

Dublin City Council
Comhairle Cathrach Bhaile Átha Cliath



Annual Environmental Report, 2010 Ringsend Agglomeration

Table of Contents:

1. Introduction	
1.1 Description of the Activity	2
1.2 Wastewater Treatment Processes	2
1.3 Certification	3
2. Summary of Monitoring Reports	4
2.1 Summary Report on Monthly Influent Monitoring	4
2.2 Discharges from the Agglomeration	19
2.3 Ambient Monitoring Summary	27
2.4 Data Collection and Reporting Requirements under Urban Wastewater Treatment Directive	38
2.5 Pollutant Release and Transfer Register (PRTR) Report, 2010	39
3. Complaints and Incidents Reports	50
3.1 Complaints Summary	50
3.2 Reported Incidents Summary	50
4. Infrastructural Assessments and Programmes of Improvements	51
4.1 Treatment Capacity	51
4.2 Storm Water Overflow Identification and Inspection Report	51
4.3 Report on Progress Made and Proposals Being Developed to Meet the Improvement Programme Requirements	51
5. Environmental Liability and Financial Provisions	54
6. Licence Specific Reports	55
6.1 Predicted Impacts Report	55
6.2 Assessment of Predicted Impacts on Habitats	55
6.3 Development / Infrastructural Works Summary (completed in 2010 or prepared for 2011)	55
6.4 Toxicity Report	55
6.5 Environmental Liabilities Risk Assessment (ELRA)	55
6.6 Summary of Mass Loadings Received at the Wastewater Treatment Plant and Removal Efficiencies	57
6.7 Reports from Fingal County Council, South Dublin County Council and Dun Laoghaire Rathdown County Council	58

1. Introduction

1.1. Description of the Activity

Ringsend Wastewater Treatment Plant

The Ringsend Wastewater Treatment Plant was licensed by the EPA (register number D0034-01) on 27th July, 2010, to discharge treated wastewater effluent to the Lower Liffey Estuary. The Lower Liffey Estuary is designated as a “sensitive waterbody” under Urban Wastewater Treatment Regulations 2001 (S.I.254 of 2001).

The activity licensed under the Waste Water Discharge (Authorisation) Regulations, 2007, is:

Discharges from Agglomerations with a Population Equivalent of more than 10,000

The Greater Dublin agglomeration served by the Ringsend plant includes all the areas of Dublin City and South Dublin County Councils, and parts of Fingal, Dun Laoghaire Rathdown and Meath County Councils. The licence was issued by the EPA to all five contributory local authorities.

The Greater Dublin agglomeration is the largest agglomeration in Ireland, with a measured population equivalent in 2010 of 2.45 million (maximum weekly average). Influent is composed of domestic wastewater, commercial wastewater, licensed trade effluents, surface water from combined sewers, surface water infiltration, groundwater infiltration, saline infiltration and tankered wastewaters.

Condition 6.10 of the licence requires the submission of an annual environmental report (AER), covering the previous calendar year, in compliance with Schedule D of the licence. This report details the performance of the site from January to December, 2010 and has been prepared in compliance with the EPA Guidance on Preparation and Submission of the Annual Environmental Report (AER) for Waste Water Discharge Licences, dated 22/12/10.

1.2. Wastewater Treatment Activity

The Works consists of essentially two treatment activities, namely wastewater treatment and solids treatment.

WASTEWATER TREATMENT

The various treatment stages include the following:

- Flow measurement
- Fine screening (6mm)
- Grit removal (aerated retention tanks)
- Primary settlement (lamella plates)
- Fats oil and grease removal
- Biological treatment (sequencing batch reactors)
- Ultraviolet disinfection (during bathing season)
- Storm water treatment (storage / settlement / return / overflow)
- Ventilation and odour control (all covered channels and tanks)

SOLIDS TREATMENT

Mixed sludge produced in both the primary tanks and the biological reactors is currently split and taken through two separate treatment processes as follows:

1. Thickening – surplus activated sludge
Continuous mixing in holding tanks
Sludge screening – 6mm
First stage dewatering to 15% dry solids (centrifuges)
Thermal Hydrolysis Process (Cambi system)
Mesophilic anaerobic digestion
Dewatering to 26% cake (Biocake)

2. Transfer to Drying plant after screening above
Dewatering to 25% dry solids (centrifuges)
Thermal drying
Production of granules at 92% dry solids [Biofert)

In February, 2010, an extension to the solids treatment stream resulted in more redundancy in the Thermal Hydrolysis and Anaerobic Digestion processes.

1.3 Certification

I hereby certify that the Annual Environmental Report for the Dublin City Council portion of the Greater Dublin Area Agglomeration, Waste Water Discharge Licence No. D0034-01 for 2010 is accurate.

P. Cronin,
Executive Manager (Engineering),
Dublin City Council

2. Summary of Monitoring Reports

2.1 Summary Report on Monthly Influent Monitoring

2.1.1 Monthly Influent Monitoring Results for BOD / COD / SS / Total N / Total P

Influent Quality

Influent monitoring data for BOD, COD, SS, Total N and Total P for the 24-hour influent composite samples taken in 2010, is presented in monthly spreadsheets below. Note that the sample collected date represents the date of collection for transport to the laboratory. Automatic samplers are run from 09.00 hours on the date prior to the sample collection date.

Annual influent summary statistics are tabulated below for the 5 chemical parameters required:

2010 Influent Statistics	BOD (mg/l)	COD (mg/l)	TSS (mg/l)	TN (mg/l N)	TP (mg/l P)
N (Number of tests)	138	244	244	101	101
Mean Concentration	233	489	224	37.58	4.94
Median Concentration	237	503	223	44.68	5.22
Maximum Concentration	336	1,011	430	60.83	6.77
Minimum Concentration	68	145	83	13.16	1.83

Comment :

Influent strength depends on discharges of wastewaters from the extensive upstream agglomeration, within any 24 hour sampling period. The 24 hour composite influent sewage quality at Ringsend is strongly influenced by rainfall and infiltration prior to and during the sample collection period.

Note the wide ranges of concentrations of influent parameters highlighted in the table above.

The 5 influent parameters lie within the normal urban wastewater ranges, with annual mean COD to BOD ratio equal to **2.10**.

2.1.2 Influent Flow Monitoring

Influent flow is measured on a daily basis at the plant. Summary flow statistics on the influent to the plant during 2010 are tabulated below:

2010 Influent Flow Statistics	Influent Flow (m ³ /day)
Annual Influent Flow (Influent to SBR's + Stormwater Flow)	168,875,207
Annual Stormwater Flow	999,107
Annual Influent Flow to Treatment	167,876,100
N (Number of Influent Flow Measurements)	365
Mean Daily Influent Flow	462,672
Median Daily Influent Flow	416,000
Maximum Daily Flow	1,187,135
Minimum Daily Flow	326,600
<u>Maximum Daily Flow</u> <u>Minimum Daily Flow</u>	3.64

Comment :

Total influent flow data above represents influent wastewater from the agglomeration (5 lines) arriving at the Ringsend Waste Water Treatment Plant. It does not include wastewater lost in combined sewer overflows in the upstream agglomeration.

The wet weather (maximum) hydraulic flow to the Ringsend plant during 2010 was a factor of **3.64** times higher than the dry weather (minimum) flow. This quantifies the large range of influent flows experienced in the Ringsend plant and is caused mainly by surface water ingress after rainfall and by other surface water infiltration in the agglomeration.

The total Stormwater Overflow during 2010 was **999,107 cubic metres**. This occurred on 25 dates during 2010.

Monthly Influent Monitoring Data 2010

Central Laboratory, Eblana House, 68-70 Marrowbone Lane, Dublin 8

Saotharlann Lárnach, Teach Eblana, 68-70 Lána Mhuire Mhaith, Baile Átha Cliath 8

Report for Samples Taken During the Period: 01/01/2010 - 31/12/2010

Customer: Dublin City Council

Results by Customer and Test List

Sample Type: 193_SEWAGE

Sampling Point

(89910) Ringsend

New Treatment Works Influent

Sample Collected
Date Time

Sample Received
Date Time

Sample
Number

B.O.D. C.O.D. S.S. Total Nitrogen Total Phosphorus
mg/l mg/l mg/l mg/l as N mg/l as P

04/01/2010 09:00	04/01/2010 10:56	354058
05/01/2010 09:00	05/01/2010 10:53	354477
06/01/2010 09:00	06/01/2010 11:11	355005
07/01/2010 09:00	07/01/2010 11:08	355370
08/01/2010 09:00	08/01/2010 11:00	355739
11/01/2010 09:00	11/01/2010 10:55	356236
12/01/2010 09:00	12/01/2010 11:37	357105
13/01/2010 09:00	13/01/2010 10:52	357646
14/01/2010 09:00	14/01/2010 11:07	358552
15/01/2010 09:00	15/01/2010 11:09	359078
18/01/2010 09:00	18/01/2010 10:58	359460
19/01/2010 09:00	19/01/2010 11:30	360257
20/01/2010 09:00	20/01/2010 11:50	360889
21/01/2010 09:00	21/01/2010 11:02	361471
22/01/2010 09:00	22/01/2010 10:48	362080
25/01/2010 09:00	25/01/2010 11:03	362785
26/01/2010 09:00	26/01/2010 10:48	363400
27/01/2010 09:00	27/01/2010 11:00	363918
28/01/2010 09:00	28/01/2010 10:59	364485
29/01/2010 09:00	29/01/2010 11:18	365141
01/02/2010 08:20	01/02/2010 11:39	365599

	224	118		
	263	134		
125	286	144	28.90	3.55
	307	153	28.99	3.71
205	332	192		
	258	158		
	244	141		
75	185	120	20.65	2.15
68	156	91	20.06	1.83
76	191	122		
	277	128		
	281	170		
161	310	208	28.73	3.88
145	351	203	31.45	4.21
182	377	202		
	367	235		
	480	261		
206	555	280	44.53	5.39
254	499	320	44.14	6.01
173	396	238		
	361	204		

Sample Type: 193_SEWAGE

Sampling Point	Sample Collected		Sample Received		Sample Number	B.O.D. mg/l	C.O.D. mg/l	S.S. mg/l	Total Nitrogen mg/l as N	Total Phosphorus mg/l as P
	Date	Time	Date	Time						
(89910) Ringsend New Treatment Works Influent	02/02/2010	09:00	02/02/2010	11:11	366073		622	337		
	03/02/2010	09:00	03/02/2010	10:58	366614	276	590	300	41.43	5.43
	04/02/2010	09:00	04/02/2010	11:10	367155	217	582	303	34.20	4.63
	05/02/2010	09:00	05/02/2010	11:01	367794	214	430	245		
	08/02/2010	09:00	08/02/2010	10:54	368078		485	248		
	09/02/2010	09:00	09/02/2010	10:56	368567		469	238		
	10/02/2010	09:00	10/02/2010	11:00	369089	212	458	244	41.58	4.98
	11/02/2010	09:00	11/02/2010	11:13	369607	216	531	272	36.91	5.29
	12/02/2010	09:00	12/02/2010	10:57	370274	292	564	314		
	15/02/2010	09:00	15/02/2010	10:39	370901		414	221		
	16/02/2010	09:00	16/02/2010	10:55	371446		505	244		
	17/02/2010	09:00	17/02/2010	10:45	371846	239	492	284	48.83	5.75
	18/02/2010	09:00	18/02/2010	11:33	372547	220	459	213	43.51	5.39
	19/02/2010	09:00	19/02/2010	11:08	373198	244	519	252		
	22/02/2010	09:00	22/02/2010	10:48	373698		333	164		
	23/02/2010	09:00	23/02/2010	10:51	374214		489	228		
	24/02/2010	09:00	24/02/2010	11:01	375340	225	442	264	44.04	5.31
	25/02/2010	09:00	25/02/2010	10:40	376081	196	453	280	30.54	4.53
	26/02/2010	09:00	26/02/2010	11:00	376829	187	359	204		
	01/03/2010	09:00	01/03/2010	11:06	377253		350	205		

Sample Type: 193_SEWAGE

Sampling Point

Sample Collected
Date Time

Sample Received
Date Time

Sample
Number

B.O.D.
mg/l

C.O.D.
mg/l

S.S.
mg/l

Total Nitrogen
mg/l as N

Total Phosphorus
mg/l as P

(89910) Ringsend

New Treatment Works Influent

Sample Collected Date Time	Sample Received Date Time	Sample Number
02/03/2010 09:00	02/03/2010 10:57	377817
03/03/2010 09:00	03/03/2010 10:58	378343
04/03/2010 09:00	04/03/2010 11:04	378779
05/03/2010 09:00	05/03/2010 11:01	379497
08/03/2010 09:00	08/03/2010 11:07	379961
09/03/2010 09:00	09/03/2010 11:11	380496
10/03/2010 09:00	10/03/2010 10:54	381093
11/03/2010 09:00	11/03/2010 11:27	381812
15/03/2010 09:00	15/03/2010 11:59	382849
16/03/2010 09:00	16/03/2010 11:05	383542
18/03/2010 09:00	18/03/2010 11:30	384385
22/03/2010 09:00	22/03/2010 11:03	385468
23/03/2010 09:00	23/03/2010 11:00	386028
24/03/2010 09:00	24/03/2010 11:08	386806
25/03/2010 09:00	25/03/2010 10:53	387269
26/03/2010 09:00	26/03/2010 10:50	387925
29/03/2010 09:00	29/03/2010 11:09	388250
30/03/2010 09:00	30/03/2010 10:55	388598
31/03/2010 09:00	31/03/2010 10:57	389035
01/04/2010 09:00	01/04/2010 11:11	389509

	B.O.D. mg/l	C.O.D. mg/l	S.S. mg/l	Total Nitrogen mg/l as N	Total Phosphorus mg/l as P
		474	244		
242	440	218		38.30	5.25
188	374	234		38.57	4.72
211	427	200			
	438	181			
	479	212			
173	497	228		41.84	5.03
212	506	230		43.12	5.93
	287	95			
	623	336			
243	624	263		48.27	5.57
	521	246			
	567	308			
316	1011	430		40.17	6.04
292	682	317		43.63	5.20
251	559	233			
	485	194			
	437	198			
	238	144		13.94	2.27
98	211	84		39.34	2.28

Sample Type: 193_SEWAGE

Sampling Point

Sample Collected
Date Time

Sample Received
Date Time

Sample
Number

B.O.D. C.O.D. S.S. Total Nitrogen Total Phosphorus
mg/l mg/l mg/l mg/l as N mg/l as P

(89910) Ringsend

New Treatment Works Influent

02/04/2010 08:30	06/04/2010 10:57	389805
06/04/2010 08:30	06/04/2010 10:57	389807
07/04/2010 08:30	07/04/2010 10:57	390137
08/04/2010 09:00	08/04/2010 11:41	390782
09/04/2010 09:00	09/04/2010 10:49	391180
12/04/2010 09:00	12/04/2010 11:00	391700
13/04/2010 09:00	13/04/2010 11:04	392307
14/04/2010 09:00	14/04/2010 11:12	393020
15/04/2010 09:00	15/04/2010 11:04	393720
16/04/2010 09:00	16/04/2010 11:06	394381
19/04/2010 09:00	19/04/2010 10:56	394825
20/04/2010 09:00	20/04/2010 11:01	395447
21/04/2010 09:00	21/04/2010 10:47	395858
22/04/2010 09:00	22/04/2010 11:06	396441
23/04/2010 09:00	23/04/2010 10:52	396946
26/04/2010 09:00	26/04/2010 11:04	397496
27/04/2010 09:00	27/04/2010 10:55	398154
28/04/2010 09:00	28/04/2010 10:46	399043
29/04/2010 09:30	29/04/2010 11:05	399707
30/04/2010 09:00	30/04/2010 11:04	400372

	340	138		
	317	138		
171	400	186	28.56	3.83
180	445	170	32.24	4.37
221	519	256		
	501	242		
	610	254		
292	667	258	41.84	5.22
261	590	222	40.85	5.20
283	628	294		
	455	196		
	576	262		
288	598	284	44.58	5.83
240	632	376	43.46	5.96
237	733	228		
	530	285		
	556	230		
	498	213	39.74	5.55
248	734	264	42.32	5.56
271	578	239		

Sampling Point	Sample Type: 193_SEWAGE		Sample Number
	Sample Collected Date	Sample Received Date	
(89910) Ringsend	04/05/2010 09:00	04/05/2010 10:59	400902
New Treatment Works Influent	05/05/2010 09:00	05/05/2010 11:10	401625
	06/05/2010 09:00	06/05/2010 10:56	402530
	07/05/2010 09:00	07/05/2010 11:09	403580
	10/05/2010 08:30	10/05/2010 12:12	404268
	11/05/2010 09:00	11/05/2010 10:48	404878
	12/05/2010 09:00	12/05/2010 10:55	405723
	13/05/2010 09:00	13/05/2010 11:06	406474
	14/05/2010 09:00	14/05/2010 10:55	407010
	17/05/2010 09:00	17/05/2010 10:54	407490
	18/05/2010 09:00	18/05/2010 11:14	408144
	19/05/2010 09:00	19/05/2010 10:50	408737
	20/05/2010 09:00	20/05/2010 11:05	409514
	21/05/2010 09:00	21/05/2010 11:24	410487
	24/05/2010 09:00	24/05/2010 10:51	410888
	25/05/2010 09:00	25/05/2010 11:00	411368
	26/05/2010 09:00	26/05/2010 10:58	412011
	27/05/2010 09:00	27/05/2010 11:11	412572
	28/05/2010 11:00	28/05/2010 11:16	413359
	31/05/2010 09:00	31/05/2010 11:03	413747
	01/06/2010 09:00	01/06/2010 10:51	414470

B.O.D. mg/l	C.O.D. mg/l	S.S. mg/l	Total Nitrogen mg/l as N	Total Phosphorus mg/l as P
	455	216		
203	550	250	47.64	6.20
220	483	230	38.94	5.19
185	467	248		
	478	200		
	632	238		
273	606	267	34.37	6.04
264	546	240	45.40	5.87
262	570	230		
	533	227		
	576	258		
274	585	282	49.32	6.29
282	589	264	42.71	5.94
294	653	234		
	504	208		
	552	268		
260	549	234	45.46	6.31
280	629	276	46.83	6.72
288	642	262		
	499	213		
	548	286		

Sample Type: 193_SEWAGE

Sampling Point

Sample Collected Date Time Sample Received Date Time Sample Number

B.O.D. mg/l C.O.D. mg/l S.S. mg/l Total Nitrogen mg/l as N Total Phosphorus mg/l as P

**(89910) Ringsend
New Treatment Works Influent**

02/06/2010 09:00 02/06/2010 11:03 415204
 03/06/2010 09:00 03/06/2010 11:02 415822
 04/06/2010 09:00 04/06/2010 11:09 416333
 08/06/2010 09:00 08/06/2010 10:54 416690
 09/06/2010 09:00 09/06/2010 10:54 417398
 10/06/2010 11:00 10/06/2010 10:58 418114
 11/06/2010 09:00 11/06/2010 10:52 418709
 14/06/2010 09:00 14/06/2010 10:58 419075
 15/06/2010 09:00 15/06/2010 10:59 419725
 16/06/2010 09:00 16/06/2010 11:06 420469
 17/06/2010 09:00 17/06/2010 10:58 421219
 18/06/2010 09:00 18/06/2010 11:01 422126
 21/06/2010 09:00 21/06/2010 11:02 422535
 22/06/2010 09:00 22/06/2010 10:57 422951
 23/06/2010 09:00 23/06/2010 10:56 423655
 24/06/2010 09:00 24/06/2010 11:00 424147
 25/06/2010 08:30 25/06/2010 11:24 424700
 28/06/2010 09:00 28/06/2010 11:03 425198
 29/06/2010 09:00 29/06/2010 10:54 425918
 30/06/2010 09:00 30/06/2010 11:00 426726
 01/07/2010 09:00 01/07/2010 11:24 427362

	184	166	23.15	3.39
186	407	185	31.43	4.22
227	628	206		
	295	174		
159	341	172	27.98	3.66
215	480	198	35.59	4.46
236	517	228		
	328	159		
	428	214		
248	530	232	38.83	5.48
257	525	216	52.42	5.36
264	523	229		
	666	248		
	604	268		
283	610	256	43.46	5.90
314	672	280	45.04	6.13
318	634	260		
	571	230		
	618	252		
333	627	284	43.23	5.91
293	570	250	44.68	6.02

Sample Type: 193_SEWAGE

Sampling Point

Sample Collected Date Time Sample Received Date Time Sample Number

B.O.D. mg/l C.O.D. mg/l S.S. mg/l Total Nitrogen mg/l as N Total Phosphorus mg/l as P

