

SOUTH TIPPERARY COUNTY COUNCIL



CARRICK ON SUIR

WASTEWATER DISCHARGE LICENCE

REGISTER NUMBER D0148-01

ANNUAL ENVIRONMENTAL REPORT

1ST JANUARY 2013 to DECEMBER 31ST 2013

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1.0 INTRODUCTION and EXECUTIVE SUMMARY

1.1 Introduction

The Environmental Protection Agency on 20th December 2012 granted South Tipperary County Council a Wastewater Discharge Licence (Register No D0148-01) in respect of the agglomeration named Carrick-on-Suir. One of the provisions of the licence (Condition 6.8) is that the Council submit to the Agency on an annual basis an 'Annual Environmental Report' (AER) to provide a summary of activities relevant to the discharges for that year. This is the second Annual Environmental Report (AER) for the Carrick-on-Suir Wastewater Treatment Plant and includes the information specified in Schedule D of the licence.

This AER has been prepared in accordance with the Environmental Protection Agency (EPA) document: - "Guidance on the Preparation & Submission of the Annual Environmental report (AER) for Waste Water Discharge Licences for 2013"

The Carrick-on-Suir Wastewater Treatment Plant is located at Ballylynch Lower to the east of Carrick-on-Suir town and is designed to serve a p.e of 11,000. The present WWTP was first put into service in 2005. It operates an activated sludge process followed by final settlement and includes screening, grit removal and phosphorus removal. The plant also operates a sludge treatment facility consisting of sludge thickening and dewatering.

The wastewater from the agglomeration is collected by a series of six interconnecting pumping stations. These pumping stations, together with the gravity sewer network and rising mains deliver sewage to the WWTP. Approximately 85% of the wastewater arising in the agglomeration is domestic in origin. The primary discharge occurs into the River Suir (SWOO1) and is located at 242255E, 121343N. There are no secondary discharges from the agglomeration.

The report presented below details the monitoring reports for influent and effluent loading at the WWTP along with the ambient upstream and downstream monitoring of the receiving water.

1.2 Executive Summary

The Carrick-on-Suir wastewater treatment plant has continued to operate effectively in this reporting period. The treatment plant is operated and managed on behalf of South Tipperary County Council by AECOM Ltd under a 20 year DBO contract agreement.

A review of the final effluent results and compliance with the Emission Limit Values set out in licence shows that there was no exceedence of the ELV for BOD which had an average effluent value of 3.58 mg/l against an ELV of 15 mg/l while Suspended Solids and COD had effluent values of 6.17 mg/l and 19.25 mg/l against ELV's of 35 mg/l and 125 mg/l respectively. The average effluent value for Ammonia was 1.29 mg/l against an ELV of 5mg/l. The average effluent values for TN and TP were 7.83 mg/l and 0.41 mg/l against ELV limits of 15mg/l and 5 mg/l respectively.

The total flow for the year was 928,623 m³ while the current flow weighted average influent BOD to the plant is 122.5 mg/l giving a current pe loading of the plant of 5,194 pe. This compares with a plant design of 11,000 pe.

The average influent flow for the year was 2544 m³ /day against a plant design of 7,518 m³/day (at 3dwf) which indicates that the plant is operating within its hydraulic and treatment capacities.

A review of the ambient monitoring results for upstream and downstream of SW001 indicates that the discharge is having no adverse impact on the quality of the receiving waters.

The percentage reductions shown in the treatment efficiency report summary table No 6 show that reductions of 97%, 92% and 95% were achieved in BOD, COD and Suspended Solids respectively.

A reduction of 93% was achieved in the Ammonia levels while nutrient removal efficiencies for TP and TN were 89% and 67 % respectively.

An analysis and interpretation of the final effluent results is given in Section 2.2 of the report.

2.0 MONITORING REPORTS SUMMARY

2.1 Summary report on monthly influent monitoring

Table 1 below is a tabular presentation of the wastewater treatment plant influent monthly monitoring results for cBOD, COD, Suspended Solids, Total Nitrogen, Total Phosphorus, Ammonia and pH. Also set out below is the calculation of the pe equivalent load and flow weighted average BOD load for the WWTP.

Table 1: Waste water treatment plant influent monitoring results for 2013.

Date	Flow	BOD	COD	SS	TN	TP	Ammonia	pH
ELV		15 mg/l	125 mg/l	35 mg/l	15 mg/l	5 mg/l	5 mg/l	6 to 9
16/1/2013	4520	85	213	107	18.7	2.77	11.1	7.3
5/2/2013	4113	90	172	91	13.6	2.02	7.4	7.4
5/3/2013	1383	165	327	147	35.8	5.57	21.4	7.6
9/4/2013	2624	145	255	133	23.4	3.42	16.5	7.5
8/5/2013	3209	30	49	20	7.1	0.93	3.6	7.3
25/6/2013	1396	70	242	116	28.8	4.05	22.1	7.3
2/7/2013	1713	275	727	340	50.7	7.3	36.5	7.3
13/8/2013	1030	200	366	24	44	7.07	39.8	7.5
3/9/2013	1205	170	365	131	47.8	6.59	42	7.5
8/10/2013	2169	140	307	189	27.6	5.02	15.8	7.5
5/11/2013	3581	88	146	86	14.1	2.1	8.9	7.5
3/12/2013	1673	268	581	296	38.8	6.2	29.8	7.4
No of Samples	12	12	12	12	12	12	12	12
Annual Max	4520	275	727	340	50.7	7.3	42.0	7.6
Annual Mean	2385	143.8	312.5	140	29.3	4.42	21.2	7.4

Calculation of the Population Equivalent load to the WWTP

The total influent for the year 2013 was 928,623 m³. The average daily influent flow was 2,544 m³/day.

