N):	E176659, N065460
Name of receiving waters:	Monkstown Creek, Cork Harbour
River Basin District:	South Western River Basin District
Designation of receiving waters:	NHA, SPA
Flow rate in receiving waters:	Tidal Waters _____ m ³ .sec ⁻¹ Dry Weather Flow _____ m ³ .sec ⁻¹ 95%ile flow _____

Emission Details:

(i) Volume emitted		
Normal/day	Not Available	Maximum/day
Maximum rate/hour	Not Available	Period of emission (avg)
Dry Weather Flow	Not Available	
		Not Available
		Not Available

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**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: SW08PASS

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: SW08PASS

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

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

Discharge Point Code: SW04 Passage

Source of Emission:	Cork Road Pumping Station Storm Overflow		
Location:	Passage West Townland Ardmore		
Grid Ref. (12 digit, 6E, 6N):	E175621, N069656		
Name of receiving waters:	Lough Mahon, Cork Harbour		
River Basin District:	South Western River Basin District		
Designation of receiving waters:	Sensitive, NHA, SPA		
Flow rate in receiving waters:		_____ Tidal _____	$\text{m}^3 \cdot \text{sec}^{-1}$ Dry Weather Flow _____ $\text{m}^3 \cdot \text{sec}^{-1}$ 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

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

Discharge Point Code: SW05 Passage

Source of Emission:	Passage West Central Pumping Station Storm Overflow
Location:	Passage West Townland Pembroke
Grid Ref. (12 digit, 6E, 6N):	E176987, N068831
Name of receiving waters:	River Lee West Passage, Cork Harbour
River Basin District:	South Western River Basin District
Designation of receiving waters:	Sensitive
Flow rate in receiving waters:	_____ Tidal _____ m ³ .sec ⁻¹ Dry Weather Flow _____ 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

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

Discharge Point Code: SW06 Passage

Source of Emission:	Glenbrook Pumping Station Storm Overflow		
Location:	Glenbrook Townland Lackaroe		
Grid Ref. (12 digit, 6E, 6N):	E177116, N067734		
Name of receiving waters:	River Lee West Passage, Cork Harbour		
River Basin District:	South Western River Basin District		
Designation of receiving waters:	Sensitive		
Flow rate in receiving waters:		_____ Tidal _____	$\text{m}^3 \cdot \text{sec}^{-1}$ Dry Weather Flow _____ $\text{m}^3 \cdot \text{sec}^{-1}$ 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

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

Discharge Point Code: SW07 Passage

Source of Emission:	Monkstown Pumping Station Storm Overflow
Location:	Monkstown Townland Monkstown (Castlefarm)
Grid Ref. (12 digit, 6E, 6N):	E177114, N0666095
Name of receiving waters:	River Lee West Passage, Cork Harbour
River Basin District:	South Western River Basin District
Designation of receiving waters:	Sensitive
Flow rate in receiving waters:	Tidal _____ m ³ .sec ⁻¹ Dry Weather Flow _____ m ³ .sec ⁻¹ 95%ile flow _____

Emission Details:

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

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

Discharge Point Code: SW08 Passage

Source of Emission:	Coast Road Pumping Station Storm Overflow		
Location:	Monkstown Townland Monkstown (Castlefarm)		
Grid Ref. (12 digit, 6E, 6N):	E176659, N065460		
Name of receiving waters:	Monkstown Creek, Cork Harbour		
River Basin District:	South Western River Basin District		
Designation of receiving waters:	NHA, SPA		
Flow rate in receiving waters:		_____ Tidal _____	$\text{m}^3 \cdot \text{sec}^{-1}$ Dry Weather Flow _____ $\text{m}^3 \cdot \text{sec}^{-1}$ 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

Cork County Council

Wastewater Discharge Licence Application under S.I. 684 of 2007 Regulations

Section D: Attachment No. D2
Tabular Data on Discharge Points

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Attachment - Table D.2

LA_NAME	RWB_TYPE	RWB_NAME	DESIGNATION	EASTING	NORTHING	VERIFIED
Cork County Council	Transitional	River Lee (West Passage)	sensitive	176559	69260	N
Cork County Council	Transitional	River Lee (West Passage)	sensitive	177181	67448	Y
Cork County Council	Transitional	River Lee (West Passage)	sensitive	177235	66512	Y
Cork County Council	Transitional	Lough Mahon	pNHA, pSPA,sensitive	175621	69656	N
Cork County Council	Transitional	River Lee (West Passage)	sensitive	176987	68831	N
Cork County Council	Transitional	River Lee (West Passage)	sensitive	177116	67734	Y
Cork County Council	Transitional	River Lee (West Passage)	sensitive	177114	66095	Y
Cork County Council	Transitional	Monkstown Creek	pNHA, pSPA	176656	65460	N

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Section E: Attachment No. E1

Waste Water Discharge Frequency and Quantities – Existing & Proposed

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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)
SW01PASS	365	296,015*
SW02PASS	365	248,200*
SW03PASS	365	225,935*
SW04PASS	Not Available	Not Available
SW05PASS	Not Available	Not Available
SW06PASS	Not Available	Not Available
SW07PASS	Not Available	Not Available
SW08PASS	Not Available	Not Available

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*** Estimated FI**