**(89910) Ringsend
New Treatment Works Influent**

02/07/2010 09:00 02/07/2010 11:03 427918
 05/07/2010 09:00 05/07/2010 10:55 428256
 06/07/2010 09:00 06/07/2010 10:59 428865
 07/07/2010 09:00 07/07/2010 10:50 429609
 08/07/2010 09:00 08/07/2010 11:07 430183
 09/07/2010 09:00 09/07/2010 10:59 430808
 13/07/2010 09:00 13/07/2010 11:10 432028
 14/07/2010 09:00 14/07/2010 10:57 432716
 15/07/2010 09:00 15/07/2010 11:03 433084
 16/07/2010 09:00 16/07/2010 10:53 433471
 19/07/2010 09:00 19/07/2010 11:07 433931
 20/07/2010 09:00 20/07/2010 10:58 434286
 21/07/2010 09:00 21/07/2010 11:04 434750
 22/07/2010 09:00 22/07/2010 11:03 435160
 23/07/2010 09:00 23/07/2010 11:04 435637
 26/07/2010 09:00 26/07/2010 11:05 436004
 27/07/2010 09:00 15/07/2010 09:30 436576
 28/07/2010 08:30 28/07/2010 11:10 437100
 29/07/2010 09:00 29/07/2010 11:12 437636
 30/07/2010 09:00 30/07/2010 11:18 438051

298	610	260		
	531	206		
	608	256		
297	676	266	45.91	6.55
296	612	274	44.26	6.25
314	605	282		
	540	230		
224	477	237	35.01	5.18
225	434	220	34.34	3.84
250	496	249		
	368	146		
	485	222		
262	546	237	33.32	4.95
226	535	256	24.44	4.15
250	517	202		
	501	216		
	630	249		
	681	287	42.15	5.82
323	635	279	42.26	5.87
336	670	264		

Sample Type: 193_SEWAGE

Sampling Point

Sample Collected Date Time Sample Received Date Time Sample Number

B.O.D. mg/l C.O.D. mg/l S.S. mg/l Total Nitrogen mg/l as N Total Phosphorus mg/l as P

**(89910) Ringsend
New Treatment Works Influent**

03/08/2010 09:00 03/08/2010 11:02 438460
 04/08/2010 09:00 04/08/2010 10:58 438977
 05/08/2010 09:00 05/08/2010 10:57 439580
 06/08/2010 09:00 06/08/2010 10:45 440120
 09/08/2010 09:00 09/08/2010 10:59 440546
 10/08/2010 09:00 10/08/2010 10:56 441125
 11/08/2010 09:00 11/08/2010 10:59 441521
 12/08/2010 09:00 12/08/2010 11:02 442023
 13/08/2010 09:00 13/08/2010 11:10 442565
 16/08/2010 09:00 16/08/2010 11:00 442947
 17/08/2010 09:00 17/08/2010 11:15 443520
 18/08/2010 08:30 18/08/2010 11:25 444235
 19/08/2010 08:30 19/08/2010 11:00 444773
 20/08/2010 09:00 20/08/2010 11:00 445347
 23/08/2010 09:00 23/08/2010 11:08 445847
 24/08/2010 08:30 24/08/2010 11:57 446350
 25/08/2010 09:00 25/08/2010 10:54 446719
 26/08/2010 09:00 26/08/2010 10:57 447180
 27/08/2010 09:00 27/08/2010 11:28 447639
 30/08/2010 09:00 30/08/2010 10:59 447975
 31/08/2010 09:00 31/08/2010 11:04 448341
 01/09/2010 09:00 01/09/2010 11:09 448911

B.O.D. mg/l	C.O.D. mg/l	S.S. mg/l	Total Nitrogen mg/l as N	Total Phosphorus mg/l as P
	420	204		
241	528	288	36.85	5.65
216	458	179	34.33	4.19
254	568	218		
	509	218		
	560	262		
265	512	250	60.83	5.61
264	625	274	44.54	5.71
286	611	282		
	520	210		
	622	303		
228	521	214	53.08	5.34
304	620	292	40.78	5.89
233	545	221		
	528	299		
	380	218		
222	392	213	39.06	4.78
282	587	254	41.72	5.44
277	549	232		
	528	264		
	613	304		
302	636	274	47.78	6.63

Sample Type: 193_SEWAGE

Sampling Point

Sample Collected Date Time Sample Received Date Time Sample Number

B.O.D. mg/l C.O.D. mg/l S.S. mg/l Total Nitrogen mg/l as N Total Phosphorus mg/l as P

**(89910) Ringsend
New Treatment Works Influent**

02/09/2010 09:00 02/09/2010 10:58 449481
 03/09/2010 09:00 03/09/2010 11:18 450186
 06/09/2010 09:00 06/09/2010 11:24 450538
 07/09/2010 09:00 09/12/2010 09:30 450805
 08/09/2010 09:00 08/09/2010 10:54 451187
 09/09/2010 09:00 09/09/2010 10:57 451715
 10/09/2010 09:00 10/09/2010 10:52 451972
 13/09/2010 09:00 13/09/2010 11:05 452210
 14/09/2010 09:00 14/09/2010 11:00 452646
 15/09/2010 09:00 15/09/2010 11:01 453071
 16/09/2010 09:00 16/09/2010 10:55 453534
 17/09/2010 09:00 17/09/2010 10:58 453923
 20/09/2010 09:00 20/09/2010 10:58 454378
 21/09/2010 09:00 21/09/2010 11:01 454901
 22/09/2010 09:00 22/09/2010 10:55 455698
 23/09/2010 09:00 23/09/2010 11:09 456426
 24/09/2010 09:00 24/09/2010 10:53 456949
 27/09/2010 09:00 27/09/2010 11:07 457229
 28/09/2010 08:30 28/09/2010 10:58 457844
 29/09/2010 09:00 29/09/2010 10:57 458281
 30/09/2010 09:00 30/09/2010 10:59 458676
 01/10/2010 09:00 01/10/2010 11:01 459402

296	635	276	46.87	6.39
304	615	248		
	446	214		
	317	194		
162	364	190	28.75	3.58
216	441	224	36.30	4.23
245	508	235		
	427	178		
	347	262		
214	391	195	26.48	3.71
222	444	210	37.60	4.59
302	541	239		
	632	344		
	479	188		
252	511	218	41.25	5.38
153	357	204	22.64	3.18
140	294	160		
	537	214		
	574	267		
280	619	310	34.89	5.61
245	556	216	38.22	4.82
256	517	201		

Sample Type: 193_SEWAGE

Sampling Point

Sample Collected
Date Time

Sample Received
Date Time

Sample
Number

B.O.D.
mg/l

C.O.D.
mg/l

S.S.
mg/l

Total Nitrogen
mg/l as N

Total Phosphorus
mg/l as P

**(89910) Ringsend
New Treatment Works Influent**

Sample Collected Date Time	Sample Received Date Time	Sample Number
04/10/2010 09:00	04/10/2010 11:05	459690
05/10/2010 09:00	05/10/2010 10:47	460137
06/10/2010 09:00	06/10/2010 10:48	460666
07/10/2010 09:00	07/10/2010 10:56	461302
08/10/2010 09:00	08/10/2010 11:06	461694
11/10/2010 09:00	11/10/2010 10:47	462007
12/10/2010 09:00	12/10/2010 11:18	462554
13/10/2010 09:00	13/10/2010 11:13	463169
14/10/2010 09:00	14/10/2010 11:11	463866
15/10/2010 09:00	15/10/2010 11:01	464380
18/10/2010 09:00	18/10/2010 11:09	464623
19/10/2010 09:00	19/10/2010 10:55	465194
20/10/2010 09:00	20/10/2010 11:08	465732
21/10/2010 09:00	21/10/2010 10:55	466173
22/10/2010 09:00	22/10/2010 10:57	466847
26/10/2010 09:00	26/10/2010 11:12	467152
27/10/2010 09:00	27/10/2010 10:54	467641
28/10/2010 09:00	28/10/2010 10:58	468198
29/10/2010 09:00	29/10/2010 10:56	468618
01/11/2010 08:30	01/11/2010 10:53	468753

B.O.D. mg/l	C.O.D. mg/l	S.S. mg/l	Total Nitrogen mg/l as N	Total Phosphorus mg/l as P
	486	194		
	600	226		
284	572	235	41.07	5.54
253	577	259	47.66	5.62
273	610	227		
	498	166		
	636	310		
237	557	214	40.76	5.65
214	511	200	37.35	5.52
261	586	254		
	504	224		
	788	305		
	755	282	35.39	6.77
283	614	272	47.64	6.24
312	651	248		
	451	194		
222	590	187	36.80	5.11
	616	284	40.47	5.98
	548	217		
	322	162		

Sample Type: 193_SEWAGE

Sampling Point

Sample Collected
Date Time

Sample Received
Date Time

Sample
Number

B.O.D.
mg/l

C.O.D.
mg/l

S.S.
mg/l

Total Nitrogen
mg/l as N

Total Phosphorus
mg/l as P

(89910) Ringsend

New Treatment Works Influent

Sample Collected Date Time	Sample Received Date Time	Sample Number
02/11/2010 09:00	02/11/2010 11:16	469189
03/11/2010 09:00	03/11/2010 11:09	469639
04/11/2010 09:00	04/11/2010 10:51	470060
05/11/2010 09:00	05/11/2010 10:54	470459
08/11/2010 09:00	08/11/2010 10:59	470671
09/11/2010 09:00	09/11/2010 10:52	471003
10/11/2010 09:00	10/11/2010 10:54	471564
11/11/2010 09:00	11/11/2010 10:57	472120
12/11/2010 08:30	12/11/2010 11:18	472563
15/11/2010 09:00	15/11/2010 10:56	472820
16/11/2010 09:00	16/11/2010 10:56	473431
17/11/2010 09:00	17/11/2010 10:50	473879
18/11/2010 09:00	18/11/2010 10:52	474267
19/11/2010 09:00	19/11/2010 10:54	474747
22/11/2010 09:00	23/11/2010 11:21	475585
23/11/2010 09:00	23/11/2010 11:21	475587
24/11/2010 09:00	24/11/2010 11:04	475903
25/11/2010 09:00	25/11/2010 10:43	476299
26/11/2010 09:00	26/11/2010 10:53	476819
29/11/2010 09:00	29/11/2010 11:01	476996
30/11/2010 09:00	30/11/2010 10:58	477393
01/12/2010 09:00	01/12/2010 11:15	477785

	B.O.D. mg/l	C.O.D. mg/l	S.S. mg/l	Total Nitrogen mg/l as N	Total Phosphorus mg/l as P
		523	212		
191	447	211	26.79	3.97	
104	245	107	13.16	2.44	
191	390	184			
	145	83			
	363	170			
151	278	138	25.94	2.73	
156	363	174	31.12	3.46	
178	359	158			
	466	205			
	512	212			
306	660	283	32.33	6.04	
168	346	164	25.52	3.29	
190	357	150			
	391	176			
140	304	147	30.98	2.82	
169	448	180	39.33	3.69	
209	451	165			
	411	193			
	284	136			
184	314	203	25.97	4.70	

Results by Customer and Test List

Sample Type: 193_SEWAGE

Sampling Point

Sample Collected Date Time Sample Received Date Time Sample Number

B.O.D. **C.O.D.** **S.S.** **Total Nitrogen** **Total Phosphorus**
mg/l **mg/l** **mg/l** **mg/l as N** **mg/l as P**

(89910) Ringsend
New Treatment Works Influent

02/12/2010 09:00 02/12/2010 11:03 477993
 03/12/2010 09:00 03/12/2010 10:51 478195
 06/12/2010 09:00 06/12/2010 10:52 478405
 07/12/2010 09:00 07/12/2010 11:35 478885
 08/12/2010 09:00 08/12/2010 10:55 479322
 09/12/2010 09:00 09/12/2010 11:04 479679
 10/12/2010 09:00 10/12/2010 11:07 480330
 13/12/2010 09:00 13/12/2010 12:25 480653
 14/12/2010 09:00 14/12/2010 10:53 481189
 15/12/2010 09:00 15/12/2010 11:45 481683
 16/12/2010 09:00 16/12/2010 10:57 482284
 17/12/2010 09:00 17/12/2010 10:48 482764
 20/12/2010 09:00 20/12/2010 10:53 483128
 21/12/2010 09:00 21/12/2010 10:57 483505
 22/12/2010 09:00 22/12/2010 10:57 483740
 23/12/2010 09:00 23/12/2010 10:48 484014

198	394	172	32.60	3.94
203	403	182		
	306	118		
	425	192		
215	372	180	27.82	3.46
226	445	170	29.48	4.22
187	370	156		
	314	130		
	385	148		
244	414	160	38.35	3.94
215	488	178	39.49	4.55
228	451	204		
	467	188		
	549	204		
	484	204	36.65	5.10
	484	203	33.09	5.04

2.2 Discharges from the Agglomeration

2.2.1 Primary Discharge Monitoring Results

Primary Discharge Quality

Licence register no. D0034-01 was issued on 27/07/2010. Effluent monitoring data for the 24-hour effluent composite samples taken from 01/08/10 to 31/12/10 is presented in monthly spreadsheets below. Note that the sample collected date represents the date of collection for transport to the laboratory. Automatic samplers are run from 09.00 hours on the date prior to the sample collection date.

Effluent non-compliances during the 5 month period from 01/08/2010 to 31/12/2010 are summarised below ;

Effluent Non-Compliances	pH	BOD (mg/l)	COD (mg/l)	TSS (mg/l)	TN (mg/l N)	TP (mg/l P)	Faecal Coliforms (MPN/100ml)
Emission Limit Value (ELV)	6 - 9	25	125	35	10	1	100,000
N (Number of tests)	102	57	102	102	42	42	17
Number of Non-Compliances	0	7	3	24	42	42	0
Percentage Compliance * (* during 5 months)	100%	87.72%	97.06%	76.47%	0%	0%	100%

2.2.2 Summary of Results

Annual numbers of samples are required for true ELV compliance assessments. The following partial compliance assessment has been estimated for the 5 month licensed period in 2010 using Schedule B.3 of the licence – Interpretation of Licence Monitoring Results.

The Ringsend primary discharge complied with the licence emission limit values for the parameters pH, COD and Faecal Coliforms during the 5 month licensed period in 2010.

The BOD did not comply with the emission limit value as 7 samples failed during this period. The maximum number of samples allowed to fail the sample count group (54-67) on an annual basis is 6.

The SS did not comply with the emission limit value as 24 samples failed during this period. The maximum number of samples allowed to fail the sample count group (96--110) on an annual basis is 9.

The Total Nitrogen did not comply with the emission limit value as all 42 samples failed during this period. The maximum number of samples allowed to fail the sample count group (41--53) on an annual basis is 5.

The Total Phosphorus did not comply with the emission limit value as all 42 samples failed during this period. The maximum number of samples allowed to fail the sample count group (41--53) on an annual basis is 5.

Comment

Slight failure of the primary discharge to meet the BOD ELV is due to lack of capacity in the secondary treatment tanks. This is being addressed by the extension of the treatment works proposal.

Failure of the primary discharge to meet the Suspended Solids ELV has been mainly due to lack of capacity in the primary and secondary treatment tanks.

The primary discharge is chronically non-compliant with the ELV's set for Total Nitrogen and Total Phosphorus. This has been notified to the EPA. and is due to:

- poor performance in the nitrifying plant
- lack of a denitrifying plant
- lack of a phosphorus removal plant

This is being addressed by the proposal for a piped long sea outfall location (outside the designated sensitive waters in the Liffey Estuary).

For details on infrastructural assessments and programmes of improvements see section 4 of this report.

Section 2.2 Discharges from Agglomeration

Customer: Dublin City Council		Sample Type: 193_SEWAGE																			
Results by Customer and Test List																					
Sampling Point	Sample Taken		Sample Received		Sample Number	Ammonia mg/l as N	B.O.D. mg/l	C.O.D. mg/l	Colour *Hazen	Conductivity µS/cm	Extractable F.O.G. mg/l	Nitrate mg/l as N	Nitrite mg/l as N	pH	Phosphorus (React) mg/l as P	Suspended Solids mg/l	TON mg/l as N	Total Kjeldahl N mg/l as N	Total Nitrogen mg/l as N	Total Phosphorus mg/l as P	DIN mg/l N
	Date	Time	Date	Time																	
EPA D0034-01 Emission Limit Value (ELV)							25	125						6 to 9		35			10	1	
(89972) Ringsend : New Treatment Works SBR Effluent SW1Dublin	03/08/2010	09:00	03/08/2010	11:02	438461	1.23		51		1895		8.65	0.554	7.7	3.61	14	9.20				10.43
	04/08/2010	09:00	04/08/2010	10:58	438978	2.13	14	68		1957	8	8.43	0.599	7.8	3.36	34	9.03	4.76	13.79	4.38	11.16
	05/08/2010	09:00	05/08/2010	10:57	439581	4.51	7	50		1670	0	7.74	0.687	7.9	3.30	14	8.42	5.31	13.73	3.67	12.93
	06/08/2010	09:00	06/08/2010	10:45	440121	6.80	7	67		1734		6.32	0.743	7.8	4.01	<10	7.06				13.86
	09/08/2010	09:00	09/08/2010	10:59	440547	1.25		48		2090		8.34	0.487	7.7	3.52	10	8.83				10.08
	10/08/2010	09:00	10/08/2010	10:56	441126	3.15		60		2480		7.40	0.616	7.7	3.93	21	8.02				11.17
	11/08/2010	09:00	11/08/2010	10:59	441522	4.09	7	58		3230	4	7.43	0.694	7.6	3.82	17	8.13	4.96	13.09	4.16	12.22
	12/08/2010	09:00	12/08/2010	11:02	442024	4.37	8	60		3610	4	7.57	0.833	7.6	3.65	24	8.40	5.37	13.77	3.97	12.77
	13/08/2010	09:00	13/08/2010	11:10	442566	4.12	29	61		3760		7.94	0.707	7.6	3.31	31	8.65				12.77
	16/08/2010	09:00	16/08/2010	11:00	442948	1.10		46		2850		7.51	0.672	7.7	2.88	12	8.18				9.28
	17/08/2010	09:00	17/08/2010	11:15	443521	4.11		64		2420		6.49	0.693	7.6	3.33	31	7.18				11.29
	18/08/2010	08:45	18/08/2010	11:25	444236	3.47	7	54		2060	4	6.56	0.501	7.9	2.55	11	7.06	5.90	12.96	3.34	10.53
	19/08/2010	09:00	19/08/2010	11:00	444774	7.14	8	56		1994	8	6.60	0.704	7.7	3.16	22	7.30	8.39	15.69	3.58	14.44
	20/08/2010	09:00	20/08/2010	11:00	445348	7.67	11	64		1836		7.06	0.800	7.6	3.05	25	7.86				15.53
	23/08/2010	09:00	23/08/2010	11:08	445848	2.96		54		2070		7.63	0.836	7.5	3.36	16	8.47				11.43
	24/08/2010	08:30	24/08/2010	11:57	446351	4.52		83		1593		5.11	0.658	7.5	2.88	16	5.77				10.29
	25/08/2010	09:00	25/08/2010	10:54	446720	6.31	9	56		2160	4	6.08	0.664	7.8	3.01	16	6.74	8.97	15.71	3.41	13.05
26/08/2010	09:00	26/08/2010	10:57	447181	7.49	9	60		2310	0	6.53	0.814	7.6	2.89	21	7.34	9.83	17.17	3.32	14.83	
27/08/2010	09:00	27/08/2010	11:28	447640	6.54	9	62		2290		7.63	0.758	7.6	2.40	16	8.39				14.93	
30/08/2010	09:00	30/08/2010	10:59	447976	3.68		63		2370		8.14	1.181	7.6	4.01	33	9.32				13	
31/08/2010	09:00	31/08/2010	11:04	448342	4.78		59		2100		8.86	0.768	7.6	3.95	18	9.63				14.41	
01/09/2010	09:00	01/09/2010	11:09	448912	6.45	10	58		2080	192	7.11	0.792	7.8	3.75	32	7.90	8.77	16.67	4.60	14.35	