The flow weighted averaged influent BOD as calculated per Table 2 below is 122.5 mg/l

Carrick-on-Suir population equivalent was determined by the following formula:

Total Influent Flow for 2013 x flow-weighted averaged influent BOD divided by (0.06x365x1000).

Therefore the PE = (928,623 x 122.5) / (0.06 x 365 x 1000) = 5,194

Table 2: Calculation of the Flow weighted average BOD for 2013

Sample Date	Flow (m3/day)	cBOD (mg/l)	cBOD (Kg/day)
16/1/2013	4520	85	384.2
5/2/2013	4113	90	370.2
5/3/2013	1383	165	228.2
9/4/2013	2624	145	380.5
8/5/2013	3209	30	96.3
25/6/2013	1396	70	97.7
2/7/2013	1713	275	471.1
13/8/2013	1030	200	206.0
3/9/2013	1205	170	204.9
8/10/2013	2169	140	303.7
5/11/2013	3581	88	315.1
3/12/2013	1673	268	448.4
Totals	28616		3506.3

The Flow weighted average BOD is $3,506.3 \text{ Kg} \times 1000 / 28,616 \text{ m}^3 = 122.5 \text{ mg/l}$

2.2 Discharges from the agglomeration

Presented below in Tables 3 and 4 are the primary discharge point monitoring results for the parameters as set out in Schedule B of the licence and a summary of the effluent monitoring and overall compliance with the licence Emission Limit Values (ELV's)

Table 3: Tabular presentation of the wastewater treatment plant effluent monitoring results with the associated Emission Limit Values (ELV's)

	cBOD 5d with nitrification	Chemical Oxygen Demand	Suspended Solids	Ammonia Nitrogen	pH Unit	Total Phosphorus	Soluble Reactive Phosphorus	Total Nitrogen
ELV	15 mg/l	125 mg/l	35 mg/l	5 mg/l	6 to 9	5 mg/l	1.5 mg/l	15 mg/l
16/1/2013	2	15	3	0.8	7.7	0.16	0.09	5.4
29/1/2013								4.6
5/2/2013	2	15	6	2.6	7.5	0.11	0.04	5.9
19/2/2013								5.2
5/3/2013	2	15	4	1.3	7.5	0.12	0.04	7.7
26/3/2013								7.8
9/4/2013	6	24	8	4	7.6	0.24	0.08	8.6
23/4/2013								4.9
8/5/2013	8	18	9	1.7	7.5	1.04	0.78	5.2
21/5/2013								8.4
11/6/2013								9.2
25/6/2013	2	15	5	0.1	7.5	0.20	0.12	6
2/7/2013	6	25	7	4.4	7.7	1.67	1.52	11.4
16/7/2013								4.7
13/8/2013	2	18	3	0.1	7.7	0.33	0.19	16.6
27/8/2013								10.7
3/9/2013	2	19	5	0.1	7.7	0.3	0.14	13.9
17/9/2013								10.2
8/10/2013	4	24	8	0.1	7.2	0.23	0.03	5.6
22/10/2013								4.7
5/11/2013	2	15	5	0.1	7.4	0.19	0.03	6.2
19/11/2013								8.3
3/12/2013	5	28	11	0.2	7.4	0.31	0.03	9.4
18/12/2013								7.3
No of Samples	12	12	12	12	12	12	12	24
Annual Max	8	28	11	4.4	7.7	1.67	1.52	16.6
Annual Mean	3.58	19.25	6.17	1.29		0.41	0.26	7.83

Table 4: Summary of the Effluent Monitoring and Compliance

	cBOD	Chemical Oxygen Demand	Suspended Solids	Total Nitrogen	Soluble Reactive Phosphorus	Total Phosphorus	Ammonia	pH Unit
WWDL ELV	15 mg/l	125 mg/l	35 mg/l	15 mg/l	1.5 mg/l	5 mg/l	5 mg/l	6 to 9
No of sample results	12	12	12	12	12	12	12	12
No of sample results above ELV	0	0	0	1	1	0	0	0
No of sample results above ELV with Condition 2 interpretation	0	0	0	0	0	0	0	0
Overall Compliance	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass

Interpretation of results:

There were two exceedences during this reporting year. On 2/07/2013 the final effluent value for Soluble Reactive Phosphorus was 1.52 mg/l against an ELV of 1.5 mg/l. This was a marginal exceedence and was within the allowable range by interpretation of Condition 2 of the licence.

The second exceedence was on 13/08/2013 where the final effluent value for TN was 16.6 mg/l against an ELV of 15mg/l. This co-incident with relatively high TN influent loading to the plant . The value of 16.6 mg/l was within the allowable range by interpretation of Condition 2 of the licence.