Sampling Point	Sample Taken		Sample Received		Sample Number	Ammonia mg/l as N	B.O.D. mg/l	C.O.D. mg/l	Colour °Hazen	Conductivity µS/cm	Extractable F.O.G. mg/l	Nitrate mg/l as N	Nitrite mg/l as N	pH	Phosphorus (React) mg/l as P	Suspended Solids mg/l	TON mg/l as N	Total Kjeldahl Nitrogen mg/l as N	Total Nitrogen mg/l as N	Total Phosphorus mg/l as P	DIN mg/l N
	Date	Time	Date	Time																	
EPA D0034-01 Emission Limit Value (ELV)							25	125						6 to 9		35			10		1
(89972) Ringsend : New Treatment Works SBR Effluent SW1Dublin	02/09/2010	09:00	02/09/2010	10:58	449482	7.08	11	66	1949	4	7.57	0.852	7.7	3.40	20	8.42	11.14	19.56	4.41	15.5	
	03/09/2010	09:00	03/09/2010	11:18	450187	8.08	11	70	1688		7.32	0.843	7.6	3.36	19	8.17				16.25	
	06/09/2010	09:15	06/09/2010	11:25	450539	6.98		66	1284		7.97	1.973	7.6	2.88	26	9.94				16.92	
	07/09/2010	09:15	07/09/2010	11:29	450806	5.75		75	1052		4.81	0.744	7.4	1.96	48	5.55				11.3	
	08/09/2010	09:00	08/09/2010	10:54	451188	3.55	11	53	1058	0	5.48	0.768	7.5	1.38	26	6.24	6.59	12.83	1.84	9.79	
	09/09/2010	09:00	09/09/2010	10:57	451716	3.27	7	50	1610	4	6.11	0.628	7.6	1.47	18	6.73	4.81	11.54	2.02	10	
	10/09/2010	09:00	10/09/2010	10:52	451973	5.60	12	63	2260		5.71	0.709	7.5	2.35	34	6.42				12.02	
	13/09/2010	09:00	13/09/2010	11:05	452211	7.03		66	2120		6.18	1.268	7.6	3.00	14	7.45				14.48	
	14/09/2010	09:00	14/09/2010	11:00	452647	11.88		84	1891		5.17	0.812	7.6	3.64	38	5.98				17.86	
	15/09/2010	09:00	15/09/2010	11:01	453072	6.31	21	72	1351	68	4.32	0.625	7.6	2.01	32	4.95	11.37	16.32	2.78	13.26	
	16/09/2010	09:00	16/09/2010	10:55	453535	9.75	12	63	1345	0	5.87	0.906	7.8	2.04	17	6.77	13.21	19.98	2.48	16.52	
	17/09/2010	09:00	17/09/2010	10:58	453924	10.95	11	64	1345		5.28	0.885	7.7	2.15	22	6.17				17.12	
	20/09/2010	09:00	20/09/2010	10:58	454379	8.06		65	1116		5.65	1.219	7.7	2.18	22	6.87				14.93	
	21/09/2010	09:00	21/09/2010	11:01	454902	6.42		54	1093		6.83	0.966	7.7	2.61	16	7.79				14.21	
	22/09/2010	09:00	22/09/2010	10:55	455699	8.57	10	63	1261	4	6.22	0.899	7.8	3.25	20	7.12	10.66	17.78	3.58	15.69	
	23/09/2010	09:00	23/09/2010	11:09	456427	8.25	16	74	1076	0	4.23	0.753	7.5	2.12	26	4.98	10.78	15.76	2.95	13.23	
	24/09/2010	09:00	24/09/2010	10:53	456950	5.08	12	59	929		4.64	0.713	7.5	1.47	24	5.36				10.44	
27/09/2010	09:00	27/09/2010	11:07	457230	7.66		56	1525		4.89	0.842	7.7	2.33	18	5.73				13.39		
28/09/2010	09:00	28/09/2010	10:59	457845	10.49		69	1671		5.30	0.806	7.7	2.97	18	6.11				16.6		
29/09/2010	09:00	29/09/2010	10:57	458282	10.93	16	78	1688	4	4.64	0.788	7.7	2.54	28	5.43		19.43	3.38	16.36		
30/09/2010	09:00	30/09/2010	10:59	458677	8.57	13	77	1421	0	4.88	0.626	7.7	1.88	24	5.51		13.11	2.64	14.08		
01/10/2010	09:00	01/10/2010	11:01	459403	10.76	13	69	1540		4.52	0.677	7.7	2.63	29	5.19				15.95		

Sampling Point	Sample Taken		Sample Received		Sample Number	Ammonia mg/l as N	B.O.D. mg/l	C.O.D. mg/l	Colour °Hazen	Conductivity µS/cm	Extractable F.O.G. mg/l	Nitrate mg/l as N	Nitrite mg/l as N	pH	Phosphorus (React) mg/l as P	Suspended Solids mg/l	TON mg/l as N	Total Kjeldahl Nit mg/l as N	Total Nitrogen mg/l as N	Total Phosphorus mg/l as P	DIN mg/l N
	Date	Time	Date	Time																	
EPA D0034-01 Emission Limit Value (ELV)							25	125						6 to 9		35			10		1
(89972) Ringsend : New Treatment Works SBR Effluent SW1Dublin	04/10/2010	09:00	04/10/2010	11:05	459691			62		1645				7.7		17					
	05/10/2010	09:00	05/10/2010	10:47	460138			78		1781				7.6		34					
	06/10/2010	09:00	06/10/2010	10:48	460667			14	75	2270	4			7.7		32			47.94	4.47	
	07/10/2010	09:00	07/10/2010	10:56	461303			17	89	2780	8			7.8		46			21.13	4.39	
	08/10/2010	09:00	08/10/2010	11:06	461695			18	91	3120				7.6		34					
	11/10/2010	09:00	11/10/2010	10:47	462008	7.32		75		2260		7.16	1.086	7.6	2.71	26	8.24				15.56
	12/10/2010	09:00	12/10/2010	11:18	462555	9.41		74		2030		6.13	0.754	7.6	3.33	26	6.88				16.29
	13/10/2010	09:00	13/10/2010	11:13	463170	13.16	15	92		1889	8	4.03	0.447	7.6	2.77	29	4.48		19.05	4.05	17.64
	14/10/2010	09:00	14/10/2010	11:11	463867	14.49	12	79	54	1764	0	4.01	0.507	7.7	2.27	24	4.52		19.65	2.83	19.01
	15/10/2010	09:00	15/10/2010	11:01	464381	16.07	12	74	52	1611		4.69	0.547	7.8	2.32	28	5.24				21.31
	18/10/2010	09:00	18/10/2010	11:09	464624	13.29		68	53	1291		4.83	1.158	7.7	3.24	26	5.99				19.28
	19/10/2010	09:00	19/10/2010	10:55	465195	14.32		66	54	1290		4.56	0.551	7.7	3.85	20	5.11				19.43
	20/10/2010	09:00	20/10/2010	11:08	465733	16.53		66	55	1416	0	4.23	0.540	7.7	3.28	24	4.76		22.03	4.13	21.29
	21/10/2010	09:00	21/10/2010	10:55	466174	16.08	13	87	56	1694	4	4.54	0.561	7.7	3.35	26	5.10		25.68	4.27	21.18
	22/10/2010	09:00	22/10/2010	10:57	466848	18.91	14	71	59	2010		4.77	0.593	7.7	3.76	34	5.36				24.27
	26/10/2010	09:00	26/10/2010	11:12	467153	6.47		61	45	2430		5.96	0.766	7.5	3.38	20	6.73				13.2
	27/10/2010	09:00	27/10/2010	10:54	467642	6.76	12	69	45	2350	12	6.54	0.682	7.6	3.40	24	7.22		14.91	3.96	13.98
	28/10/2010	09:00	28/10/2010	10:58	468199	9.28		81	49	2430	8	5.63	0.623	7.7	4.05	46	6.26		17.08	4.87	15.54
	29/10/2010	09:00	29/10/2010	10:56	468619	12.40		85	51	2300		5.06	0.813	7.7	5.87	34	5.87				18.27
	01/11/2010	09:00	01/11/2010	10:53	468754	7.54		82	39	1017		4.05	1.117	7.6	1.62	42	5.17				12.71

Sampling Point	Sample Taken		Sample Received		Sample Number	Ammonia mg/l as N	B.O.D. mg/l	C.O.D. mg/l	Colour Hazen	Conductivity µS/cm	Extractable F.O.G. mg/l	Nitrate mg/l as N	Nitrite mg/l as N	pH	Phosphorus (React) mg/l as P	Suspended Solids mg/l	TON mg/l as N	Total Kjeldahl Nit mg/l as N	Total Nitrogen mg/l as N	Total Phosphorus mg/l as P	DIN mg/l N
	Date	Time	Date	Time																	
EPA D0034-01 Emission Limit Value (ELV)							25	125						6 to 9		35			10	1	
(89972) Ringsend : New Treatment Works SBR Effluent SW1Dublin	02/11/2010	09:30	02/11/2010	11:16	469190	7.68	58	41	1141		4.77	0.612	7.7	2.62	26	5.38					13.06
	03/11/2010	09:00	03/11/2010	11:09	469640	8.82	31	107	41	1220	0	3.54	0.554	7.5	2.10	62	4.10	12.94	17.04	3.92	12.92
	04/11/2010	09:00	04/11/2010	10:51	470061	11.87	24	90	42	1232	4	2.13	0.669	7.3	2.30	54	2.80	14.98	17.78	3.51	14.67
	05/11/2010	09:00	05/11/2010	10:54	470460	10.51	14	77	38	1235		3.40	0.581	7.6	2.14	38	3.98				14.49
	08/11/2010	09:00	08/11/2010	10:59	470672	7.63		83	29	1135		2.03	0.897	7.2	1.25	42	2.93				10.56
	09/11/2010	09:00	09/11/2010	10:52	471004	8.74		95	35	1084		3.94	0.488	7.5	2.95	64	4.43				13.17
	10/11/2010	09:00	10/11/2010	10:54	471565	7.86	22	83	30	898	4	3.21	0.487	7.5	1.31	45	3.69	9.87	13.56	2.28	11.55
	11/11/2010	09:00	11/11/2010	10:57	472121	7.81	13	57	32	1033	4	3.75	0.419	7.8	1.54	26	4.17	11.86	16.03	2.16	11.98
	12/11/2010	09:00	12/11/2010	11:18	472564	9.95	25	83	37	1186		3.84	0.426	7.7	1.58	53	4.26				14.21
	15/11/2010	09:00	15/11/2010	10:56	472821	11.72		58	40	1130		4.64	0.644	7.8	2.29	21	5.17				16.89
	16/11/2010	09:00	16/11/2010	10:56	473432	13.60		62	45	1131		4.85	0.451	7.7	2.65	25	5.30				18.9
	17/11/2010	09:00	17/11/2010	10:50	473880	16.60	57	205	50	1126	4	3.11	0.430	7.7	2.69	117	3.54	19.85	23.39	5.48	20.14
	18/11/2010	09:00	18/11/2010	10:52	474268	10.04	18	92	32	849	4	3.79	0.531	7.5	1.24	40	4.32	11.50	15.82	2.33	14.36
	19/11/2010	09:00	19/11/2010	10:54	474748	9.98	14	65	35	1036		3.87	0.460	7.6	1.44	30	4.33				14.31
	22/11/2010	09:00	23/11/2010	11:21	475586	10.67		61	37	1239		4.34	0.433	7.8	1.16	24	4.77				15.44
	23/11/2010	09:00	23/11/2010	11:21	475588	10.96		91	36	966		3.17	0.428	7.6	2.36	52	3.60				14.56
	24/11/2010	09:00	24/11/2010	11:04	475904	10.25	16	60	31	1074		3.96	0.405	7.9	1.28	25	4.37	14.30	18.67	1.94	14.62
25/11/2010	09:00	25/11/2010	10:43	476300	10.12	14	57	30	1064	4	4.25	0.387	7.6	1.28	24	4.64	12.7	17.34	1.82	14.76	
26/11/2010	09:00	26/11/2010	10:54	476820	15.38	14	71	46	1388		4.46	0.376	7.7	2.06	22	4.84				20.22	
29/11/2010	09:00	29/11/2010	11:01	476997	12.09		69	40	1237		4.70	0.399	7.7	1.90	15	5.10				17.19	
30/11/2010	09:00	30/11/2010	10:58	477394	15.48		75	47	1328		4.75	0.352	7.7	2.23	35	5.10				20.58	
01/12/2010	09:00	01/12/2010	11:15	477786	13.58	49	138	44	1349	4	3.68	0.350	7.7	1.84	106	4.03	15.62	19.65	2.29	17.61	
(89973) Ringsend : New Treatment Works SBR Effluent	09/11/2010	09:00	10/11/2010	11:20	471600	4.70	28	108	28	865	6	2.79	0.663	7.6	1.09	62	3.45	9.31	12.76	2.37	8.15

Sampling Point	Sample Taken		Sample Received		Sample Number	Ammonia mg/l as N	B.O.D. mg/l	C.O.D. mg/l	Colour Hazen	Conductivity µS/cm	Extractable F.O.G. mg/l	Nitrate mg/l as N	Nitrite mg/l as N	pH	Phosphorus (React) mg/l as P	Suspended Solids mg/l	TON mg/l as N	Total Kjeldahl Nit mg/l as N	Total Nitrogen mg/l as N	Total Phosphorus mg/l as P	DIN mg/l N
	Date	Time	Date	Time																	
EPA D0034-01 Emission Limit Value (ELV)							25	125						6 to 9		35			10	1	
(89972) Ringsend : New Treatment Works SBR Effluent SW1Dublin	02/12/2010	09:30	02/12/2010	11:03	477994	13.52	26	82	43	1311	4	3.02	0.481	7.7	1.89	48	3.50	14.92	18.42	2.86	17.02
	03/12/2010	09:00	03/12/2010	10:52	478196	13.27	23	84	39	1363		2.78	0.277	7.7	1.82	46	3.06				16.33
	06/12/2010	09:00	06/12/2010	10:52	478406	10.44		88	33	1497		2.82	0.238	7.6	1.34	52	3.06				13.5
	07/12/2010	09:00	07/12/2010	11:35	478886	13.58		85	38	1688		3.08	0.270	7.7	1.93	41	3.35				16.93
	08/12/2010	09:00	08/12/2010	10:55	479323	12.57	44	141	39	1612	4	2.43	0.237	7.5	1.30	83	2.66	19.83	22.49	3.31	15.23
	09/12/2010	09:00	09/12/2010	11:04	479680	13.36	21	84	40	1639	0	2.38	0.458	7.7	1.65	40	2.84	19.28	22.12	2.51	16.2
	10/12/2010	09:00	10/12/2010	11:08	480331	13.60	41	122	37	1570		2.73	0.280	7.6	1.56	72	3.00				16.6
	13/12/2010	09:00	13/12/2010	12:25	480654	9.63		63	29	1062		3.33	0.399	7.7	1.34	34	3.73				13.36
	14/12/2010	09:00	14/12/2010	10:53	481190	15.89		77	35	1116		3.39	0.330	7.7	1.98	30	3.72				19.61
	15/12/2010	09:00	15/12/2010	11:45	481684	19.92	21	87	43	1180	0	3.21	0.228	7.7	2.35	34	3.44	24.01	27.45	3.02	23.36
	16/12/2010	09:00	16/12/2010	10:57	482285	19.30	22	89	42	1209	0	3.26	0.207	7.7	2.27	33	3.47	21.36	24.83	3.08	22.77
	17/12/2010	09:00	17/12/2010	10:48	482765	21.33	24	92	46	1243		3.16	0.200	7.7	2.41	38	3.36				24.69
	20/12/2010	09:00	20/12/2010	10:53	483129	20.12		65	43	1396		3.07	0.247	7.7	2.22	23	3.32				23.44
	21/12/2010	09:00	21/12/2010	10:57	483506	21.60		74	51	1577		3.14	0.175	7.7	3.16	31	3.31				24.91
	22/12/2010	09:00	22/12/2010	10:57	483741	28.03		109	54	1826	16	2.84	0.159	7.9	2.75	28	3.00	30.02	33.02	3.58	31.03
	23/12/2010	09:00	23/12/2010	10:48	484015	24.23		82	50	1727	0	3.14	0.184	7.8	2.34	25	3.32	25.11	28.43	3.04	27.55

Sample Type: 193A_SE_BT

Sampling Point

Sample Taken Date	Time	Sample Received Date	Time	Sample Number	E. coli MPN/100ml	Enterococci CFU/100ml	Total Coliforms MPN/100ml
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EPA D0034-01 Emission Limit Value (ELV)

100,000

**(89972) Ringsend : New Treatment Works SBR Effluent
SW1Dublin**

03/08/2010	09:00	03/08/2010	11:02	438463
04/08/2010	09:00	04/08/2010	10:58	438980
05/08/2010	09:00	05/08/2010	10:57	439583
09/08/2010	09:00	09/08/2010	10:59	440549
10/08/2010	09:00	10/08/2010	10:56	441128
11/08/2010	09:00	11/08/2010	10:59	441524
12/08/2010	09:00	12/08/2010	11:02	442026
16/08/2010	09:00	16/08/2010	11:00	442950
17/08/2010	09:00	17/08/2010	11:15	443523
18/08/2010	09:30	18/08/2010	11:25	444238
19/08/2010	09:30	19/08/2010	11:00	444776
23/08/2010	09:00	23/08/2010	11:08	445850
24/08/2010	09:00	24/08/2010	11:57	446353
25/08/2010	09:00	25/08/2010	10:54	446722
26/08/2010	09:00	26/08/2010	10:57	447183
30/08/2010	09:00	30/08/2010	10:59	447978
31/08/2010	09:00	31/08/2010	11:04	448344

1560	560	30760
34480	6100	241960
15530		198630
5560	670	17200
2850	640	54750
3090	590	36540
5810		68670
9090	2700	155310
6440	1282	61310
20980	3000	198630
8600		72700
32300	20000	488400
20140	4300	198630
64880	7000	241960
64880		241960
4800	5700	57940
41060	5000	>241960

2.3 Ambient Monitoring Summary

2.3.1 Ambient Monitoring - Marine Monitoring

Monitoring of the receiving waters at 9 specified locations (ASW2 to ASW10) in the River Liffey and River Tolka was designated in Schedule B4 of the licence.

A meeting was held with the EPA to clarify which monitoring points were required in the Estuary (Liffey and Tolka) / Dublin Bay in November, 2010. It was agreed with the Agency that sampling of the locations previously sampled in the EPA Liffey Estuary and Dublin Bay study, 2009, would be used.

In 2010, the following receiving water locations were surveyed from 01/08/10:

**ASW 6 : Dublin (Downstream Islandbridge Weir)
Dublin (Upstream Islandbridge Weir)**

**ASW 7 : Dublin (Heuston Station U/S Camac Outfall)
Dublin (Liffey Frank Sherwin Bridge)**

ASW 8 : Dublin (Winetavern Street Bridge)

ASW 9 : Dublin (Downstream Toll Bridge)

ASW 10 : Dublin (Downstream Annesely Bridge)

See attached spreadsheets.

Monitoring of **ASW 2, 3, 4 and 5** and the Estuary and Bay sampling points, agreed with the Agency, will commence in early 2011.

2.3.2 Ambient Monitoring - Shore Sampling

Monitoring of 8 specified shoreline locations (ASW11 to ASW18) was designated in Schedule B4 of the licence as follows :

ASW 11 : Dublin (Dollymount North) – not sampled in 2010. Sampling to commence in 2011

ASW 12 : Dublin (Dollymount Bathing Zone)

ASW 13 : Dublin (Dollymount South) – not sampled in 2010. Sampling to commence in 2011

ASW 14 : Dublin (Bull Wall Wood Causway)

ASW 15 : Dublin (Poolbeg Outfall - Main)

ASW 16 : Dublin (Half Moon Club – Southside)

ASW 17 : Dublin (Sandymount Strand)

ASW 18 : Dublin (Merrion Strand)

See attached spreadsheets for the 2010 bathing season.

Additional sampling locations required at ASW 11 and ASW 13 will be sampled during the 2011 bathing season.

2.3.3 Ambient Monitoring – Biological Monitoring

Monitoring of :

- Intertidal Opportunistic Macroalgal Growth (Annual)
- Benthic Invertebrates (Triennial)
- Intertidal Rocky Shore Seaweed Diversity (Triennial)

will be carried out by the EPA.

2.3.4 Ambient Monitoring – Chemical Monitoring

Monitoring of :

- Dangerous Substances (Triennial)
- Specific Pollutants (Triennial)

is planned to be carried out in 2011 or 2012.

2.4 Data Collection and Reporting Requirements under the Urban Waste Water Treatment Directive

The electronic submission of the 2010 Report was made to the EPA on 28/02/2010.

Sample Type: 110_RIVER

Sampling Point	Sample Taken Date Time	Sample Received Date Time	Sample Number	Ammonia mg/l as N	B.O.D. mg/l	C.O.D. mg/l	Conductivity (20 °C) µS/cm	D.O. % Sat.	D.O. mg/l	E. coli MPN/100ml	Nitrate mg/l as N	Nitrite mg/l as N	pH	Phosphorus (React) mg/l as P	Suspended Solids mg/l	Temperature °C	TON mg/l as N	Total Coliforms MPN/100ml	D.I.N. mg/l as N
(40063) Liffey City D/S Islandbdg Weir	19/08/2010 09:50	19/08/2010 12:32	444847	<0.03	<2	<10	472	96	9.2	529	3.03	0.053	8.2	0.05	10	16.6	3.08	12033	3.1

ASW 6

Results by Customer and Test List Sample Type: 110B_RIVER

Sampling Point	Sample Taken Date Time	Sample Received Date Time	Sample Number	Ammonia µg/l as N	Ammonia mg/l as N	B.O.D. mg/l	B.O.D. Saline mg/l	C.O.D. mg/l	Conductivity (20 °C) µS/cm	D.O. % Sat.	D.O. mg/l	E. coli MPN/100ml	Enterococci CFU/100ml	Enterococci (Confirmed) CFU/100ml	Nitrate mg/l as N	Nitrite mg/l as N	pH	Phosphorus (React) µg/l SRP as P	Phosphorus (React) mg/l as P	Salinity PSU	Suspended Solids mg/l	Temperature °C	TON µg/l as N	TON mg/l as N	Total Coliforms MPN/100ml	Total Nitrogen µg/l	Total Nitrogen mg/l as N	Total Phosphorus mg/l as P	DIN mg/l as N
(40062) Liffey U/S Islandbridge Weir	18/08/2010 09:15	18/08/2010 11:55	444275		0.03	<2		<10	452	100	9.6	200	29		2.03	0.028	8.3		0.06	0.0	<10	16.8		2.06	850		2.43	0.09	2.09
ASW 6	25/08/2010 09:10	25/08/2010 12:22	446827		0.11	<2		<10	449	120	12.0	<100	131		2.76	0.079	8.2		0.07	0.0	<10	15.5		2.84		3.23	0.08	2.95	
	01/09/2010 10:05	01/09/2010 12:25	449114		<0.03	<2		<10	444	118	11.9	<100	74		2.68	0.010	8.4		0.04	0.0	<10	15.5		2.69		3.21	0.06	2.71	
	08/09/2010 09:40	08/09/2010 12:40	451312		0.19	3		22	407	96	9.6	17329		2000	2.36	0.052	8.1		0.10	0	11	14.7		2.41		2.65	0.15	2.6	
	15/09/2010 09:10	15/09/2010 11:35	453084		0.08	<2		19	413	94	9.5	1860		700	1.58	0.036	8.2		0.06	0	<10	14.6		1.62		2.01	0.10	1.7	
	22/09/2010 09:40	22/09/2010 11:58	455819		0.10	<2		17	350	98	9.8	2098		570	1.40	0.033	8.2		0.04	0	<10	15.1		1.44		1.87	0.06	1.54	
	29/09/2010 09:10	29/09/2010 11:30	458321		0.29	<2		15	585	96	10.3	2282		510	2.37	0.097	8.3		0.04	0	<10	12.3		2.46		3.05	0.06	2.75	
	06/10/2010 09:40	06/10/2010 12:05	460764		0.09	<2		10	520	93	9.8	650		210	2.68	0.074	8.2		<0.03	0.0	<10	12.2		2.75		2.96	0.06	2.84	
	13/10/2010 09:10	13/10/2010 11:47	463221		0.20	<2		15	285	100	10.7	2187		460	1.53	0.070	8.0		<0.03	0.0	<10	12.6		1.60		1.99	0.04	1.8	
	20/10/2010 09:35	20/10/2010 13:55	465856		0.07	<2		16	293	105	12.0	1153		230	1.62	0.061	8.1		<0.03	0.0	<10	9.8		1.69		1.96	0.05	1.76	
	27/10/2010 09:15	27/10/2010 11:54	467683		<0.03	<2		13	494	100	11.3	521		136	2.66	0.007	8.3		<0.03	0.0	<10	10.0		2.66		2.89	0.04	2.68	
	03/11/2010 09:00	03/11/2010 12:47	469693		0.06	<2		28	464	98	11.0	3076		1345	1.70	0.027	8.2		0.07	0	26	10.1		1.73		2.46	0.14	1.79	
	10/11/2010 09:15	10/11/2010 13:54	471687		0.10	<2		24	460	99	11.7	1956		440	2.30	0.028	8.1		0.06	0	11	7.5		2.32		3.56	0.11	2.42	
	24/11/2010 09:10	24/11/2010 11:38	475971		0.32	<2		15	517	100	12.2	637		350	2.01	0.046	8.2		0.03	0	<10	6.7		2.06		3.11	0.05	2.38	

Sampling Point	Sample Taken Date Time	Sample Received Date Time	Sample Number	Sample Type: 110_RIVER															
				Ammonia	B.O.D.	C.O.D	Conductivity (20°C)	D.O.	D.O.	E. coli	Nitrate	Nitrite	pH	Phosphorus (React)	Suspended Solids	Temperature	TO N	Total Coliforms	D.I.N.
				mg/l as N	mg/l	mg/l	µS/cm	% Sat.	mg/l	MPN/100 ml	mg/l as N	mg/l as N	pH	mg/l as P	mg/l	°C	mg/l as N	MPN/100 ml	mg/l as N
(40067) Liffey City Heuston Stn u/s Camac ASW 7	19/08/2010 10:30	19/08/2010 12:32	444848	0.03	<2	12	2670	94	9.1	842	2.88	0.059	8.2	0.05	16	16.5	2.94	15531	2.97

Sampling Point	Sample Taken Date Time	Sample Received Date Time	Sample Number	Sample Type: 110B_RIVER																									
				Ammonia	Ammonia	B.O.D	B.O.D. Saline	C.O.D	Conductivity (20°C)	D.O.	D.O.	E. coli	Enterococci	Enterococci (Confirmed)	Nitrate	Nitrite	pH	Phosphorus (React)	Phosphorus (React)	Salinity	Suspended Solids	Temperature	TO N	TO N	Total Coliforms	Total Nitrogen	Total Nitrogen	Total Phosphorus	DIN
				µg/l as N	mg/l as N	mg/l	mg/l	mg/l	µS/cm	% Sat.	mg/l	MPN/100 ml	CFU/100 ml	CFU/100 ml	mg/l as N	mg/l as N	pH	µg/l SRP as P	mg/l as P	PSU	mg/l	°C	µg/l as N	mg/l as N	MPN/100 ml	µg/l	mg/l as N	mg/l as P	mg/l as N
(40068) Liffey Frank Sherwin Bridge ASW 7	18/08/2010 09:35	18/08/2010 11:55	444277	21		<2			3840	93	9.0	300	68			8.2	77		2.1	<10	16.3	2330		5980			0.09	2.35	
	25/08/2010 09:40	25/08/2010 12:22	446829		0.08	<2		17	2680	126	12.6	520	200			8.1	0.07	1.4	<10	15.3		2.67			2.82	0.09	2.75		
	01/09/2010 10:30	01/09/2010 12:25	449116		0.03	<2		22	5180	102	10.4	200	84			8.2	0.04	2.9	41	15.1		3.02			3.15	0.07	3.05		
	08/09/2010 10:00	08/09/2010 12:40	451314		0.17	2		20	419	95	9.6	11199		2000	2.20	0.047	8.2	0.09	0	<10	14.6		2.25			2.75	0.12	2.42	
	15/09/2010 09:35	15/09/2010 11:35	453086		0.09	<2		21	430	96	9.8	4352		1255	1.52	0.034	8.2	0.06	0	10	14.4		1.56			2.14	0.10	1.65	
	22/09/2010 09:50	22/09/2010 11:58	455821		0.11	<2		16	344	96	9.7	3873		1227	1.23	0.033	8.2	0.04	0	<10	15.1		1.26			1.87	0.07	1.37	
	29/09/2010 09:35	29/09/2010 11:30	458323		0.25	<2		12	576	95	10.2	6488		670	2.28	0.093	8.2	0.04	0.1	<10	12.2		2.37			2.94	0.06	2.62	
	06/10/2010 09:50	06/10/2010 12:05	460766		0.06	<2		13	1413	89	9.5	1354		310	2.23	0.045	8.2	<0.03	0.6	<10	12.2		2.28			2.60	0.07	2.34	
	13/10/2010 09:50	13/10/2010 11:47	463223		0.20	<2		13	311	101	10.7	2481		570	1.49	0.068	8.1	<0.03	0.0	<10	12.6		1.56			2.14	0.05	1.76	
	20/10/2010 09:45	20/10/2010 13:55	465858		0.10	<2		48	6110	99	11.3	1607		300	1.96	0.053	7.9	0.04	3.4	24	10.1		2.01			0.06	2.11		
	27/10/2010 09:45	27/10/2010 11:54	467685		0.03	<2		20	2250	97	10.9	833		260	2.60	0.011	8.2	0.03	1.1	<10	10.2		2.61			4.63	0.05	2.64	
	03/11/2010 09:15	03/11/2010 12:47	469695		0.06	2		29	471	99	11.1	3448		1264	1.71	0.029	8.2	0.07	0	43	10.1		1.74			2.39	0.14	1.8	
	10/11/2010 09:40	10/11/2010 13:55	471692		0.10	<2		24	471	101	11.9	3076		530	2.30	0.027	8.2	0.05	0	12	7.6		2.32			3.29	0.10	2.42	
	17/11/2010 01:10	17/11/2010 08:55	473771		0.14	3		17	376	79		7270		6000	1.56	0.027	8.2	<0.03	0.0	31	8.1		1.59			2.36	0.10	1.73	
	24/11/2010 09:50	24/11/2010 11:38	475973		0.27	<2		14	520	99	12.1	1354		530	2.11	0.043	8.2	0.04	0	<10	6.7		2.16			3.10	0.06	2.43	

Sample Type: 110B_RIVER

Sampling Point	Sample Taken Date Time	Sample Received Date Time	Sample Number	Ammonia	Ammonia	B.O.D.	B.O.D. Saline	C.O.D.	Conductivity (20°C)	D.O.	D.O.	E. coli	Enterococci	Enterococci (Confirmed)	Nitrate	Nitrite	pH	Phosphorus (React)	Phosphorus (React)	Salinity	Suspended Solids	Temperature	TON	TON	Total Coliforms	Total Nitrogen	Total Nitrogen	Total Phosphorus	DIN	
				µg/l as N	mg/l as N	mg/l	mg/l	mg/l	µS/cm	% Sat.	mg/l	MPN/100ml	CFU/100ml	CFU/100ml	mg/l as N	mg/l as N	pH	µg/l SRP as P	mg/l as P	PSU	mg/l	°C	µg/l as N	mg/l as N	MPN/100ml	µg/l	mg/l as N	mg/l as P	mg/l as N	
(40072) Liffey City Winetav St Bridge ASW 8	18/08/2010 10:10	18/08/2010 11:55	444281	<10		<2			11110	92	9.0	310	87				8.1	68		6.8	14	16.4	1470		3310			0.08	1.48	
	19/08/2010 10:50	19/08/2010 12:32	444849		0.04	<2		28	10210	92	9.0	1576			3.37	0.049	8.1		0.05	6.1	45	16.6		3.42	>24196		3.58	0.08	3.46	
	25/08/2010 10:25	25/08/2010 12:22	446833	100			<2		27300	112	11.1	310	140				8.0	42		17.9	42	15.7	1070					0.07	1.17	
	01/09/2010 11:10	01/09/2010 12:25	449120		0.29	<2		65	13660	100	10.1	<100	85		1.04	0.011	8.2		0.04	8.5	49	15.5		1.06			2.53	0.06	1.35	
	08/09/2010 10:45	08/09/2010 12:40	451318		0.17	2		20	783	92	9.4	14136		2000	2.24	0.046	8.2		0.10	0.1	<10	15.0		2.29			2.77	0.13	2.46	
	15/09/2010 10:10	15/09/2010 11:35	453090		0.09	<2		23	533	97	9.8	2909		1082	1.68	0.034	8.2		0.07	0	15	14.6		1.71			2.17	0.11	1.8	
	22/09/2010 10:25	22/09/2010 11:58	455825		0.11	<2		17	435	95	9.6	9208		1700	1.36	0.036	8.2		0.05	0	<10	15.3		1.39			2.00	0.08	1.5	
	29/09/2010 10:15	29/09/2010 11:30	458327		0.23	<2		20	1298	94	10.0	7270		1018	2.24	0.086	8.2		0.04	0.5	<10	12.4		2.33			2.99	0.07	2.56	
	06/10/2010 10:25	06/10/2010 12:05	460770	49		<2		<100	11530	92	9.6	677		270			8.0	20		7.0	49	12.5	1020					2.12	0.06	1.07
	13/10/2010 10:30	13/10/2010 11:47	463227		0.19	<2		30	1193	98	10.5	1789		560	1.56	0.061	8.0		0.04	0.4	<10	12.6		1.62				2.12	0.05	1.81
	20/10/2010 10:25	20/10/2010 13:56	465862		0.10	<2		<100	8040	98	11.3	1607		310	2.30	0.052	7.9		0.04	4.7	33	9.7		2.36				0.05	2.46	
	27/10/2010 10:25	27/10/2010 11:54	467689		0.36	<2		<100	15820	95	10.6	744		280	0.78	0.011	8.0		0.04	9.4	21	10.5		0.79			2.29	0.05	1.15	
	03/11/2010 09:40	03/11/2010 12:47	469699		0.06	<2		24	509	99	11.0	3448		1255	1.70	0.030	8.2		0.07	0	27	10.1		1.73			2.42	0.12	1.79	
	10/11/2010 10:10	10/11/2010 13:55	471699		0.10	<2		23	469	100	11.9	4884		500	2.24	0.027	8.2		0.06	0	12	7.5		2.26			3.37	0.11	2.36	
	17/11/2010 01:45	17/11/2010 08:56	473775		0.18	>7		37	377	98		>24196		6400	1.57	0.027	8.1		<0.03	0.0	20	8.0		1.60			2.21	0.14	1.78	
	24/11/2010 10:30	24/11/2010 11:38	475977		0.28	<2		16	554	99	12.2	805		400	1.98	0.046	8.2		0.03	0	<10	6.5		2.02				3.02	0.06	2.3
	(40457) Liffey (S) D/S Toll Bridge ASW 9	18/08/2010 11:20	18/08/2010 11:55	444286	<10			3		29300	105	10.3	200	48				8.1	29		19.3	41	16.3	702		2430	<900		0.06	0.71
19/08/2010 10:40		19/08/2010 12:32	444850		0.47	<2		86	19280	94	9.3	3255			0.19	0.009	8.1		<0.03	12.2	13	15.4		0.20	24196		0.75	0.04	0.67	
25/08/2010 11:25		25/08/2010 12:22	446838	66			<2		32600	114	11.3	200	58				8.0	27		21.9	52	16.1	563			<900		0.05	0.63	
01/09/2010 12:05		01/09/2010 12:25	449129	29			<2	126	21700	98	9.7	100	64				8.1	28		14.0	81	15.9	1170					0.05	1.2	
08/09/2010 12:00		08/09/2010 12:40	451323		0.14	<2		33	4370	93	9.2	15531		2000	2.18	0.030	8.1		0.08	2.4	20	15.6		2.21			2.39	0.12	2.35	
15/09/2010 10:50		15/09/2010 11:35	453095	48			<2	<100	20400	97	9.7	2481		650			8.0	20		13.2	13	14.9	411	0.10			1.33	0.08	0.15	
22/09/2010 11:30		22/09/2010 11:58	455830		0.10	<2		29	2230	97	9.6	9208		1627	1.31	0.025	8.2		0.04	1.1	<10	15.6		1.33			1.73	0.06	1.43	
29/09/2010 11:00		29/09/2010 11:30	458332				<2		19070	90	9.4	6867		973			8.0		0.04	12.3	27	13.1					1.85	0.07		
06/10/2010 11:10		06/10/2010 12:05	460775	79			<2	<100	16130	93	9.0	613		200			8.0	24		10.1	16	12.5	981					2.06	0.06	1.06
13/10/2010 11:10		13/10/2010 11:47	463232		0.53	<2			15910	96	10.3	1664		430	0.40	0.039	8.0		0.04	10.0	18	12.9		0.43				1.65	0.05	0.96
20/10/2010 11:20		20/10/2010 13:56	465867	62			<2		4000	106	11.6	187	64				8.0	7		27.1	178	11.8	98					0.04	0.16	
27/10/2010 11:10		27/10/2010 11:54	467694	35			<2	411	2800	96	10.6	563		220			8.0	<5		18.6	34	11.0	378					0.04	0.42	
03/11/2010 10:25		03/11/2010 12:47	469704		0.06	<2		36	5360	98	11.0	2481		945	0.76	0.011	8.1		<0.03	3.0	55	10.0		0.78			1.32	0.06	0.84	
10/11/2010 10:50		10/11/2010 13:55	471708		0.11	<2		37	2410	100	11.8	2046		670	2.28	0.025	8.1		0.06	1.2	12	7.7		2.31			3.35	0.11	2.42	
17/11/2010 02:20		17/11/2010 08:56	473780		0.23	6		56	4060	96		>24196		12400	1.61	0.020	8.0		0.03	2.2	34	8.1		1.63			2.20	0.12	1.86	
24/11/2010 11:20		24/11/2010 11:38	475982		0.06	<2		45	3440	99	12.3	738		630	1.41	0.013	8.1		<0.03	1.8	<10	6.4		1.42				1.82	0.03	1.48

Sample Type: 110_RIVER
Sampling Point (45082) Tolka River, D/S
ASW 10
Sample Taken Sample Received

Date	Time	Date	Time	Sample Number	Ammonia	B.O.D.	C.O.D.	Conductivity (20°C)	D.O.	D.O.	E. coli	Nitrate	Nitrite	pH	Phosphorus (React)	Suspended Solids	Temperature	TON	Total Coliforms	D.I.N.
					mg/l as N	mg/l	mg/l	µS/cm	% Sat.	mg/l	MPN/100ml	mg/l as N	mg/l as N	pH	mg/l as P	mg/l	°C	mg/l as N	MPN/100ml	mg/l as N
05/08/2010	11:10	05/08/2010	11:50	439622	<0.03	<2	<10	514	141	14.1	857	1.03	0.020	8.6	0.11	12	15.4	1.05	15531	1.07
02/09/2010	11:05	02/09/2010	12:35	449696	0.03	<2	<10	740	126	12.8	1483	0.78	0.013	8.5	0.08	<10	15.1	0.80	8164	0.83
14/10/2010	10:40	14/10/2010	12:08	463890	0.07	<2	<10	668	93	10.3	3076	1.38	0.037	8.2	0.14	<10	11.3	1.42	24196	1.49

**Sample Type: 121_BEACH –
Dollymount Bathing
Zone ASW 12**

Sample Taken Date	Sample Taken Time	Sample Received Date	Sample Received Time	Sample Number	Colour (Visual)	Dissolved Oxygen % Sat.	E. coli MPN/100ml	Enterococci CFU/100ml	Enterococci (Confirmed) CFU/100ml	Faecal Coliform CFU/100ml	Floating Materials	Mineral Oil (visual)	pH	Phenols_Olfactory	Salinity PSU	Surfactants	Temperature °C	Total Coliform CFU/100ml	Transparency m
09/06/2010	09:00	09/06/2010	11:54	417442	Normal	118	20	2		<9	Absent	Absent	8.2	Absent	32.5	Absent	14.5	36	>1
15/06/2010	13:05	15/06/2010	14:24	420028	Normal	120		2		<9	Absent	Absent	8.3	Absent	33.4	Absent	19.0	<9	>1
22/06/2010	08:30	22/06/2010	12:50	423116	Normal	119		<1		55	Absent	Absent	8.2	Absent	34.1	Absent	18.6	2100	>1
27/06/2010	09:10	28/06/2010	09:12	425042	Normal	102		37		27	Absent	Absent	8.1	Absent	34.0	Absent	20.8	45	>1
06/07/2010	08:35	06/07/2010	11:27	428869	Normal	118		1		9	Absent	Absent	8.2	Absent	34.0	Absent	15.1	<9	>1
10/07/2010	11:15	12/07/2010	11:35	431365	Normal	125			210	210	Absent	Absent	7.8	Absent	36.0	Absent	17.0	800	>1
13/07/2010	10:00	13/07/2010	14:33	432345	Normal	115		50		18	Absent	Absent	8.4	Absent	33.7	Absent	18.1	55	>1
15/07/2010	13:30	15/07/2010	14:22	433202	Normal	120			900	350	Absent	Absent	8.4	Absent	33.4	Absent	19.4	127	>1
21/07/2010	08:30	21/07/2010	12:21	434834	Normal	118		20		9	Absent	Absent	8.2	Absent	33.2	Absent	18	18	>1
26/07/2010	11:45	26/07/2010	14:14	436234	Normal	109		<1		<9	Absent	Absent	8.2	Absent	33.6	Absent	19.7	55	>1
09/08/2010	11:00	09/08/2010	12:13	440621	Normal				150	200	Absent	Absent	8.2	Absent	33.6	Absent	16.7	440	>1
11/08/2010	11:30	11/08/2010	14:01	441622	Normal	119		27		36	Absent	Absent	8.2	Absent	34.2	Absent	15.9	109	>1
18/08/2010	08:15	18/08/2010	12:51	444337	Normal	113		15		45	Absent	Absent	8.1	Absent	33.9	Absent	14.7	64	0
24/08/2010	10:00	24/08/2010	14:04	446493	Normal	116		24		36	Absent	Absent	8.2	Absent	33.2	Absent	13.2	270	>1
31/08/2010	12:00	31/08/2010	14:24	448541	Normal	110		1		<9	Absent	Absent	8.4	Absent	33.2	Absent	16.5	9	>1