2.3 Ambient monitoring summary

The ambient monitoring results for the parameters as set out in Schedule B of the licence is presented in Table No 6 (Upstream) and Table No 7 (Downstream) below. Also presented in Table 8 is a summary of the ambient monitoring. The monitoring results show that the discharge is not having any significant impact on the quality of the receiving water.

Table 6: Ambient monitoring at Asw-iu upstream of SW1 Carrick-on-Suir (E242120, N121370)

Sample date	Ammonia	BOD	DO	Ortho P	pH	Temp	TN	TP
24/01/2013	0.1063	1.01	11.74	0.03	7.846	5.4	1.9	0.08
20/02/2013	nt	0.51	11	0.03	8.056	8.2	4.7	nt
20/03/2013	0.0622	0.39	11.26	0.01	8.205	8.7	3	0.0391
17/04/2013	0.093	1.26	10.19	0.02	8.167	11.3	2.5	0.1
26/06/2013	0.06	1.48	10.23	0.06	8.07	16.1	5.1	0.52
17/07/2013	0.19	1.17	8.31	0.22	8.289	22.2	3.6	0.09
28/08/2013	0.04	1.46	8.71	0.021	8.03	16.2	1.8	nt
26/09/2013	0.18	1.02	8.64	0.044	8.08	15.8	nt	0.1
17/10/2013	0.02	1.89	9.28	0.059	7.73	12.4	4.3	0.15
19/11/2013	0.03	0.82	10.7	0.027	7.811	5.7	5.5	0.078
Annual Max	0.19	1.89	11.74	0.22	8.289	22.2	5.5	0.52
Annual Mean	0.09	1.1	10.01	0.052	8.03	12.2	3.6	0.17

Table 7: Ambient monitoring at Asw-Id downstream of SW1 Carrick-on-Suir (E242429, N121346)

Sample date	Ammonia	BOD	DO	Ortho P	pH	Temp	TN	TP
24/01/2013	0.142	0.87	11.83	0.02	7.897	5	0.9	0.09
20/02/2013	0.293	0.38	11.07	0.05	8.018	7.2	nt	nt
20/03/2013	0.0742	0.24	11.4	0.01	8.132	8	3.5	0.02
17/04/2013	0.2877	1.63	10.95	0.01	8.293	11.5	4.8	0.16
26/06/2013	0.05	4.54	11.82	0.2	8.412	11.3	8.3	0.25
17/07/2013	0.47	2.22	10.3	0.07	8.44	22	3.7	bld
28/08/2013	0.03	3.51	10.98	0.049	8.28	16.9	2.8	nt
26/09/2013	0.42	1.41	8.7	0.067	8.08	16.1	nt	0.14
17/10/2013	0.04	2.1	9.55	0.094	7.81	12.6	0.7	0.49
19/11/2013	0.05	0.34	11.88	0.048	7.878	6.9	4.6	Nt
Annual Max	0.47	4.54	11.88	0.2	8.44	22	8.3	0.49
Annual Mean	0.19	1.72	10.85	0.06	8.1	11.75	3.66	0.16

Table 8: Ambient Monitoring Summary Table

Ambient Monitoring Point from WWDL	Irish Grid Reference	EPA Feature Coding Tool code	Is discharge Impacting on water quality
aSW-IU upstream of SW1	242120 E, 121370 N	RS16S022950	No
aSW-ID downstream of SW1	242429 E, 121346 N	RS16S022960	No

Small Streams Risk Score (SSRS):

The SSRS is a biological assessment designed to detect potential sources of pollution to water courses and involves the identification and abundance of pollution sensitive and pollution tolerant macroinvertebrae. An SSRS for the Carrick-on-Suir agglomeration was not carried out in this reporting period as it was unsafe to enter the course of the River Suir.

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

It is confirmed that the annual urban wastewater information for agglomerations and treatment plants with a population equivalent greater than 500 for the year 2013 was submitted to the EPA in electronic form in the first quarter of 2014.

2.5 Pollutant Release and Transfer Register (PRTR)

The PRTR Emissions Data for 2013 for the Carrick-on-Suir Agglomeration has been submitted to the EPA. A copy of the PRTR Emissions Data has been printed and is attached in Appendix A of this report.

3.0 OPERATIONAL REPORTS SUMMARY.

3.1 Treatment Efficiency Report

Presented below in Table 9 is a summary of the efficiency of the treatment process including information for all the parameters specified in the licence.

Table 9: Treatment Efficiency Report Summary Table

	cBOD 5d with nitrification inhib Kg	Chemical Oxygen Demand (COD) Kg	Suspended Solids Kg	Ammonia Nitrogen (as N) Kg	Total Phosphorus (as P) Kg	Total Nitrogen (as N) Kg
Influent mass loading (Kg/day)	365.8	795	356	53.9	11.2	74.5
Effluent mass emission (Kg/day)	11	60	19	4	1.28	24.4
% Efficiency (% reduction of influent load)	97%	92%	95%	93%	89%	67%

3.2 Treatment Capacity Report

Presented below in table 10 is a summary of the current and remaining treatment capacity of the treatment process.

Table 10: Treatment Capacity Report Summary Table

Hydraulic Capacity – Design	7,518 m3/day @ 3dwf
Hydraulic Capacity – Current Loading	2,544 m3 / day
Hydraulic Capacity – Remaining	4,974 m3/ day
Organic Capacity – Design (pe)	11,000 pe
Organic Capacity – Current Loading (pe)	5,194 pe
Organic Capacity – Remaining (pe)	5,806 pe
Will the capacity be exceeded in the next 3 years	No

3.3 Complaints summary

There were no complaints of an environmental nature related to the discharge to water from the Carrick-on-Suir Wastewater treatment Plant in 2013

Table 11: Complaints

Number	Date and Time	Nature of Complaint	Cause of Complaint	Actions taken to resolve issue	Closed (Y/N)
N/A	N/A	None	None	N/A	N/A

3.4 Reported Incidents Summary

There were two recorded incidents in relation to the Carrick-on-Suir Wastewater Treatment Plant in 2013.

Table 12: Incidents Summary

Date and Time	Incident Description	Cause	Corrective Action	Authorities Contacted	Reported to EPA	Closed (Y/N)
2013	Exceedence in Soluble Reactive Phosphorus (1.52 mg/l)	High Influent TP	Process Monitoring	STCC	No – within allowable range	Yes
2013	Exceedence in TN (16.6 mg/l)	High Influent TN	Process Monitoring	STCC	No – within allowable range	Yes

Table 13: A summary of the incident details as required in the EPA reporting guidelines is set out below

No of Incidents in 2013	None
Number of Incidents reported to the EPA via EDEN in 2013.	None
Explanation of any discrepancies between the two numbers above.	Within allowable ranges by Interpretation of Condition 2 of the licence

4.0 INFRASTRUCTURAL ASSESSMENT & PROGRAMME OF IMPROVEMENTS

4.1 Storm Water Overflow Identification and Inspection Report

The following storm water overflows for the Carrick-on-Suir Agglomeration are set out in Schedule A3 of the discharge licence.

Storm Water Overflow's – Carrick-on-Suir

A.3.1 SWO's					
EDEN Code	Licence Code	Discharge Location	Storm Water Overflow Locations	Receiving Water	WFD Code Receiving Water
TPEFF2900D0148SW002	SW002	E240182, N121435	E240182, N121435	River Suir	SE_100_0600
TPEFF2900D0148SW002	SW003	E240790, N121820	E240790, N121820	River Suir	SE_100_0600
TPEFF2900D0148SW002	SW004	E239680, N121710	E239680, N121710	River Suir	SE_100_0600
TPEFF2900D0148SW002	SW005	E242250, N122480	E242250, N122480	River Suir	SE_16_4197
TPEFF2900D0148SW002	SW006	E239570, N121820	E239570, N121820	River Suir	SE_100_0600
TPEFF2900D0148SW002	SW007	E241722, N121565	E241722, N121565	River Suir	SE_100_0600

These storm water overflows are associated with the 6 No Pumping stations within the agglomeration.

There is also an overflow to the storm tank at the WWTP. This overflow is through the primary discharge point SW001. The operation of the storm water overflow (SWO) was assessed under the criteria set out in Section 4 of the Urban Waste Water Treatment Directive (91/271/EEC) – Procedures and Criteria in relation to Storm Water Overflows. The overflows were observed and assessed on a number of occasions during 2013 in both dry and wet weather conditions, principally at times of routine maintenance to the facilities.

The following criteria were assessed:

1. Causes significant visual or aesthetic impact and public complaints

All storm water overflows are the emergency overflows from the 6 pump stations locations.

All the SWO's with the exception of SW005 is screened. These SWO's do not cause any visual or aesthetic Impact or give rise to public complaint.

2. Causes deterioration in water quality in the receiving water

The storm water overflows identified above receive primary settlement in the pump chambers and do not cause any deterioration of the water quality in the receiving waters (River Suir and Tributary) when discharge occurs.

3. Gives rise to failure in meeting the requirements of National Regulations on foot of EU Directives (Bathing Water etc):

The receiving waters are not designated as bathing areas.

4. Operates in dry weather

The storm water overflows (SW002 to SW007) do not operate in dry weather flow conditions.

4.2 Report on progress made and proposals being developed to meet Improvement Programme requirements.

There is no proposal developed at this time for submission to the Agency in relation to improvement works. The licence under Schedule C1 has set out a Specified Improvement Programme in relation to the cessation and upgrade of storm water overflows. The completion date set down for such improvement works is 31/12/2020. Currently the storm water overflows are not having any adverse impact on the receiving waters and are not leading to any public complaint. The requirement for upgrade works will be reviewed in 2014 and reported on in the AER submission for 2014.

4.3 Sewer Integrity Risk Assessment

The sewer integrity risk assessment for the Carrick Agglomeration was carried out in 2013 (see Appendix B). The assessment was carried out based on information available from sewer layout maps (both paper and electronic copies) for the town and on a visual inspection of the network.

Funding is being sought through Budget submissions for 2014 for funding to allow for survey works in a number of agglomerations (including Carrick), that will provide additional detail on the network condition and allow for assessment of the network to the standards and specification as set out in the Sewer Integrity Risk Assessment Tool facility.

A summary of the Sewer Integrity Risk Assessment is presented in Table 14 below.