Sample Type: 121_BEACH – Bull Wall, Wood Causeway ASW 14

Sample Taken Date Time Sample Received Date Time Sample Number

09/06/2010 11:00 09/06/2010 11:54 417443
 15/06/2010 11:45 15/06/2010 14:24 420029
 22/06/2010 10:00 22/06/2010 12:50 423117
 27/06/2010 09:50 28/06/2010 09:12 425043
 06/07/2010 10:00 06/07/2010 11:27 428870
 10/07/2010 11:30 12/07/2010 11:35 431366
 13/07/2010 10:00 13/07/2010 14:33 432346
 15/07/2010 12:30 15/07/2010 14:22 433203
 21/07/2010 10:00 21/07/2010 12:21 434835
 26/07/2010 12:25 26/07/2010 14:14 436235
 09/08/2010 09:30 09/08/2010 12:13 440622
 11/08/2010 10:45 11/08/2010 14:01 441623
 18/08/2010 09:30 18/08/2010 12:51 444338
 24/08/2010 11:00 24/08/2010 14:04 446494
 31/08/2010 13:15 31/08/2010 14:24 448542

Colour (Visual)	Dissolved Oxygen % Sat.	E. coli MPN/100ml	Enterococci CFU/100ml	Enterococci (Confirmed) CFU/100ml	Faecal Coliform CFU/100ml	Floating Materials	Mineral Oil (visual)	pH	Phenols_Olfactory	Salinity PSU	Surfactants	Temperature °C	Total Coliform CFU/100ml	Transparency m
Normal	117	199	63		55	Absent	Absent	8.0	Absent	29.7	Absent	15.5	1018	>1
Normal	119		28		27	Absent	Absent	8.2	Absent	32.8	Absent	19.3	136	>1
Normal	117		23		118	Absent	Absent	8.1	Absent	30.1	Absent	17.6	260	>1
Normal	93		68		18	Absent	Absent	8.1	Absent	32.2	Absent	18.3	145	>1
Normal	117		15		45	Absent	Absent	8.1	Absent	32.3	Absent	15.8	220	>1
Normal	120			420	2400	Absent	Absent	8.0	Absent	34.0	Absent	17.0	12200	>1
Normal	114		1		9	Absent	Absent	8.2	Absent	32.4	Absent	18.3	27	>1
Normal	120		54		145	Absent	Absent	8.2	Absent	28.6	Absent	18.5	800	>1
Normal	117		79		91	Absent	Absent	8.1	Absent	29.6	Absent	17	720	>1
Normal	109		3		<9	Absent	Absent	8.2	Absent	31.6	Absent	19.6	18	>1
Normal	113		52		220	Absent	Absent	8.1	Absent	30.7	Absent	16.8	280	>1
Normal	118		25		64	Absent	Absent	8.2	Absent	32.0	Absent	16.8	280	>1
Normal	111		32		64	Absent	Absent	8.1	Absent	32.0	Absent	16.1	430	0
Normal	119			200	310	Absent	Absent	8.1	Absent	31.2	Absent	13.5	955	>1
Normal	110		<1		<9	Absent	Absent	8.5	Absent	30.6	Absent	17.0	109	>1

**Sampling Point (40538)
Poolbeg Outfall
Main Discharge
ASW 15**

Sample Taken		Sample Received		Sample Number	Colour (Visual)	Dissolved Oxygen % Sat.	E. coli MPN/100ml	Enterococci CFU/100ml	Enterococci (Confirmed) CFU/100ml	Faecal Coliform CFU/100ml	Floating Materials	Mineral Oil (visual)	pH	Phenols_Olfactory	Salinity PSU	Surfactants	Temperature °C	Total Coliform CFU/100ml	Transparency m
Date	Time	Date	Time																
09/06/2010	09:40	09/06/2010	11:45	417404	Normal	95	1396		520	1300	Absent	Absent	7.6	Absent	22.4	Absent	17.6	8500	>1
15/06/2010	13:30	15/06/2010	14:57	420130	Normal	112		75		64	Absent	Absent	8.2	Absent	27.6	Absent	17.8	827	>1
22/06/2010	10:20	22/06/2010	12:19	423092	Normal	97			340	800	Absent	Absent	7.8	Absent	29.3	Absent	18.4	4400	>1
27/06/2010	10:50	28/06/2010	09:12	425044	Normal	62		16		18	Absent	Absent	8.1	Absent	32.2	Absent	17.3	390	>1
06/07/2010	07:10	06/07/2010	12:19	428919	Normal	94		35		109	Absent	Absent	7.9	Absent	30.0	Absent	16.7	360	>1
10/07/2010	12:00	12/07/2010	11:35	431367	Normal	98			840	2800	Absent	Absent	7.7	Absent	33.0	Absent	17.5	14500	>1
13/07/2010	12:20	13/07/2010	13:51	432146	Normal	99			430	250	Absent	Absent	8.0	Absent	30.7	Absent	17.5	1327	>1
20/07/2010	07:30	20/07/2010	12:14	434361	Normal	96			139	240	Absent	Absent	7.8	Absent	28.1	Absent	18.1	1318	>1
21/07/2010	08:50	21/07/2010	11:08	434754	Normal	97			320	720	Absent	Absent	7.9	Absent	27.6	Absent	18.4	5200	>1
26/07/2010	11:35	26/07/2010	14:03	436147	Normal	106		25		73	Absent	Absent	7.9	Absent	29.9	Absent	19.5	530	>1
04/08/2010	06:40	04/08/2010	11:30	439021	Normal	94			1560	8000	Absent	Absent	7.7	Absent	27.5	Absent	17.6	>20000	>1
09/08/2010	11:30	09/08/2010	13:57	440753	Normal	100			240	490	Absent	Absent	7.9	Absent	29.3	Absent	19.5	550	>1
18/08/2010	08:00	18/08/2010	12:25	444311	Normal	92			145	580	Absent	Absent	7.9	Absent	30.4	Absent	17.7	4800	>1
24/08/2010	11:35	24/08/2010	13:51	446481	Normal	97			580	3100	Absent	Absent	7.9	Absent	29.9	Absent	16.8	10800	>1
30/08/2010	13:15	30/08/2010	14:40	448049	Normal	102		37		118	Absent	Absent	7.7	Absent	21.9	Absent	19.8	2000	>1

Sample Type: 121_BEACH – Half Moon Clun S-Side Wall ASW16

Sample Taken Date Time Sample Received Date Time Sample Number

09/06/2010 09:50 09/06/2010 11:45 417405
 15/06/2010 13:40 15/06/2010 14:57 420131
 22/06/2010 10:35 22/06/2010 12:19 423093
 27/06/2010 11:05 28/06/2010 09:12 425045
 06/07/2010 07:25 06/07/2010 12:19 428920
 10/07/2010 12:30 12/07/2010 11:35 431368
 13/07/2010 12:30 13/07/2010 13:51 432147
 20/07/2010 07:40 20/07/2010 12:15 434362
 21/07/2010 09:00 21/07/2010 11:08 434755
 26/07/2010 11:45 26/07/2010 14:03 436148
 04/08/2010 06:50 04/08/2010 11:30 439022
 09/08/2010 11:40 09/08/2010 13:57 440754
 18/08/2010 08:10 18/08/2010 12:25 444312
 24/08/2010 11:45 24/08/2010 13:53 446482
 30/08/2010 13:25 30/08/2010 14:40 448050

Colour (Visual)	Dissolved Oxygen % Sat.	E. coli MPN/100ml	Enterococci CFU/100ml	Enterococci (Confirmed) CFU/100ml	Faecal Coliform CFU/100ml	Floating Materials	Mineral Oil (visual)	pH	Phenols_Olfactory	Salinity PSU	Surfactants	Temperature °C	Total Coliform CFU/100ml	Transparency m
Normal	102	10	1		<9	Absent	Absent	8.1	Absent	33.8	Absent	14.7	27	>1
Normal	123			300	45	Absent	Absent	8.4	Absent	34.5	Absent	18.4	127	>1
Normal	111		31		18	Absent	Absent	8.1	Absent	35.3	Absent	18.5	<9	>1
Normal	76		31		45	Absent	Absent	8.2	Absent	34.8	Absent	20.6	145	>1
Normal	95		5		9	Absent	Absent	8.1	Absent	35.3	Absent	15.3	<9	>1
Normal	101		96		9	Absent	Absent	8.1	Absent	36.0	Absent	17.3	82	>1
Normal	107			1740	9	Absent	Absent	8.2	Absent	34.9	Absent	17.3	173	>1
Normal	87		35		18	Absent	Absent	8.0	Absent	34.6	Absent	16.2	27	>1
Normal	102		9		9	Absent	Absent	8.2	Absent	34.8	Absent	17.5	45	>1
Normal	109		29		145	Absent	Absent	8.2	Absent	35.0	Absent	19.9	340	>1
Normal	83		38		45	Absent	Absent	8.0	Absent	32.9	Absent	15.7	91	>1
Normal	88		11		9	Absent	Absent	8.0	Absent	34.8	Absent	17.9	200	>1
Normal	90		24		55	Absent	Absent	8.1	Absent	34.7	Absent	15.7	250	>1
Normal	100		56		220	Absent	Absent	8.1	Absent	34.7	Absent	13.8	430	>1
Normal	103		11		<9	Absent	Absent	8.2	Absent	34.6	Absent	18.6	18	>1

Sample Type: 121_BEACH – Sandymount ASW17

Sample Taken Date Time Sample Received Date Time Sample Number

27/06/2010 12:00 28/06/2010 09:12 425046
 06/07/2010 07:50 06/07/2010 12:19 428921
 10/07/2010 13:30 12/07/2010 11:35 431369
 13/07/2010 12:50 13/07/2010 13:51 432148
 20/07/2010 08:05 20/07/2010 12:15 434363
 21/07/2010 09:20 21/07/2010 11:08 434756
 26/07/2010 12:15 26/07/2010 14:03 436149
 04/08/2010 07:15 04/08/2010 11:30 439023
 09/08/2010 12:00 09/08/2010 13:57 440755
 18/08/2010 07:35 18/08/2010 12:25 444313
 24/08/2010 12:10 24/08/2010 13:53 446483
 30/08/2010 13:45 30/08/2010 14:40 448051

Colour (Visual)	Dissolved Oxygen % Sat.	E. coli MPN/100ml	Enterococci CFU/100ml	Enterococci (Confirmed) CFU/100ml	Faecal Coliform CFU/100ml	Floating Materials	Mineral Oil (visual)	pH	Phenols_Olfactory	Salinity PSU	Surfactants	Temperature °C	Total Coliform CFU/100ml	Transparency m
Normal	113		2		<9	Absent	Absent	8.2	Absent	33.8	Absent	18.6	18	>1
Normal	79		17		18	Absent	Absent	8.0	Absent	35.8	Absent	14.6	27	>1
Normal	90		17		9	Absent	Absent	8.1	Absent	34.6	Absent	16.0	9	>1
Normal	99			111	145	Absent	Absent	8.1	Absent	34.8	Absent	18.2	145	>1
Normal	80		36		82	Absent	Absent	8.0	Absent	34.0	Absent	16.4	155	>1
Normal	83		11		9	Absent	Absent	8.1	Absent	34.1	Absent	17.5	91	>1
Normal	106		2		27	Absent	Absent	8.1	Absent	34.8	Absent	22.2	64	>1
Normal	77			107	430	Absent	Absent	7.8	Absent	27.1	Absent	13.8	680	>1
Normal	103			720	460	Absent	Absent	8.1	Absent	34.8	Absent	19.5	660	>1
Normal	83		25		100	Absent	Absent	8.1	Absent	34.6	Absent	15.2	173	>1
Normal	98		15		<9	Absent	Absent	8.2	Absent	34.1	Absent	14.8	27	>1
Normal	107		5		<9	Absent	Absent	8.2	Absent	35.5	Absent	19.1	18	>1

Sample Type: 121_BEACH –
Merrion Strand
ASW18

Sample Taken		Sample Received		Sample Number
Date	Time	Date	Time	
09/06/2010	10:40	09/06/2010	11:45	417407
15/06/2010	14:20	15/06/2010	14:57	420133
22/06/2010	09:50	22/06/2010	12:19	423095
27/06/2010	12:35	28/06/2010	09:12	425047
06/07/2010	08:25	06/07/2010	12:19	428922
10/07/2010	14:30	12/07/2010	11:35	431370
13/07/2010	13:10	13/07/2010	13:51	432149
20/07/2010	08:25	20/07/2010	12:15	434364
21/07/2010	09:45	21/07/2010	11:08	434757
26/07/2010	12:35	26/07/2010	14:03	436150
04/08/2010	07:35	04/08/2010	11:30	439024
09/08/2010	12:25	09/08/2010	13:57	440756
18/08/2010	07:15	18/08/2010	12:25	444314
24/08/2010	12:25	24/08/2010	13:53	446484
30/08/2010	14:00	30/08/2010	14:40	448058

Colour (Visual)	Dissolved Oxygen % Sat.	E. coli MPN/100ml	Enterococci CFU/100ml	Enterococci (Confirmed) CFU/100ml	Faecal Coliform CFU/100ml	Floating Materials	Mineral Oil (visual)	pH	Phenols_Olfactory	Salinity PSU	Surfactants	Temperature °C	Total Coliform CFU/100ml	Transparency m
Normal	97	10	12		18	Absent	Absent	8.2	Absent	33.1	Absent	16.1	18	>1
Normal	107		1		<9	Absent	Absent	8.2	Absent	34.2	Absent	21.3	<9	>1
Normal	85		12		<9	Absent	Absent	7.8	Absent	35.5	Absent	17.9	<9	>1
Normal	89		6		9	Absent	Absent	8.1	Absent	34.3	Absent	20.1	18	>1
Normal	95		37		91	Absent	Absent	8.1	Absent	34.9	Absent	15.2	145	>1
Normal	84		30		27	Absent	Absent	8.1	Absent	32.4	Absent	16.4	100	>1
Normal	102		41		27	Absent	Absent	8.1	Absent	34.8	Absent	18.1	55	>1
Normal	92		9		27	Absent	Absent	8.0	Absent	34.2	Absent	17.0	36	>1
Normal	89		33		400	Absent	Absent	8.1	Absent	33.5	Absent	17.9	640	>1
Normal	102		7		18	Absent	Absent	8.1	Absent	34.7	Absent	21.0	210	>1
Normal	87		36		82	Absent	Absent	8.0	Absent	32.4	Absent	15.0	580	>1
Normal	107		95		9	Absent	Absent	8.2	Absent	24.9	Absent	18.9	164	>1
Normal	86		36		82	Absent	Absent	8.1	Absent	34.8	Absent	14.9	109	>1
Normal	106		18		27	Absent	Absent	8.2	Absent	34.6	Absent	15.2	36	>1
Normal	104		1		<9	Absent	Absent	8.2	Absent	35.1	Absent	18.1	<9	>1

2.4 Data Collection and Reporting Requirements under the Urban Waste Water Treatment Directive

The electronic submission of the 2010 Report was made to the EPA on 28/02/2010.

2.5 Pollution Release and Transfer Register Report, 2010

The PRTR Report for 2010 was submitted to the EPA on 25/02/2011.
A copy is included in this section.



| PRTR# : D0034 | Facility Name : Ringsend Waste Water Treatment Plant | Filename : Copy of D0034_2010 submitted by Lab.xlsm | Return Year : 2010 |

[Guidance to completing the PRTR workbook](#)

AER Returns Workbook

Version 1.1.11

REFERENCE YEAR	2010
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1. FACILITY IDENTIFICATION

Parent Company Name	Dublin City Council
Facility Name	Ringsend Waste Water Treatment Plant
PRTR Identification Number	D0034
Licence Number	D0034-01

Waste or IPPC Classes of Activity

No.	class_name
30.4	General

Address 1	Block 4, Floor 4
Address 2	Civic Offices
Address 3	Wood Quay
Address 4	Dublin 8
	Dublin
Country	Ireland
Coordinates of Location	-6.19514 53.339
River Basin District	IEEA
NACE Code	3700
Main Economic Activity	Sewerage
AER Returns Contact Name	Pat Cronin
AER Returns Contact Email Address	pat.cronin@dublincity.ie
AER Returns Contact Position	Executive Manager
AER Returns Contact Telephone Number	
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	0
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
5(f)	Urban waste-water treatment plants

3. SOLVENTS REGULATIONS (S.I. No. 543 of 2002)

Is it applicable?	
Have you been granted an exemption ?	
If applicable which activity class applies (as per Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being used ?	

4.1 RELEASES TO AIR		Link to previous years emissions data			PRTR# : D0034 Facility Name : Ringsend Waste Water Treatment Plant Filename : Copy of D0034_2010 submitted by Lab.xlsm Return Year : 2010			07/03/2011 11:14	
8	14	22	22	30	30	6	6	6	
SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS									
RELEASES TO AIR									
						ADD EMISSION POINT quantities in this section in KGs			
POLLUTANT				METHOD			QUANTIT Y		
		Method Used							
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
01	Methane (CH4)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	25.3	0.0	25.3	
02	Carbon monoxide (CO)	E	ESTIMATE	EPA UWWTP Tool v4.0	18538.9	23471.0	0.0	4932.1	
03	Carbon dioxide (CO2)	E	ESTIMATE	EPA UWWTP Tool v4.0	5463810.0	32589758.4	0.0	27125948.4	
05	Nitrous oxide (N2O)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	244.2	0.0	244.2	
07	Non-methane volatile organic compounds (NMVOC)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	1557.1	0.0	1557.1	
08	Nitrogen oxides (NOx/NO2)	E	ESTIMATE	EPA UWWTP Tool v4.0	56699.1	71783.4	0.0	15084.3	
11	Sulphur oxides (SOx/SO2)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	1472.0	0.0	1472.0	
ADD NEW ROW		DELETE ROW *		Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button					
SECTION B : REMAINING PRTR POLLUTANTS									
RELEASES TO AIR									
						Please enter all quantities in this section in KGs			
POLLUTANT				METHOD			QUANTIT Y		
		Method Used							
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
					0.0	0.0	0.0	0.0	
ADD NEW ROW		DELETE ROW *		Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button					
SECTION C : REMAINING POLLUTANT EMISSIONS (As required in your Licence)									
RELEASES TO AIR									
						Please enter all quantities in this section in KGs			
POLLUTANT				METHOD			QUANTIT Y		
		Method Used							
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	

							al) KG/Year	
						0.0	0.0	0.0
ADD NEW ROW	DELETE ROW *	Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button						
Additional Data Requested from Landfill operators								
For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under T(total) KG/yr for Section A: Sector specific PRTR pollutants above. Please complete the table below:								
Landfill:	Ringsend Waste Water Treatment Plant							
Please enter summary data on the quantities of methane flared and / or utilised			Method Used					
additional_pollutant_no	T (Total) kg/Year	M/C/ E	Method Code	Designation or Description	Facility Total Capacity m3 per hour			
Total estimated methane generation (as per site model)	0.0				N/A			
Methane flared	0.0				0.0	(Total Flaring Capacity)		
Methane utilised in engine/s	0.0				0.0	(Total Utilising Capacity)		
Net methane emission (as reported in Section A above)	0.0				N/A			