Table 14: Summary of Sewer Integrity Risk Assessment

Element	Risk Ass Score	Risk Category	% Risk Score	Max Risk Score
Section 2.1 Hydraulic Risk Assessment	135	High	90%	150
Section 3.1 Env Risk Assessment	194	Low	39%	500
Section 4.1 Structural Risk Assessment	150	High	100 %	150
Section 5.1 O and M Risk Assessment	26	Low	13%	200
Total RAS for Network	505	High	51%	1000

5.0 LICENCE SPECIFIC REPORTS

5.1 Priority Substances Assessments

The requirement for a risk based assessment to identify the possible presence of priority substances will be reviewed and reported upon to the Agency by the licensee as part of the AER report for submission in 2014.

5.2 Outstanding Reporting Requirements (Previous AER's)

5.2.1 Ambient Monitoring (2012)

Ambient monitor (both upstream and downstream) was carried out for the Carrick-on-Suir agglomeration in 2012. However the monitoring was not done to the full set of parameters or frequency as set out in the discharge licence, as the discharge licence was only issued in December 2012. Ambient Monitoring for 2013 to the licence requirements is set out in Section 2.3 above.

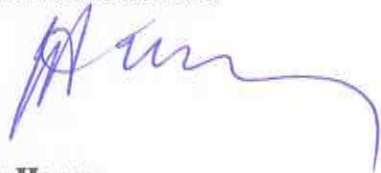
5.2.2 Discharge Monitoring (2012)

As the Discharge licence for the Carrick-on-Suir agglomeration was only issued in December 2012 it was not possible to have the discharge monitoring for 2012 to the requirement as set out in the licence.

6.0 CERTIFICATION AND SIGN OFF

I certify that this Annual Environmental Report (AER) for the reporting year 2013 for the Waste Water Discharge Licence No D0148-01 in respect of the Carrick Agglomeration is representative and accurate.

Signed



Dated: 28/04/14

Mr Jimmy Harney

Acting Director of Services

Environment and Water Services

South Tipperary County Council

APPENDIX A

AER/PRTR Emissions Data

[Guidance to completing the PRTR workbook](#)

AER Returns Workbook

Version 1.1.17

REFERENCE YEAR	2013
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1. FACILITY IDENTIFICATION

Parent Company Name	South Tipperary County Council
Facility Name	Carrick-on-Suir, Plant under construction
PRTR Identification Number	D0148
Licence Number	D0148-01

Waste or IPPC Classes of Activity

No.	class_name
30.4	General

Address 1	County Hall
Address 2	Clonmel
Address 3	
Address 4	
Country	Ireland
Coordinates of Location	-7.382 52.3463
River Basin District	IESE
NACE Code	3700
Main Economic Activity	Sewerage
AER Returns Contact Name	Denis Holland
AER Returns Contact Email Address	denis.holland@southippcoco.ie
AER Returns Contact Position	Senior Engineer
AER Returns Contact Telephone Number	052 61 34410
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	052 61 26710
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	8
User Feedback/Comments	There was no PRTR submission for the Carrick Agglomeration in 2012 as the licence was only issued in December 2012 and a PRTR was not required as advised by the EPA. There is therefore no variance to report on between 2012 and 2013.
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. WASTE IMPORTED/ACCEPTED ONTO SITE

[Guidance on waste imported/accepted onto site](#)

Do you import/accept waste onto your site for on-site treatment (either recovery or disposal activities)?	
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This question is only applicable if you are an IPPC or Quarry site

4.2 RELEASES TO WATERS

Link to previous years emissions data

| PRETR - 00148 | Facility Name: Cumbria-on-Sea Plant (air/ construction) | Permit No: D0148_2013_A8 | Return Year: 2013 |

10/06/2014 13:47

SECTION A: SECTOR SPECIFIC PRTR POLLUTANTS

RELEASURES TO WATERS

DATE ON AMBIENT MONITORING OF SURFACE WATER OR GROUNDWATER CONDUCTED AS PART OF YOUR LICENSE REQUIREMENTS, SHOULD NOT BE SUBMITTED UNDER AER/PRTR REPORTING AS THIS ONLY COMES PLEASE ENTER ALL QUANTITIES IN THIS SECTION IN KGS

No	Aerius ID	POLLUTANT	Name	M/C/E	Method Code	Method Used Description or Description	QUANTITY		
							Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
34		1,2-dichloroethane (EDC)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
25		Aldrich		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
26		Aldrin		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
81		Anthracene		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
17		Arsenic and compounds (as As)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
27		Atrazine		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
62		Benzene		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
91		Benzol(h,j,k)ylene		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
63		Brominated diphenylethers (PBDE)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
18		Cadmium and compounds (as Cd)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
28		Chlordane		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
29		Chlordane		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
30		Chloroacetic acid		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
76		Chlorobenzene		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
31		Chloro-alkanes, C10-C13		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
32		Chlorpyrifos		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
19		Chromium and compounds (as Cr)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
20		Copper and compounds (as Cu)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
82		Dylenides (as total CH)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
33		DDT		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
78		Di-C-ethyl hexyl phthalate (DEHP)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
34		Dichloroethane (DCM)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
35		Dieldrin		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
37		Dibutyltin		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
38		Endosulfan		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
39		Endosulfan		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
65		Ethyl benzene		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
58		Fluoranthene		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
83		Fluorides (as total F)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
40		Halogenated organic compounds (as AOX)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
41		Heptachlor		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
90		Hexachlorobiphenyl		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
42		Hexachlorobenzene (HCB)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
43		Hexachlorobutadiene (HCBD)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
80		Isodrin		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
67		Isoproturon		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
23		Lead and compounds (as Pb)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
45		Lindane		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
21		Mercury and compounds (as Hg)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
86		Mirex		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
88		Naphthalene		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
22		Nickel and compounds (as Ni)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
64		Nonylphenol and Nonylphenol ethoxylates (NPA/NPE)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
37		Organohalogen and Organohalogen ethoxylates		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
69		Organotin compounds (as total Sn)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
46		Perchlorobenzene		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
49		Pentachlorophenol (PCPP)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
71		Phenols (as total C)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
50		Polychlorinated biphenyls (PCBs)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
72		Polycyclic aromatic hydrocarbons (PAHs)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
51		Semazine		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
52		Tetrachloroethylene (PER)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
73		Tetrachloroethane (TCM)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
12		Toluenes		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
76		Total nitrogen		E	OTH	EPA WWTP Tool	8906.0	8906.0	0.0
13		Total organic carbon (TOC) (as total C or COD _{Cr})		E	OTH	EPA WWTP Tool	467.2	467.2	0.0
59		Total phosphorus		E	OTH	EPA WWTP Tool	0.0	0.0	0.0
74		Triethyltin and compounds		E	OTH	EPA WWTP Tool	0.0	0.0	0.0

No.	POLLUTANT	Method Code	Method Used Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
54	Tetrachloroethene (TCB)(all isomers)	E	OTH	EPA WWTP Tool	0.0	0.0	0.0
57	Trichloroethylene	E	OTH	EPA WWTP Tool	0.0	0.0	0.0
77	Trifluoride	E	OTH	EPA WWTP Tool	0.0	0.0	0.0
75	Triphenyltin and compounds	E	OTH	EPA WWTP Tool	0.0	0.0	0.0
60	Vinyl chloride	E	OTH	EPA WWTP Tool	0.0	0.0	0.0
78	Xylenes	E	OTH	EPA WWTP Tool	0.0	0.0	0.0
74	Zinc and compounds (as Zn)	E	OTH	EPA WWTP Tool	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the update button

SECTION B : REMAINING PRTR POLLUTANTS

POLLUTANT		Method Used Designation or Description		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
No. Annex II	Name	Method Code	Method Used Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0

Please enter all quantities in this section in KGs

* 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)

POLLUTANT		Method Used Designation or Description		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
Pollutant No	Name	Method Code	Method Used Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
303	BOD	M	OTH	Standard	4015.0	4015.0	0.0
306	COD	M	OTH	Standard	21800.0	21800.0	0.0
240	Suspended Solids	M	OTH	Standard	6935.0	6935.0	0.0
238	Ammonia (as N)	M	OTH	Standard	1460.0	1460.0	0.0
387	Ortho-phosphate (as P)	M	OTH	Standard	296.09	296.09	0.0

Please enter all quantities in this section in KGs

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE (Report: 2014) Facility Name: Caneke-Sun Plant (air constructed) Filtration: 00148_2010.06 (Return Year: 2013)
 Please enter all quantities on this sheet in Tonnes

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Licence/Permit No of Host Destination Facility (Name and Licence No of Recipient/Disposer)	Haz Waste Address of Host Destination Facility (Name and Licence No of Recipient/Disposer)	Actual Address of Final Destination (i.e. Final Recovery/Disposal Site) (HAZARDOUS WASTE ONLY)	Name and Licence/Permit No. and Address of Final Recovery/Disposer (HAZARDOUS WASTE ONLY)
						MIC/E	Method Used					
Within the Country	19 08 05	No	98.9	sludges from treatment of urban waste water	D8	M	Weighted	Offsite in Ireland	OD Recycling WFP-TS-10-0002-02	Ballyboe, Kishineelan, Conmel, Co Tipperary, Ireland		
Within the Country	19 08 05	No	12.46	sludges from treatment of urban waste water	D8	M	Weighted	Offsite in Ireland	Ormonde Organics MWCP 08-10595-02	0-Kilowen, Portlaw, Waterford, Co. WATERFORD, Ireland		

* Select 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](#)
[Link to Waste Guidance](#)