4.2 RELEASES TO WATERS		Link to previous years emissions data		PRTR# : D0034 Facility Name : Ringsend Waste Water Treatment Plant Filename : Copy of D0034_2010 submitted by Lab.xlsm Return Year : 2010				07/03/2011 11:14				
8		56		64		64	72	80	6	6	6	
SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS				Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only concerns Releases from your facility								
RELEASES TO WATERS				Please enter all quantities in this section in KGs								
POLLUTANT								ADD EMISSION POINT			QUANTITY	
				Method Used								
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year				
44	1,2,3,4,5,6-hexachlorocyclohexane(HCH)	E	ESTIMATE	EPA WWTP Tool V4.0	0.486	0.489	0.0	0.003				
34	1,2-dichloroethane (EDC)	E	ESTIMATE	EPA WWTP Tool V4.0	8.108	8.158	0.0	0.05				
25	Alachlor	E	ESTIMATE	EPA WWTP Tool V4.0	1.693	1.703	0.0	0.01				
61	Anthracene	E	ESTIMATE	EPA WWTP Tool V4.0	1.717	1.728	0.0	0.011				
17	Arsenic and compounds (as As)	E	ESTIMATE	EPA WWTP Tool V4.0	162.029	163.027	0.0	0.998				
27	Atrazine	E	ESTIMATE	EPA WWTP Tool V4.0	10.456	10.52	0.0	0.064				
91	Benzo(g,h,i)perylene	E	ESTIMATE	EPA WWTP Tool V4.0	0.653	0.657	0.0	0.004				
18	Cadmium and compounds (as Cd)	E	ESTIMATE	EPA WWTP Tool V4.0	8.716	8.77	0.0	0.054				
28	Chlordane	E	ESTIMATE	EPA WWTP Tool V4.0	0.324	0.326	0.0	0.002				
30	Chlorfenvinphos	E	ESTIMATE	EPA WWTP Tool V4.0	0.162	0.163	0.0	0.001				
79	Chlorides (as Cl)	E	ESTIMATE	EPA WWTP Tool V4.0	40352269.4	40600876.8	0.0	248607.4				
31	Chloro-alkanes, C10-C13	E	ESTIMATE	EPA WWTP Tool V4.0	34.06	34.27	0.0	0.21				
19	Chromium and compounds (as Cr)	E	ESTIMATE	EPA WWTP Tool V4.0	59.786	60.154	0.0	0.368				
20	Copper and compounds (as Cu)	E	ESTIMATE	EPA WWTP Tool V4.0	287.468	289.239	0.0	1.771				
82	Cyanides (as total CN)	E	ESTIMATE	EPA WWTP Tool V4.0	283.367	285.113	0.0	1.746				
33	DDT	E	ESTIMATE	EPA WWTP Tool V4.0	1.741	1.752	0.0	0.011				
70	Di-(2-ethyl hexyl) phthalate (DEHP)	E	ESTIMATE	EPA WWTP Tool V4.0	203.199	204.451	0.0	1.252				
36	Dieldrin	E	ESTIMATE	EPA WWTP Tool V4.0	33.677	33.884	0.0	0.207				
37	Diuron	E	ESTIMATE	EPA WWTP Tool V4.0	15.296	15.39	0.0	0.094				
38	Endosulphan	E	ESTIMATE	EPA WWTP Tool V4.0	1.009	1.015	0.0	0.006				
65	Ethyl benzene	E	ESTIMATE	EPA WWTP Tool V4.0	12.959	13.039	0.0	0.08				
88	Fluoranthene	E	ESTIMATE	EPA WWTP Tool V4.0	2.239	2.253	0.0	0.014				
83	Fluorides (as total F)	E	ESTIMATE	EPA WWTP Tool V4.0	56720.06	57069.51	0.0	349.45				
40	Halogenated organic compounds (as AOX)	E	ESTIMATE	EPA WWTP Tool V4.0	387.071	389.456	0.0	2.385				
42	Hexachlorobenzene (HCB)	E	ESTIMATE	EPA WWTP Tool V4.0	0.162	0.163	0.0	0.001				
43	Hexachlorobutadiene (HCBd)	E	ESTIMATE	EPA WWTP Tool V4.0	0.162	0.163	0.0	0.001				
89	Isodrin	E	ESTIMATE	EPA WWTP Tool V4.0	9.525	9.584	0.0	0.059				
23	Lead and compounds (as Pb)	E	ESTIMATE	EPA WWTP Tool V4.0	161.321	162.315	0.0	0.994				
45	Lindane	E	ESTIMATE	EPA WWTP Tool V4.0	0.405	0.407	0.0	0.002				
21	Mercury and compounds (as Hg)	E	ESTIMATE	EPA WWTP Tool V4.0	10.642	10.708	0.0	0.066				
68	Naphthalene	E	ESTIMATE	EPA WWTP Tool V4.0	74.272	74.73	0.0	0.458				
22	Nickel and compounds (as Ni)	E	ESTIMATE	EPA WWTP Tool V4.0	1257.312	1265.058	0.0	7.746				
64	Nonylphenol and Nonylphenol ethoxylates (NP/NPEs)	E	ESTIMATE	EPA WWTP Tool V4.0	10.74	10.806	0.0	0.066				
69	Organotin compounds (as total Sn)	E	ESTIMATE	EPA WWTP Tool V4.0	1.621	1.631	0.0	0.01				
48	Pentachlorobenzene	E	ESTIMATE	EPA WWTP Tool V4.0	0.162	0.163	0.0	0.001				
71	Phenols (as total C)	E	ESTIMATE	EPA WWTP Tool V4.0	2003.498	2015.841	0.0	12.343				
50	Polychlorinated biphenyls (PCBs)	E	ESTIMATE	EPA WWTP Tool V4.0	1.335	1.343	0.0	0.008				
72	Polycyclic aromatic hydrocarbons (PAHs)	E	ESTIMATE	EPA WWTP Tool V4.0	130.845	131.651	0.0	0.806				
52	Tetrachloroethylene (PER)	E	ESTIMATE	EPA WWTP Tool V4.0	72.601	73.048	0.0	0.447				
73	Toluene	E	ESTIMATE	EPA WWTP Tool V4.0	18.969	19.086	0.0	0.117				

12	Total nitrogen	M	OTH	Digestion & Colorimetry	3148759.991	3181896.601	0.0	33136.61
76	Total organic carbon (TOC) (as total C or COD/3)	M	OTH	Potassium Dichromate	4364669.64	4510863.61	0.0	146193.97
13	Total phosphorus	M	OTH	Digestion & Colorimetry	547631.2399	552128.8059	0.0	4497.566
57	Trichloroethylene	E	ESTIMATE	EPA WWTP Tool V4.0	12.301	12.377	0.0	0.076
77	Trifluralin	E	ESTIMATE	EPA WWTP Tool V4.0	0.28	0.282	0.0	0.002
75	Triphenyltin and compounds	E	ESTIMATE	EPA WWTP Tool V4.0	0.319	0.321	0.0	0.002
60	Vinyl chloride	E	ESTIMATE	EPA WWTP Tool V4.0	8.108	8.158	0.0	0.05
78	Xylenes	E	ESTIMATE	EPA WWTP Tool V4.0	45.379	45.659	0.0	0.28
24	Zinc and compounds (as Zn)	E	ESTIMATE	EPA WWTP Tool V4.0	5771.218	5806.774	0.0	35.556
ADD NEW ROW		DELETE ROW *		Click a row by double-clicking on the Pollutant Name (Column B) then click the delete button				
SECTION B : REMAINING PRTR POLLUTANTS								
RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT				ADD EMISSION POINT		QUANTITY		
				Method Used				
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0
ADD NEW ROW		DELETE ROW *		Click a row by double-clicking on the Pollutant Name (Column B) then click the delete button				
SECTION C : REMAINING POLLUTANT EMISSIONS (as required in your Licence)								
RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT				ADD EMISSION POINT		QUANTITY		
				Method Used				
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0
238	Ammonia (as N)	M	OTH	Colorimetric	1504076.37	1526108.09	0.0	22031.72
303	BOD	M	OTH	5-Day BOD Test	3120306.349	3327650.849	0.0	207344.5
306	COD	M	OTH	Potassium Dichromate	13094008.91	13532590.81	0.0	438581.9
362	Kjeldahl Nitrogen	M	OTH	Digestion & Colorimetry	2023626.57	2056279.69	0.0	32653.12
327	Nitrate (as N)	M	OTH	Colorimetric	1022799.5	1023262.63	0.0	463.13
372	Nitrite (as N)	M	OTH	Colorimetric	78979.13	79071.904	0.0	92.774
332	Ortho-phosphate (as PO4)	M	OTH	Colorimetric	424276.298	426352.452	0.0	2076.154
240	Suspended Solids	M	OTH	Gravimetric	6002066.813	6217142.213	0.0	215075.4

4.3 RELEASES TO WASTEWATER OR SEWER				Link to previous years emissions data	PRTR# : D0034 Facility Name : Ringsend Waste Water Treatment Plant Filename : Copy of D0034_2010 submitted by Lab.xlsm Return Year : 2010			07/03/2011 11:14	
8	8	16	16	6	6	6	6		
SECTION A : PRTR POLLUTANTS									
OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER				Please enter all quantities in this section in KGs					
POLLUTANT		METHOD			ADD EMISSION POINT		QUANTIT Y		
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
					0.0	0.0	0.0	0.0	
ADD NEW ROW		DELETE ROW *		* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button					
SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)									
OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER				Please enter all quantities in this section in KGs					
POLLUTANT		METHOD			ADD EMISSION POINT		QUANTIT Y		
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
					0.0	0.0	0.0	0.0	
ADD NEW ROW		DELETE ROW *		* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button					

4.4 RELEASES TO LAND		Link to previous years emissions data		PRTR# : D0034 Facility Name : Ringsend Waste Water Treatment Plant Filename : Copy of D0034_2010 submitted by Lab.xlsm Return Year : 2010			07/03/2011 11:14	
8	8	16	16	6	6	6	6	
SECTION A : PRTR POLLUTANTS								
RELEASES TO LAND						Please enter all quantities in this section in KGs		
POLLUTANT		METHOD		ADD EMISSION POINT		QUANTITY		
No. Annex II	Name	M/C/E	Method Used Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	
					0.0	0.0	0.0	
ADD NEW ROW	DELETE ROW *	* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button						
SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)								
RELEASES TO LAND						Please enter all quantities in this section in KGs		
POLLUTANT		METHOD		ADD EMISSION POINT		QUANTITY		
Pollutant No.	Name	M/C/E	Method Used Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	
					0.0	0.0	0.0	

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE			PRTR# : D0034 Facility Name : Ringsend Waste Water Treatment Plant Filename : Copy of D0034_2010 submitted by Lab.xlsm Return Year : 2010								07/03/2011 11:14	
5	8		Please enter all quantities on this sheet in Tonnes								3	
Transfer Destination	European Waste Code	Hazardous	Quantity T/Year	Description of Waste	Waste Treatment Operation	M/C/E	Method Used	Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
Within the Country	19 08 01	No	908.0	screenings	D1	M	Weighed	Offsite in Ireland	Greenstar Ltd,Permit No. CPD 735/5	Unit 41,Cookstown Industrial Estate,Tallaght,Dublin 24,Ireland		
Within the Country	19 08 02	No	264.0	waste from desanding	D1	M	Weighed	Offsite in Ireland	Greenstar Ltd,Permit No. CPD 735/5	Unit 41,Cookstown Industrial Estate,Tallaght,Dublin 24,Ireland		
Within the Country	19 08 05	No	25969.6	sludges from treatment of urban waste water	D1	M	Weighed	Offsite in Ireland	Peadar Byrne Haulage,Licence No. 990s70099508	P.Byrne Haulage,Baltinglass,Wicklow,Co. Wicklow,Ireland		
ADD NEW ROW	DELETE ROW *	a row by double-clicking the Description of Waste then click the delete button										
Link to previous years waste data												
Link to previous years waste summary data & percentage change												

Section 3 Complaint and Incident Reports

3.1 Complaints Summary

In 2010, Drainage Division received and processed 120 environmental complaints. In accordance with the requirements of the EPA under our Inspections Plan for 2010 and in compliance with the Recommended Minimum Criteria for Environmental Inspections (RMCEI), a complaints data base is compiled and records kept of all outcomes.

Ninety seven of the complaints were received orally while twenty three were received in writing.

All of the 120 complaints were investigated and after initial screening, 80 were found to be likely to have an impact on water quality. The remainder included complaints on issues such as dumping, odours, unauthorised car washing, etc.

The eighty complaints were each thoroughly investigated and closed off to the satisfaction of the Drainage Division.

No complaints were carried over into 2011 and it was not necessary to take enforcement proceedings on any of them.

3.2 Reported Incident Summary

Following the issuing of this licence, DCC met with the EPA and agreed to forward summary incident reports to the EPA on a quarterly basis.

A report covering October, November and December was submitted in January 2011.

Section 4 Infrastructural Assessment and Programme of Improvements

Section 4.1 Treatment Capacity

The Greater Dublin Area Agglomeration includes all of the geographical area of Dublin City Council and parts of Fingal County Council functional area, South Dublin County Council functional area, Dun Laoghaire Rathdown County Council functional area and meath County Council functional area. The agglomeration is served by one waste water treatment plant (WWTP) at Ringsend (Ringsend Treatment Plant), close to Dublin city centre. The Greater Dublin Area agglomeration is the largest agglomeration in Ireland, the measured population equivalent (p.e.) loading received at the WWTP in 2006 was 1.90 million. The corresponding figure for 2010 was 1.69 million. The existing WWTP has a design load capacity of c.1.64million p.e.

A project time chart for the extension to the plant is attached.

Section 4.2 Storm Water Overflow (SWO) Identification and Inspection Report

This information is not required until the second AER.

Section 4.3 Report on Progress Made and Proposals Being Developed to Meet the Improvement Programme Requirements

The four projects outlined below will address some current deficiencies in the network. These schemes are listed in the DoEHLG Water Services Investment Programme 2010-2012.

1. North Docklands Sewerage Scheme

This should have a significant positive impact on the spill frequency and quality of the existing CSOs in the North Docklands area of the City.

The scheme is currently divided into the following contracts:

Contract 1, Spencer Dock P.S: About to commence.

Contract 2, Rising Main and P.S. Overflow: Completed.

Contract 3, Liffey Services Installation Contract. Completed.

Contract 4, Provision of New Sewers:

2. GDRDP - City Centre Sewerage Scheme

The first stage of this Scheme was a detailed Flow Survey of the entire catchment, including water quality sampling. The Contract for a Flow Survey was completed at the end of November 2010. Future results arising from the combined sewer overflow studies and city centre sewerage schemes will form the basis of this section of the AER's. The construction of the Spencer Dock Pumping Station should contribute to this aspect of future AER's.

3. GDRDP – Rathmines and Pembroke Sewerage Scheme.

Extensive work has already been done on the construction and verification of the Infoworks hydraulic model of the catchment (and the proposed solutions). It is envisaged that the model will be employed in examination of these solutions and to assess the feasibility of some of the detailed proposals.

Local Improvement Works have been carried out in the R&P Sub-Catchments by the council's Drainage Reconstruction Division for e.g. Pembroke Lane (sewer upsizing), Eglington, Road (surface water separation), Mespil Road (sewer upsizing), Heytesbury Lane (sewer upsizing), Pembroke cottages (surface water separation), Larkfield & Kimmage (surface water separation).

1,545 linear metres of the Trunk Sewer in the catchment have been relined to date.

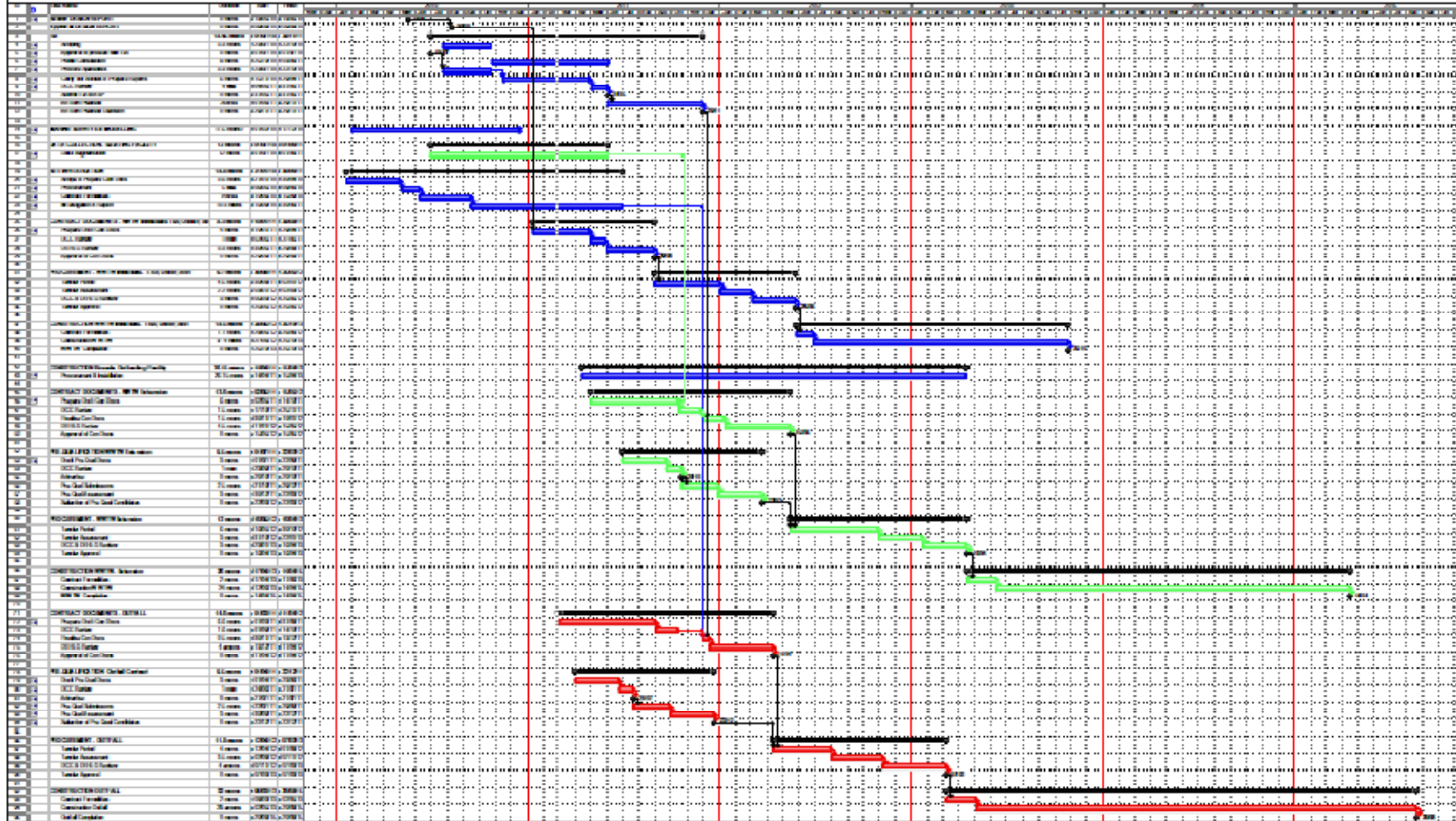
4 GDRDP – Grand Canal Surface Water Outfall

The project involves extending the existing surface water outfall from the current point of discharge into the Grand Canal Dock to a new discharge point in the river Liffey.

Environmentally the benefit of this project will be the removal of a Storm Water Outfall and overflow to the Grand Canal Dock.

Phase 1 of the Scheme was completed in January 2003.

It is anticipated the detailed design and contract document stage will be completed in 2011 for onward submission to the DEHLG for approval.



Section 5 Environmental Liability and Financial Provisions

This section is to be addressed in conjunction with the Environmental Liabilities Risk Assessment (ELRA) in 2011.

Section 6 Licence Specific Reports

6.1 Predicted Impacts Reports

To be addressed in 2011.

6.2 Assessment of Predicted Impacts on Habitats

To be addressed in 2011.

6.3 Development/Infrastructural Works Summary (completed in 2010 or prepared for 2011)

Please refer to Section 4 of this report.

6.4 Toxicity Report

To be addressed in 2011.

6.5 Environmental Liability and Financial Provisions

Please find attached a copy of our standard insurance policy issued by Irish Public Bodies Mutual Insurances Ltd.

As required, it is proposed to carry out the Environmental Liability Risk Assessment by July.



To Whom It May Concern

Insured	Dublin City Council
Public Liability Policy	CBL/109
Renewal Date	1st February 2012

This is to confirm that the above numbered Policy is in force to cover all the activities of the Insured.

The Public/Products Liability limit of indemnity provided is €50m any one occurrence unlimited any one period of insurance.

The policy is subject to the following inner limits of indemnity

Products Liability	- €50m any one occurrence and aggregated in any one period of insurance.
Sudden/Unforeseen Pollution	- €50m any one occurrence and aggregated in any one period of insurance.

Cover provided is subject to the Terms, Conditions, Exceptions and Endorsements of the Policy.