APPENDIX B

Sewer Integrity Risk Assessment

Section 1.1 Agglomeration Details						
Name		Carrick-on-Suir				
Licence Number		DO148-01				
Insert Name of Catchment if the Risk Assessment is for part of an agglomeration (only divide agglomeration where p.e. >5,000p.e. and where such division is warranted)		Insert Catchment Name (e.g., Downtown Pumping Station network). Refer to Guidance Notes for rules on division of large agglomerations.				
Date Licence Issued		20/12/2012				
Current Date		28/02/2014				
		Unit	Year 2013	Year 2015	Year 2018	Year 2021
Waste Water Works - Wastewater Treatment Plant Details						
1.1	Is there an existing WWTP in operation?		Yes	Yes	Yes	Yes
Section 1.2 BOD Loading & Population Equivalent						
1.2	Average Daily Influent Flow or Average Total Flow in system (if no measured data exists, insert estimated figure)	l/day, measured	2544173			
1.3	Average Daily Influent BOD or Average BOD Load from area served (if no measured data exists, insert estimated figure)	mg/l, measured	122.5			
1.4	Total BOD Load	kg/day	311.6611925			
1.5	Average Population Equivalent (@0.06kg/person/day)	p.e.	5194			
1.6	Estimated (existing) Non-Domestic Load	p.e.	256			
1.7	Estimated Domestic Load	p.e.	4938			
1.8	Occupancy Rate for the Agglomeration	pop/house	2.92			
1.9	Estimated Number of Connected Properties	houses	1691			
1.10	Number of properties within the agglomeration when compared with CSO Data or An Post Geodirectory	houses	2202			
Section 1.3 Hydraulic Details						
1.11	Average Dry Weather Flow arriving at WWTP OR Total Average DWF in system (if no measured data exists insert estimated figure)	l/s, measured	14.16			
1.12	Estimated 3DWF	l/sec	42.48			
1.13	Annual Average Peak Flow to WWTP or discharging from whole system if there is no existing WWTP	l/s, measured	53.67			
1.14	This Annual Average Peak as Multiples of Dry Weather Flow (Peaking)	Nr	3.79			
1.15	Highest Peak Flow Recorded (Insert UNKNOWN if no records exist)	l/s	75.13			
1.16	Does this Peak Flow (multiple of DWF) cause hydraulic capacity problems within the network ?	---	Yes	Yes	Yes	Yes
1.17	Total Rainfall for Previous Year	mm	953			
1.18	Comparison - Mean Annual Rainfall for the agglomeration	mm	1029.4			
1.18.1	Define the Weather Station Used		Moore Park			
1.19	If Storm Water Storage is available at the Wastewater Treatment plant, what is the volume of the storm tank ?	m ³	631			
1.20	Is the capacity of the storm tank sufficient to capture and retain all overflows to the tank ?	---	Yes	No	No	No
1.21	Total monthly average volume of Storm Water Stored or Returned for Treatment within the Waste Water Treatment Plant	m ³ per month	1500			
1.22	If the answer to 1.20 above is No, What is the estimated frequency of Overflows from the Storm Tank ? (N/A if no overflow)		N/A	< 1 per month	1 to 2 times per month	< 1 per month
Waste Water Works - Sewer Network Details		Unit	2013	2015	2018	2021
Section 1.4 Waste Water Works - Gravity Sewer Details						
1.23	What database is used to maintain records of the sewer network		Autocad Drawing	SUS 2001	SUS 2002	SUS 2003
1.23.1	If other or combination of the above please describe	Describe	Other Drwgs			
1.24	Total length of sewers (use drop down menus to define whether these figures are estimated or measured)	km Estimated	20.66	0.00	0.00	0.00
1.24.1	Total length of sewers > 450mm Diameter	km Estimated	2.50			
1.24.2	Total length of sewers > 300mm but ≤ 450mm in Diameter	km Estimated	3.40			
1.24.3	Total length of sewers > 225mm but ≤ 300mm in Diameter	km Measured	2.76			
1.24.4	Total length of sewers ≤ 225mm in Diameter	km Estimated	12.00			
1.24.5	Other	km Estimated	3.85			
1.25	Pipeline Material					
1.25.1	What portion of the sewer network consists of Concrete Pipes	% Estimated	20%			
1.25.2	What portion of the sewer network consists of Plastic Pipes	% Estimated	65%			
1.25.3	What portion of the sewer network consists of Clay materials	% Estimated	2%			
1.25.4	What portion of the sewer network consists of Brick Type Sewers	% Estimated	1%			
1.25.5	What portion of the sewer network consists of Other Materials	% Estimated	12%	Rising mains		
1.26	Total number of Storm Water Overflows (Enter '1' if none and state under Item 1.27 that there are no SWOs in the network; do not leave blank)	Nr	6			
1.27	What Screening or other mechanical devices are employed at the storm water overflows	Describe				
			Mechanical at SWO2			
			Mechanical at SWO 3			
			Mechanical at SWO 4			

		None at SWO 5				
		Mechanical at SWO 6				
		Mechanical at SWO 7				
1.27.1	SWO 2 at The Bridge	Describe	Overflow at PS			
	SWO 3 at Pili Road	Describe	Overflow at PS			
	SWO 4 at Carrig Beg	Describe	Overflow at PS			
	SWO 5 at The Three Bridges	Describe	Overflow at PS			
	SWO 6 at Clonmel Road	Describe	Overflow at PS			
	SWO 7 at Ballylynch Lower	Describe	Overflow at PS			
1.28	Water Quality at the receiving waters	Sensitive for SWO 2				
		Sensitive for SWO 3				
		Sensitive for SWO 4				
		Sensitive for SWO 5				
		Sensitive for SWO 6				
		Sensitive for SWO 7				