Signed 

Liability Underwriter

(For and on Behalf of Irish Public Bodies Mutual Insurances Ltd)



Ceantar Árachais Comhairlí Éirean n Teo

Reg No. 7522 Republic of Ireland Irish Public Bodies Mutual Insurances Ltd is regulated by the Central Bank of Ireland

6.6 Summary Report of Mass Loadings Received at the Ringsend Wastewater Treatment Plant and Removal Efficiencies

Mass Loadings 2010

The mass influent and effluent loadings are based on the daily mean influent and effluent flows multiplied by the mean parameter concentrations for 2010. See summary table below :

Parameter	2010 Influent Load (tonnes)	2010 Effluent Load (tonnes)	2010 Removal Efficiency (%)
BOD	39,348	2,924	92.57
COD	82,580	12,750	84.56
TSS	37,828	5,576	85.26
TN	6,347	3,154	50.31
TP	835	583	30.18
Annual Flow (cubic metres)	167,876,100	162,168,305	

Comment :

Efficiency of removal data for 2010 shows that the Ringsend Wastewater Treatment Plant complied well with the Urban Waste Water Treatment Regulations (2001 and 2004) requirements for minimum percentage reductions for the BOD and COD parameters. The percentage reductions required for TSS (90%), TP (80%) and TN (70%-80%) were not complied with during 2010.

6.7. Reports from Fingal County Council and South Dublin County Council

The following pages contain reports from Fingal County Council, South Dublin County Council and Dun Laoghaire Rathdown County Council relating to the submission of this Annual Environmental Report.



Comhairle Contae Fhine Gall
Fingal County Council

Annual Environmental Report

For

Greater Dublin Area Agglomeration,

Fingal Section

Waste Water Discharge Licence No.
D0034-01

2010

Table of Contents

1	Introduction	3
2.	Summary of Monitoring Reports	
2.1	Summary Table of Influent Monitoring	4
2.2	Discharges from the agglomeration	4
2.3	Ambient Monitoring Summary	4
	Marine Institute Sampling Results	4
	Location Map of Marine Institute Sampling locations	5
2.4	Data Collection and Reporting requirements under the Urban Waste Water Treatment Directive	5
2.5	Pollutant Release and Transfer Register	5
2.6	PRTR – Proposal for current year	5
3.	Complaint and Incident Reports	
3.1	Complaints Summary	6
3.2	Reported Incidents	7
4.	Infrastructural assessments and Programme of Measures	
4.1	Treatment Capacity	7
4.2	Storm water overflow identification and inspection report	7
4.3	Report on progress made and proposals being developed to meet the improvements programme requirements	8
5.	Environmental Liability and Financial Provisions	
5.1	Annual Statement of measures	8
6.	Licence Specific Reports	
6.1	Predicted impacts Report	8
6.2	Assessment of predicted impacts on habitats	9
6.3	Development infrastructural works summary	9
6.4	Toxicity report	9
6.5	Environmental Liabilities Risk assessment	9
7.	Certification by Director of Services	10

1 Introduction

The Greater Dublin Area Agglomeration includes all of the geographical area of Dublin City Council and parts of Fingal County Council functional area, South Dublin County Council functional area, Dun Laoghaire Rathdown County Council functional area and Meath County Council functional area. The agglomeration is served by one waste water treatment plant (WWTP) at Ringsend (Ringsend Treatment Works) close to Dublin City centre. The Greater Dublin Area agglomeration is the largest agglomeration in Ireland; the measured population equivalent (p.e.) loading received at the WWTP in 2007 was 2.871 million. The existing WWTP has a design load capacity of c. 1.64 million p.e.

Dublin City Council applied for a Waste Water Discharge Licence (WWDL) for the agglomeration under the Waste Water Discharge (Authorisation) Regulations (S.I. 684 of 2007). The Licence, D0034-01, was issued by the EPA on 27th July 2010.

Condition 6.10 of the Licence requires an Annual Environmental Report (AER) covering the previous calendar year to be submitted to the EPA, by the 28th February of each year.

This AER has been prepared for Fingal County Council's portion of the Agglomeration for the period 1st Jan 2010 to 31st Dec 2010 in accordance with Condition 6.10 and Schedule D of the Licence, and in accordance with the "Guidance on the Preparation & Submission of the Annual Environmental Report (AER) for Waste Water Discharge Licences", Issue No. 1, Rev No. 1, as issued by the EPA 22/12/2010.

2. Summary of Monitoring Reports

2.1 No influent monitoring was carried out in Fingal portion of agglomeration.

2.2 Discharges from the Agglomeration

No monitoring of secondary discharges was carried out or is required. (Schedule B.2 of the Licence)

2.3 Ambient Monitoring Summary

There was no ambient monitoring carried out by Fingal County Council in 2010. Below are the results of the ambient monitoring carried out by the EPA in the area.

Station	Location	Survey Date	Depth of Bed	Sample Depth	Secchi	Salinity	Temp	DO Saturation	BOD
DB710	CASANA ROCK HOWTH HEAD	07/09/2010	14.9	14.3		33.91	15.08	99.2	FALSE
DB710	CASANA ROCK HOWTH HEAD	12/07/2010	28	27	4.0	34.04	14.35	100.1	FALSE
DB710	CASANNA ROCK HOWTH HEAD	27/05/2010	26	25.4	3.0	33.62	11.98	108	FALSE
DB710	CASANA ROCK HOWTH HEAD	01/02/2010	27.6	27.2	1.1	33.29	5.81	97.1	FALSE
DB710	CASANA ROCK HOWTH HEAD	07/09/2010	14.9	0		33.89	15.18	102.1	FALSE
DB710	CASANA ROCK HOWTH HEAD	12/07/2010	28	0	4.0	34.02	14.74	104.2	FALSE
DB710	CASANNA ROCK HOWTH HEAD	27/05/2010	26	0	3.0	33.6	12.08	106.7	FALSE
DB710	CASANNA ROCK HOWTH HEAD	01/02/2010	27.6	0	1.1	33.28	5.8	97.9	FALSE
DB730	IRELAND'S EYE	07/09/2010	27	25.8	2.1	33.9	15.07	97.6	TRUE
DB730	IRELAND'S EYE	12/07/2010	27	27	4.0	34.03	14.35	99.7	TRUE
DB730	IRELAND'S EYE	27/05/2010	26.1	25.9	3.0	33.62	11.98	108.5	TRUE
DB730	IRELAND'S EYE	01/02/2010	28	27.1	1.6	33.27	5.77	96.8	FALSE
DB730	IRELAND'S EYE	07/09/2010	27	0	2.1	33.79	15.31	102.1	TRUE
DB730	IRELAND'S EYE	12/07/2010	27	0	4.0	33.97	15.08	104.6	FALSE
DB730	IRELAND'S EYE	27/05/2010	26.1	0	3.0	33.59	12.22	11.2	TRUE
DB730	IRELAND'S EYE	01/02/2010	28	0	1.6	33.27	5.78	98.1	TRUE

Note: TRUE indicates that a BOD sample was taken, but the result is not available yet. FALSE indicates that there was no sample taken.

The location of the sampling stations is also given below.



The sample results were compared to the requirements of the Bathing Water Quality Regulations S.I. 79 of 2008, European Communities (Quality of Shellfish Waters) Regulations S.I. 268 of 2006 and the European Communities Environmental Objectives (Surface Water) Regulations S.I. 272 of 2009. The results of the testing as shown above indicate that the secondary discharges from the agglomeration are not affecting the ambient waters.

2.4 Data Collection and Reporting requirements under the Urban Waste Water Treatment Directive.

No samples of the secondary discharges were taken. Fingal County Council has sent the Urban Waste Water Treatment Returns for the Fingal area to the EPA on 17th Feb 2010.

2.5 Pollutant Release and Transfer Register

Not necessary for the Fingal portion of the agglomeration.

2.6 PRTR – proposal for current year.

Not necessary for the Fingal portion of the agglomeration.

3 Complaint and Incident Reports

3.1 Complaints Summary

Date	Name of complainant	Nature of complaint	Response to complainant	Closed?
21/1/2010	Anonymous	Sewage in stream, bad smell in Sandpits, Carpenterstown, D15	Checked stream, local pumping station. No sewage problem.	Yes
4/2/2010	C McGuire DCC Drainage Inspector	Sewage overflowing m/h, Airways Ind. Est., Santry	Sewer choke, cleared by Drainage Operations.	Yes
8/2/2010	Lisa Maher, EPA	Chemical spill at Helsinn Chemicals, Damastown	Site inspected, minimal impact on river all surface water drains closed off.	Yes
22/2/2010	Anonymous	Green liquid discharging to lake, Santry demesne	Traced Dye testing to Agri Energy Services, St Anne's Cloghran.	Yes
26/2/2010	Frank Rooney, FCC Inspector	Sewage overflow from private pumping station, Blackwood Lane, Portmarnock.	FR met pump engineers on site, repairing pumps	Yes
3/3/2010	Frank Rooney, FCC Inspector	Sewage in stream at Blackwood Lane, Portmarnock.	Issued warning letter and S12 Notice to Bovale Developments. Works carried out as requested.	Yes
7/4/2010	-	Sewage discharging down steps from Dunbo Hill to lower Road, Howth	Drainage Ops on scene on 3rd April - sewer choke passed to Housing department - cleared up.	Yes
3/5/2010	Out-of-hours number	Oil pollution in lake at Blanchardstown IT.	Checked site called Drainage Ops to provide booms and pads to absorb oil. Contacted DSPCA to remove 2 swans from the lake which were covered in oil. All surface water drains were checked, no evidence of oil discharged through network. Appears to have been dumped into	Yes

			lake. PWS hired to remove oil from lake and remediate banks.	
10/5/2010	FCC Parks Dept	Parks informed us that there was diesel oil discharging to Tolka from SW culvert at Shanty Pub, Mulhuddard since 10th	Investigated SW upstream of culvert unable to locate source. Drainage Ops placed booms and pads in Tolka to trap remaining oil. Follow up investigation unable to establish source. Clear on 13th	Yes
24/5/2010	Water Services, FCC	Complaint made to Flanning relating to smell in stream at Fosterstown North, Sworcs.	Checked site on 28th May unable to get sample and there was no smell of sewage from stream. Sampled on 8th June. Awaiting results. Results show no pollution	Yes
29/6/2010	Tolka Anglers	Sewer overflowing from MH on slip road to Mulhuddard from N3.	Sewerage overflowing into road and into SW system via road gully. This SW drains to Tolka. Notify Drainage Ops, choke cleared 30th June.	Yes

3.2 Reported Incidents

There were no incidents to be reported in the Fingal portion of the agglomeration.

4. Infrastructural Assessments and Programme of Measures

4.1 Treatment Capacity

Not relevant to the Fingal portion of the agglomeration.

4.2 Storm Water overflow identification and inspection report

Not due for submission until the second AER.

4.3 Report on progress made and proposals being developed to meet the improvements programme requirements

The discharge from the Nose of Howth, secondary discharge point S5Fingal, ceased on 27th October 2010. The sewerage is now being directed to the Sutton P.S. for transfer and treatment in the Ringsend WWTP. As part of these works, Storm Water Overflow Fingal-SW48-Howth, at the junction of Abbey St and Harbour Road in Howth, was blocked up and is no longer in operation.

The discharge into Doldrum Bay, secondary discharge point S4Fingal, has not ceased and will not cease by 31st December 2011. Funding for the construction of the scheme, estimated at €1.5m, was not included in the Water Services Investment Programme (WSIP) 2010-2012. However, it has been approved to move to planning stage under the Portmarnock Drainage Scheme in the 2010-2012 WSIP.

5. Environmental Liability and Financial Provisions

5.1 The following are a list of the measures taken to prevent environmental damage in the Fingal portion of the Greater Dublin Area Agglomeration:

- a) Fingal County Council employs a Water Services Operational Section with a staff of 51 to maintain and service the sewer network.
- b) Fingal County Council employs a Mechanical Section to maintain and service the pump stations in the agglomeration and the Telemetry system which monitors them.
- c) Fingal County Council maintains an out-of-hours capability for dealing with mechanical breakdowns and sewer chokes/environmental incidents.

Fingal County Council does not maintain a specific financial provision in relation to underwriting of costs for remedial action following environmental incidents.

6. Licence Specific Reports

6.1 Predicted impacts Report

Not required in the Fingal County Council area under this licence.

6.3 Development infrastructural works summary.

Please see 4.3

6.4 Toxicity report

Not required in the Fingal County Council area under this licence.

6.5 Environmental Liabilities Risk assessment

Not required until July 2011

7.0 Certification

I hereby certify that this Annual Environmental Report for the Fingal portion of the Greater Dublin Area Agglomeration, Waste Water Discharge Licence No. D0034-01, for 2010 is representative and accurate.


Gerry Duane,
Director of Services,
Water Services, Fingal County Council.

Annual Environmental Report, South Dublin County Council

South Dublin County Council

Annual Environmental Report

For

EPA Waste Water Treatment Discharge License Reg no :

<http://www.epa.ie/terminalfour/wwda/wwda-view.jsp?regno=D0034-01>

February 2011

Table of Contents

Section	Title	Page
1	Introduction	
2	Discharge from Agglomeration	
3	Influent Monitoring	
4	Data Collection and Reporting Requirements under the Urban Waste Water Treatment Directive	
5	Complaints Summary	
6	Pollutant Release and Transfer Register – report for previous year	
7	Pollutant Release and Transfer Register – proposal for current year	

8	Ambient Monitoring	
9	Storm Water overflow identification and inspection report	
10	Reported incidents	
11	Improvement Programme	
12	Predicted Impacts Report	
13	Development / Infrastructure Works	
14	Statement of Measures	
15	Predicted Impact Assessment	
16	Approval	

Introduction

South Dublin County Council Agglomeration –

Ringsend Waste water Treatment Works –

D0034-01

The Drainage Maintenance and Operations Section is based at Deansrath Depot, Clondalkin. This Section is responsible for the South Dublin County Council Drainage System which comprises approximately 1,400 km of foul and surface water public sewers.

The Section is responsible for all Drainage Pumping Stations within the county.

Stations/Siphon Chambers. There are presently 22 Drainage Pumping Stations within the county;

Existing Drainage Pumping Stations	Type
Ard Mor	Submersible-Control Room
Ballmanagin Pumping Station	Submersible-Control Room
Belgard Fire Station Pumping Station	Submersible-Control Room
Dangan Park Pumping Station	Submersible-Kiosk

Esker Pumping Station	Drywell
Grangecastle Pumping Station	Drywell
Johnstown (Palmerstown) Pumping Station	Drywell
Kings Hospital Pumping Station	Submersible-Control Room
Kishogue Pumping Station	Submersible-Control Room
Lucan Low Level Pumping Station	Drywell
Lucan Spa Pumping Station	Submersible-Control Room
Lynch's Lane Pumping Station	Submersible-Control Room
Newcastle Ejector Pumping Station	Submersible-Control Room
Newcastle Pumping Station	Drywell
Perrystown/Kimmage Storm Tank	Submersible-Kiosk
Quarryvale Pumping Station	Drywell
Rathcoole Pumping Station	Submersible-Control Room
Tay Lane (Commons) Pumping Station	Submersible-Kiosk
Spawell Pumping Station	Submersible-Kiosk
St. Brigid's Cottages Pumping Station	Submersible-Control Room
Whitehall Pumping Station	Submersible-Control Room
College Green	Submersible-Control Room
Tobermaclugg	Drywell

With a further 2 proposed at

Future Drainage Pumping Stations	Type
Garter Lane (Saggart) Pumping Station	Submersible-Kiosk
Peamount Pumping Station	Drywell

There are also 5No. siphon chambers (4No. are on the Dodder Valley Sewer Line – 2No. of which are in the Dun Laoighaire Rathdown County Council jurisdiction - Belfield and Milltown. These are owned by SDCC but maintained by agreement by DLRDCC).

The siphon chamber at the Liffey in Lucan has a muncher unit which “chops up” all rags, cloths etc before entering the siphon.

The Saggart flowmeter is located on the site of the old Saggart Sewerage Treatment Works, and is merely for flow monitoring purposes on that sewer main.

Other:	
<i>Belfield (UCD) Siphon Chamber</i>	<i>Dodder Valley Line (DLR)</i>
Kilvere (Tempelogue) Siphon Chamber	Dodder Valley Line
<i>Milltown Siphon Chamber</i>	<i>Dodder Valley Line (DLR)</i>
Owendoher Siphon Chamber	Dodder Valley Line
St. Ed's (Lucan)	Muncher Unit at Liffey Siphon
Saggart Flowmeter Chamber	Flowmeter Chamber

South Dublin County Council sewerage network has a total of 28 Overflows. 13 of these are associated with Pumping Stations and other infrastructure and strictly speaking are not for the purposes of relieving the system of excess stormwater flows, but rather are emergency overflows that would become active only in the event of a catastrophic failure of the pumping station. Pumping Stations, Siphons and Overflow Points

No	Pumping Stations	Overflow	Comments
SDCCPS01	Lucan Spa PS	SDCCPS01a	Emergency
SDCCPS02	Lucan Low Level PS	SDCCPS02a	Emergency
SDCCPS03	Esker PS	SDCCPS03a	Emergency
SDCCPS04	Quarryvale PS	SDCCPS04a	Emergency
SDCCPS05	Johnstown PS	SDCCPS05a	Emergency
SDCCPS06	Grange Castle PS	SDCCPS06a	Emergency
		SDCCPS07a	Emergency
SDCCPS07	Ballymanagan PS	SDCCPS07b	
SDCCPS08	Peamount PS	SDCCPS08a	Emergency
SDCCPS09	Newcastle PS	SDCCPS09a	Emergency
SDCCPS10	Tay Lane PS	SDCCPS10a	Emergency
SDCCPS11	Whitehall PS	SDCCPS11a	Emergency
SDCCPS12	Spawell PS	N/A – 3 Dwellings	3 Dwellings
SDCCPS13	King's Hospital PS	N/A	
SDCCPS14	Lynches Lane PS	N/A – Halting	Halting Site – New PS

		Site	under construction
SDCCPS15	Kishogue PS	N/A – Halting Site	Halting Site
SDCCPS16	St Brigids PS	N/A – 6 Dwellings	6 Dwellings
SDCCPS17	Belgard PS	N/A – Fire Station	Fire Stn
SDCCPS18	Fortunestown PS	N/A	
SDCCPS19	College Drive	N/A	Private
SDCCPS20	Dangan Park PS	Surface Water	S/W only
SDCCPS21	Tobermaclugg		Under Construction

Siphons

SDCCSN01	Lucan Siphon (Liffey) - St Eds Muncher	SDCCSN01a	Emergency
SDCCSN02	Templeogue Siphon (Dodder)	N/A	
SDCCSN03	Owendoor Siphon	N/A	
Ref DLRDCC	UCD (Belfield) Siphon	DLRDCC	DLRDCC
Ref DLRDCC	Ringsend Siphon	DLRDCC	DLRDCC

Overflows

Ref DLRDCC	Milltown Overflow	DLRDCC	DLRDCC
SDCCSWO01	Perrystown Tank	SDCCSWO01	Emergency
SDCCSWO02	Treepark Road	SDCCSWO02	
SDCCSWO03	Airton Road	SDCCSWO03	
SDCCSWO04	Avonmore Road	SDCCSWO04	

	SDCCSWO05	Brookfield Cottage	SDCCSWO05a
Section 2			SDCCSWO05b
	SDCCSWO06	Harris Trucks	SDCCSWO06
	SDCCSWO07	St Peter's Road	SDCCSWO07
	SDCCSWO08	Castle View Road	SDCCSWO08
	SDCCSWO09	Aylmer Road	SDCCSWO09
	SDCCSWO10	Kimmage Road West	SDCCSWO10
	SDCCSWO11	Springfield Avenue	SDCCSWO11
	SDCCSWO12	Loretto Terrace	SDCCSWO12
	SDCCSWO13	Oldcourt Manor	SDCCSWO13
	SDCCSWO14	Stewarts Hospital	SDCCSWO14

Discharges from the Agglomeration

South Dublin County Council has no primary discharges, all public Wastewater Treatment Systems have been decommissioned and all Wastewater Discharges to Ringsend WWTP, operated and monitored by Dublin City Council.

Section 3

Summary Report on Influent Monitoring

South Dublin County Council, whilst it carries out monitoring at transboundary locations between South Dublin and Dublin City, does not carry out influent monitoring with regard to Ringsend WWTP.

Section 4

Data Collection and Reporting Requirements for the Urban Waste Water Treatment Directive.

Section 5

Complaints Summary

As per condition 6.5 of it's license, South Dublin County Council will record in accordance with the National Environmental Complaints Procedure all complaints of an environmental nature relating to the discharge(s) to waters from the waste water works.

There were no complaints received during the first AER report -----

Section 6

Pollutant Release and Transfer Register

Report for 2010

South Dublin County Council does not have any primary discharges in the County

The Primary discharge is monitored by Dublin City Council

Section 7

Pollutant Release and Transfer Register

Proposed for 2011

South Dublin County Council does not have any primary discharges in the County. The Primary discharge is monitored by Dublin City Council

Section 8

Ambient Monitoring

N/A – The receiving waters are monitored by Dublin City Council

Section 9

Storm Water Overflows Identification and Inspection Report

A programme of inspections and surveys is being scheduled for March / April 2011 to examine each overflow with a view to upgrading and remediation.

No	Pumping Stations	Overflow	Comments
SDCCPS01	Lucan Spa PS	SDCCPS01a	Emergency
SDCCPS02	Lucan Low Level PS	SDCCPS02a	Emergency
SDCCPS03	Esker PS	SDCCPS03a	Emergency
SDCCPS04	Quarryvale PS	SDCCPS04a	Emergency
SDCCPS05	Johnstown PS	SDCCPS05a	Emergency
SDCCPS06	Grange Castle PS	SDCCPS06a	Emergency
		SDCCPS07a	Emergency
SDCCPS07	Ballymanagan PS	SDCCPS07b	
SDCCPS08	Peamount PS	SDCCPS08a	Emergency
SDCCPS09	Newcastle PS	SDCCPS09a	Emergency
SDCCPS10	Tay Lane PS	SDCCPS10a	Emergency
SDCCPS11	Whitehall PS	SDCCPS11a	Emergency
SDCCPS12	Spawell PS	N/A – 3 Dwellings	3 Dwellings
SDCCPS13	King's Hospital PS	N/A	
SDCCPS14	Lynches Lane PS	N/A – Halting Site	Halting Site – New PS under construction
SDCCPS15	Kishogue PS	N/A – Halting Site	Halting Site
SDCCPS16	St Brigids PS	N/A – 6 Dwellings	6 Dwellings
SDCCPS17	Belgard PS	N/A – Fire Station	Fire Stn
SDCCPS18	Fortunestown PS	N/A	
SDCCPS19	College Drive	N/A	Private
SDCCPS20	Dangan Park PS	Surface Water	S/W only

SDCCPS21	Tobermaclugg		Under Construction
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Siphons

SDCCSN01	Lucan Siphon (Liffey) - St Eds Muncher	SDCCSN01a	Emergency
SDCCSN02	Templeogue Siphon (Dodder)	N/A	
SDCCSN03	Owendoor Siphon	N/A	
Ref DLRDCC	UCD (Belfield) Siphon	DLRDCC	DLRDCC
Ref DLRDCC	Ringsend Siphon	DLRDCC	DLRDCC

Overflows

Ref DLRDCC	Milltown Overflow	DLRDCC	DLRDCC
SDCCSWO01	Perrystown Tank	SDCCSWO01	Emergency
SDCCSWO02	Treepark Road	SDCCSWO02	
SDCCSWO03	Airton Road	SDCCSWO03	
SDCCSWO04	Avonmore Road	SDCCSWO04	
SDCCSWO05	Brookfield Cottage	SDCCSWO05a	
		SDCCSWO05b	
SDCCSWO06	Harris Trucks	SDCCSWO06	
SDCCSWO07	St Peter's Road	SDCCSWO07	
SDCCSWO08	Castle View Road	SDCCSWO08	
SDCCSWO09	Aylmer Road	SDCCSWO09	
SDCCSWO10	Kimmage Road West	SDCCSWO10	
SDCCSWO11	Springfield Avenue	SDCCSWO11	
SDCCSWO12	Loretto Terrace	SDCCSWO12	

SDCCSWO13	Oldcourt Manor	SDCCSWO13
SDCCSWO14	Stewarts Hospital	SDCCSWO14

Section 10

Reported Incidents

An incident is defined in the license as

- (1) Any discharge that does not comply with the requirements of this license and,
- (2) Any incident with the potential for the contamination of surface water or ground water, or posing an environmental threat to land, or requiring an emergency response by the relevant Water Services Authority.

Section 11

Improvements Programme

Pump Station	Description of Works	Benefits
Lucan Spa PS - Ongoing	Installation of Standby Generator (including extension to pump station to house generator)	Maintain pumping during mains power failure
Quarryvale PS - Ongoing	Upgrade of pump station. Replacement of pumps, installation of control room, new electrical panels, penstocks, inlet flowmeter, staircase, gas detection, lift equipment, air extraction.	More reliable pumping. Original pumps date back to 1984.
Lucan Low Level PS - Ongoing	Installation of Pump 3 (Chopper Type Pump).	Help prevent clogging at Lucan Low Level & Esker (as L.L.L. pumps directly into Esker).
Newcastle PS - Ongoing	Installation of Pump 3 (Chopper Type Pump).	Help prevent pump clogging at Newcastle
Rathcoole PS - Ongoing	Replacement of Pumps 1 & 2 with Chopper pumps	Help prevent pump clogging at Rathcoole
Ballymanagan PS - Completed	Replacement of Pump 1 with Chopper pump	Help prevent pump clogging at Ballymanagan

Section 12

Predicted Impacts Report

Section 13

Development / Infrastructure Works

Pump Station	Description of Works	Benefits
Lucan Low Level PS - 2012	Installation of Pump 4 (Chopper Type Pump).	Help prevent clogging at Lucan Low Level & Esker (as L.L.L. pumps directly into Esker).
Newcastle PS - 2012	Installation of Pump 4 (Chopper Type Pump).	Help prevent pump clogging at Newcastle
Ballymanagan PS - 2012	Replacement of Pump 2 with Chopper pump	Help prevent pump clogging at Ballymanagan
St Brigid's Cottages PS - 2012	Replacement of Pumps 1 & 2 with Chopper pumps	Help prevent pump clogging at St Brigid's

Section 14

Statement of Measures

Section 15

Predicted Impacts Assessment

Annual Environmental Report
For
Greater Dublin Area Agglomeration
Dun Laoghaire Rathdown Section
Waste Discharge Licence No D0034-01
2010

Table of Contents

1	Introduction	3
2	Summary of Monitoring Reports	3
	2.1 Influent Monitoring	3
	2.2 Discharges from the Agglomeration	3
	2.3 Ambient Monitoring Summary	3
	2.4 Data Collection and Reporting Requirements under the Urban Waste Water Treatment Directive	3
	2.5 Pollutant Release and Transfer Register	3
	2.6 PRTR –Proposal for current year	3
3	Complaint and Incident Reports	
	3.1 Complaints Summary	4
	3.2 Reported Incidents	5
4	Infrastructural Assessments and Programme of Measures	
	4.1 Treatment Capacity	5
	4.2 Stormwater Overflow Identification and Inspection Report	5
	4.3 Report on progress made and proposals being developed to meet the improvements programme requirements.	5
5	Environmental Liability and Financial Provisions	
	5.1 Annual Statement of Measures	6
6	Licence Specific Reports	
	6.1 Predicted Impacts Report	7
	6.2 Assessment of predicted impacts on habitats	7
	6.3 Development infrastructural works summary	7
	6.4 Toxicity Report	7
	6.5 Environmental Liabilities Risk Assessment	7
7	Certification by Director of Services	8

1 Introduction

The Greater Dublin Area Agglomeration includes all the geographical area of Dublin City Council and parts of Fingal County Council functional Area, South Dublin County Council functional area and Dun Laoghaire Rathdown County Council area. This AER relates to Dun Laoghaire Rathdown's responsibilities under the licence for the period 1st January 2010 to 31st December 2010 in accordance with Condition 5.1 of the licence.

2 Summary of Monitoring Reports

2.1 No influent monitoring is required to be carried out by Dun Laoghaire Rathdown County Council in the Licence.

2.2 Discharges from the Agglomeration

No monitoring of discharges from the agglomeration is required to be carried out by Dun Laoghaire Rathdown County Council in the Licence.

2.3 Ambient Monitoring Summary

No ambient monitoring is required to be carried out by Dun Laoghaire Rathdown County Council in the Licence.

2.4 Data Collection and reporting requirements under the Urban Waste Water Treatment Directive

Dun Laoghaire Rathdown County Council is not required to submit returns for the agglomeration in this licence under the Urban Waste Water Treatment Directive.

2.5 Pollutant Release and Transfer Register

Not necessary for the Dun Laoghaire portion of the agglomeration.

2.6 PRTR – proposal for the current year.

Not necessary for the Dun Laoghaire portion of the agglomeration.

3 Complaints and Incident Report

Date	Name of Complainant	Nature of Complaint	Response to Complainant	Closed?
16/7/10	Mr Chris Murray and EPA	Overflow to sea from West Pier Pump Station	Letter written explaining the operation of the Pump Station and its capacity.	Yes
27/7/10	Elizabeth Mulville	Telephone complaint about sewage in the seawater at Seapoint	Telephone call explaining the operation of the West Pier Pump Station, the Overflow and the electronic message board.	Yes
31/7/10	Ms. Nuala Harris	Sewage at sea, Scafort Parade Blackrock	Caused by a CSO coming into operation. Samples taken. The sewer was approx 40% silted up downstream of the overflow. The sewer was comprehensively jet-vacced. A number of emails were written.	Yes
6/8/10	Dr Charles Dupont	Sewage at sea at Idrone Terrace, Blackrock	Caused by a CSO coming into operation. Samples taken. The problem was caused by a lack of capacity downstream of the CSO. A number of emails were written.	Yes
23/9/10 10/10/10 12/10/10	Mr Chris Murray and EPA	Overflow from West pier Pump Station. No message displayed on the electronic notice board.	Letter written explaining the operation of the Pump Station and its capacity. Operation of the message board corrected.	Yes

3.2 Reported Incidents

There were no incidents to be reported in the Dun Laoghaire portion of the agglomeration.

4 Infrastructural Assessments and Programme of Measures

4.1 Treatment Capacity

Not relevant to the Fingal portion of the agglomeration.

4.2 Storm Water overflow identification and inspection report.

Due for submission with the second AER.

4.3 Report on progress made and proposals being developed to meet the improvements programme requirements.

No required improvements identified in the licence for Dun Laoghaire Rathdown County Council.

5 Environmental Liability and Financial Provisions

5.1 The following is a list of ongoing Measures in the Ringsend Catchment:

1. The Greater Dublin Strategic Drainage Study prepared a report on the West Pier East and West Catchments. A more detailed study was carried out on the West Pier East Catchment.
2. Tenders received for the construction of the Temporary Glasthule Drainage Relief Scheme.
3. Study report on the Glasthule Permanent Surface Water Separation Scheme due in early April.
4. On going monitoring and sampling on all surface water rivers throughout the catchment.
5. Section 16 FOG and Trade Effluent Licensing Programme (discharge conditions on industry using county foul sewers).
6. Sampling, Environmental Inspections, Breach Investigation and Incident Investigations on the County's foul sewer network.
7. Professional Working relationship with Eastern River Fisheries Board(ERFB)
8. Comprehensive Bathing Water and Coastal monitoring Programme and sampling all year round.
9. CSO Monitoring Programme (Alarming of Overflows in County)
- 10.SUDS are a requirement of Development Plan.
- 11.Programme of Measures above also listed in the ERBD Plan 2009 under Water Framework Directive.
- 12.Involvement with the ERBD Liaison Group and the regional ERBD Senior Management Meetings.

Dun Laoghaire Rathdown County Council has been in discussions with the Irish Public Bodies in regard to the provision of insurance under the Environmental Liability Directive.

6 Licence Specific Reports

6.1 Predicted Impacts Reports

Not required in the Dun Laoghaire Rathdown County Council area under this licence.

6.2 Assessment of predicted impacts on habitats

Not required in the Dun Laoghaire Rathdown County Council area under this licence.

6.3 Development infrastructural works summary

Not required in the Dun Laoghaire Rathdown County Council area under this licence.

6.4 Toxicity Report

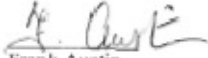
Not required in the Dun Laoghaire Rathdown County Council area under this licence.

6.5 Environmental Liabilities Risk Assessment

Not required in the Dun Laoghaire Rathdown County Council area under this licence.

7.0 Certification

I hereby certify that this Annual Environmental Report for the Dun Laoghaire Rathdown portion of the Greater Dublin Area Agglomeration Wastewater discharge Licence No D0034-01 for 2010 is representative and accurate.



Frank Austin
Director of Services, Water Services
Dun Laoghaire Rathdown County Council



comhairle chontae na mí
meath county council

Ringsend Waste Water Works



Annual Environmental Report

(Prepared by Joint licensee Meath County Council)

for

EPA Waste Water Discharge Licence D0034-01

27/07/2010 to 31/12/2010

Table of Contents

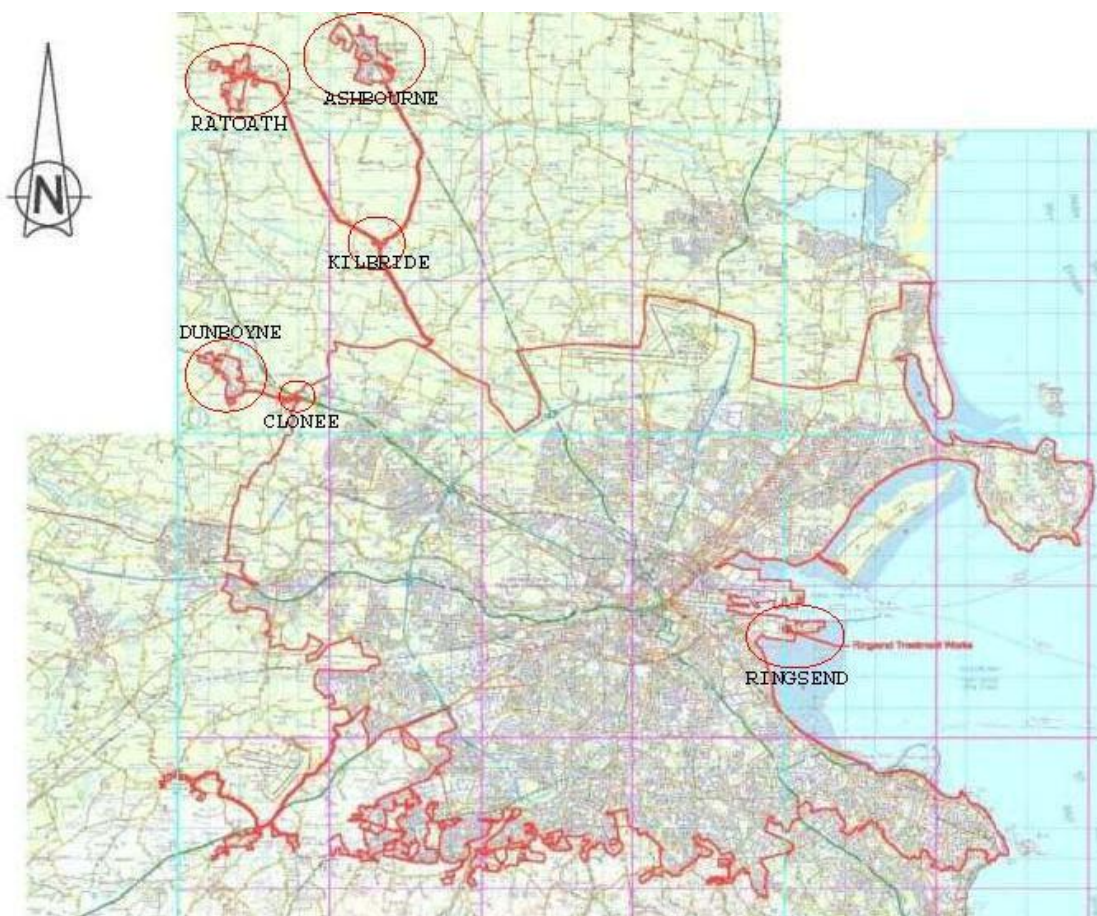
<u>Section</u>	<u>Title</u>	<u>Page</u>
1.0	Introduction	
	1.1 Introduction	3
2.0	Summary of Monitoring Reports	
	2.1 Flow Report	5
	2.2 Current Loading	5
3.0	Complaints and Incidents Reports	
	3.1 Complaints Summary	7
	3.2 Summary of Reported Incidents	7
4.0	Infrastructural Assessment & Programme of Improvements.	
	4.1 Storm Water Overflow Identification and Inspection.	9
	4.2 Improvement Programme.	9
	4.3 Development/Infrastructure Works.	9
5.0	Licence Specific Reports.	
	5.1 Statement of Measures.	11
	5.2 Environmental Liabilities and Risk Assessment (ELRA) Report.	11
6.0	Pollution Release and Transfer Register (PRTR) -Reporting Workbook.	
	6.2 PRTR for 2010.	13
7.0	Approval.	
	7.1 Approval	15

Section 1: Introduction.

Meath County Council discharges waste water from Dunboyne, Clonee, Ashbourne, Ratoath and Kilbride into the Greater Dublin Area Agglomeration. For this reason it is joint licensee with Dublin City Council on EPA Waste Water Discharge licence D0034-01.

Waste water from Ratoath and Ashbourne is pumped to Kilbride and from Kilbride it is pumped into the Dublin Network. Dunboyne is gravity fed to Clonee and from Clonee it is gravity fed into the Dublin Network. The combined flows from Kilbride Pumping Station and the Clonee gravity sewer make up the "Total Meath Flow". For the purpose of this Annual Environmental Report (AER) only the "Total Meath Flow" will be reported.

MAP 1: Waste water from County Meath into the Greater Dublin Network.



Section 2.1: Flow Report.

Start Date	End Date	Method	Days	Total Flow (m ³)	Storm Flow (m ³)*
01/07/10	31/12/10	Reading	184	848,282	84,828
27/07/10	31/12/10	Estimate	153	705,365	70,535
01/01/10	31/12/10	Estimate	365	1,682,733	168,273

*** Storm flows are estimated at 10% of the total influent flow.**

Please note:

For the purposes of the Ringsend AER, the flows from Ashbourne, Ratoath and Kilbride and Dunboyne / Clonee have been combined & designated as "Total Meath Flow".

The top line is actual (combined) flow data for the period 1st July 2010 to 31st Dec 2010.

Actual flow data is available for full year (based on quarterly adjusted figures) but MCC are only required to supply data from date of Licence (27th July 2010), hence the figure is from 27th July 2010 to 31st Dec 2010. Estimated total flow figure for the year is based on average combined daily flows of 4,610 cu.m, corresponding with this figure is on the bottom line.

The approximate breakdown is 1,200 cu.m/d from Dunboyne / Clonee and 3,400 cu.m/d from Ashbourne, Ratoath and Kilbride.

Section 2.2: Current Loading.

Average Daily Flow (m ³)	4,610
Estimated BOD (mg/l)	240
Capita Contribution (BOD/h/d)	60
Population Equivalent (p.e.)	18,440

Section 3.1: Complaints Summary.

There were no complaints recorded during the reporting period 27/07/10 to 31/12/10.

Section 3.2: Summary of Reported Incidents.

There were no incidents recorded during the reporting period 27/07/10 to 31/12/10.

Section 4.1: Storm Water Overflows Identification and Inspection Report

As per condition 4.12 of the licence the Storm Water Overflows Identification and Inspection Report is not relevant to the 2010 AER and will be addressed in the 2011 AER.

Section 4.2: Improvements Programme (as per Schedule C.3 of licence)

See Section 4.3 below.

Section 4.3: Development/Infrastructure Works.

During 2010 Meath County Council substantially completed a major upgrade project, the "Ashbourne / Ratoath / Kilbride Sewerage Scheme – Phase 2".

Under this project approximately €14m has been invested in a very substantial upgrade of the sewer networks in both Ashbourne and Ratoath and in pumping stations at Ashbourne, Ratoath and Kilbride. Substantial storm detention tanks have been constructed in both Ashbourne and Ratoath.

A pipeline rehabilitation contract valued at an estimated €3m is programmed to be awarded later in 2011. Under this contract extensive sewer network repairs will be undertaken which will help prevent both infiltration and hydraulic overloading.

In relation to Dunboyne and Clonee, Meath County Council does not have any plans to undertake any capital works.

**Section 5.1: Statement of Measures.
Environmental Liabilities Statement**

As per condition 7.2.1 of the licence, Meath County Council will provide an annual statement as to the measures taken or adopted in relation to the prevention of environmental damage.

Section 5.2: Environmental Liabilities and Risk Assessment (ELRA) Report.

As per condition 7.2.2 of the licence, Meath County Council will cooperate with the lead licensee (Dublin City County Council) in the preparation of an Environmental Liabilities Risk Assessment (ELRA) to address the liabilities from the present or planned discharges of the Ringsend plant.

Section 6.1: Pollution Release and Transfer Register (PRTR).

The PRTR Report for 2010 will be prepared by Dublin City Council, the lead authority.

Section 7.0: Approval.

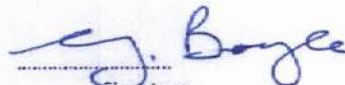
As per condition 6.11 of Discharge Licence D034-01, I certify the above report is true and accurate.

Approved by: Geraldine Cusack
(Executive Engineer)


Signature

18/04/11
Date

Approved by: Gerry Boyle
(Senior Engineer)


Signature

18/04/11.
Date