1.30	Total Length of Rising Mains (operated by the Local Authority)	km	3.85		
1.31	Rising Main Material				
1.31.1	What portion of the rising mains consists of ductile iron pipes	% Measured	90.00		
1.31.2	What portion of the rising mains consists of plastic pipes	% Measured	10.00		
1.31.3	What portion of the rising mains consists of other materials	% Estimated	0.00		
1.32	Discharge Capacity of the Pump Set (s) at normal duty point				
	At Pump Station 002 at The Bridge	l/sec	30		
	At Pump Station 003 at Pill Road		100		
	At Pump Station 004 at Carrig Beg		5		
	At Pump Station 005 at Three Bridges		5		
	At Pump Station 006 at Clonmel Road		40		
	At Pump Station 007 at Ballylynch Lower		40		
1.33	What percentage of the pumping stations have recorded flow data (i.e. If all pumping stations have flow meters on the rising mains then this would read 100%)	%	85.00%		
1.34	Available Storage Capacity at Pump Stations				
	At Pump Station 002 at The Bridge	m ³	60		
	At Pump Station 003 at Pill Road		60		
	At Pump Station 004 at Carrig Beg		15		
	At Pump Station 005 at Three Bridges		10		
	At Pump Station 006 at Clonmel Road		20		
	At Pump Station 007 at Ballylynch Lower		20		
1.35	Total Number of "Licenced Secondary Discharge Points and Stormwater Overflows" at pumping stations	Nr	6		
1.36	Total Number of "Emergency Overflow Points" at pumping stations	Nr	1		
1.37	What Screening or other mechanical devices are employed at the secondary discharge points or emergency overflows ?				
	At Pump Station 002 at The Bridge	Describe	Mech Screen		
	At Pump Station 003 at Pill Road		Mech Screen		
	At Pump Station 004 at Carrig Beg		Mech Screen		
	At Pump Station 005 at Three Bridges		No Screen		
	At Pump Station 006 at Clonmel Road		Mech Screen		
	At Pump Station 007 at Ballylynch Lower		Mech Screen		
1.38	Water Quality at the receiving waters at each pumping station location				
1.38.1	Where the receiving water is a river - indicate the EPA Biological Rating of the Receiving Water for each secondary discharge point or emergency overflow at each pumping station (Particularly if there is more than one receiving water within the agglomeration)				
	At Pump Station 002 at The Bridge	Describe	Q4		
	At Pump Station 003 at Pill Road		Q4		
	At Pump Station 004 at Carrig Beg		Q4		
	At Pump Station 005 at Three Bridges		Q4		
	At Pump Station 006 at Clonmel Road		Q4		
	At Pump Station 007 at Ballylynch Lower		Q4		
1.38.2	Where the receiving water is a coastal water indicate the Status of the Receiving Water for each secondary discharge point or emergency overflow at each pumping station (Particularly if there is more than one receiving water within the agglomeration)				
	At Pump Station 1	Describe	N/A		
1.38.3	With reference to the pumping stations, for each secondary discharge point or emergency overflow detailed above, define if the receiving waters are sensitive in accordance with the Urban Wastewater Treatment Regulations as amended.				
	At Pump Station 002 at The Bridge	Designation	Sensitive		
	At Pump Station 003 at Pill Road	Designation	Sensitive		
	At Pump Station 004 at Carrig Beg	Designation	Sensitive		
	At Pump Station 005 at Three Bridges	Designation	Sensitive		
	At Pump Station 006 at Clonmel Road	Designation	Sensitive		
	At Pump Station 007 at Ballylynch Lower	Designation	Sensitive		
1.38.4	With reference to the pumping stations, for each secondary discharge point or emergency overflow detailed above, are the receiving waters Protected Areas (designated or awaiting designation) .				
	At Pump Station 002 at The Bridge	Designation	SAC		
	At Pump Station 003 at Pill Road		SAC		
	At Pump Station 004 at Carrig Beg		SAC		
	At Pump Station 005 at Three Bridges		SAC		
	At Pump Station 006 at Clonmel Road		SAC		
	At Pump Station 007 at Ballylynch Lower		SAC		
1.38.5	With reference to the pumping stations, for each secondary discharge point or emergency overflow detailed above, do the receiving waters have any other designations.				
	At Pump Station 1	Designation	Not Listed		
1.39	Estimated Number of Private Pumping Stations within the agglomeration (not operated by the Local Authority)	Nr	1		

	Section 1.6 Reporting					
	Section 1.6.1 Reported Number of Sewer Related Complaints					
1.40	Number of Reported Complaints	Nr	0			
1.41	Number of Reported Complaints which have been rectified	Nr	0			
	Section 1.6.2 Reported/Recorded/Estimated Number of Secondary Discharges					
1.42	Number of Reported Secondary Discharges	Nr	0			
1.43	Number of Recorded Secondary Discharges	Nr	0			
1.44	Estimated Total Number of Secondary Discharges	Nr	0			
	Section 1.6.3 Reported/Recorded/Estimated Number of Emergency Overflow Discharges from Pumping Stations					
1.45	Number of Reported Emergency Overflow Discharges	Nr	0			
1.46	Number of Recorded Emergency Overflow Discharges	Nr	0			
1.47	Estimated Total Number of Emergency Overflow Discharges	Nr	0			
	Section 1.7 Operational Staff					
1.48	In the four boxes below, describe the extent of operation staff employed by the Local Authority to maintain and operate the sewer network and pumping stations					
1.48.1	1 No Local Authority Town Foreman with General Operative Staff as required. 1 No DBO Project Manager with 1 No DBO Plant Operator. Service staff contracted depending on works required					
1.48.2						
1.48.3						
1.48.4						
	Waste Water Works - Investment Details	Unit	2013	2015	2018	2021
	Section 1.8 Capital Investment works carried out since most recent report (including works not included on WSIP Programme or not WSIP funded)					
1.49	Sewers Upgraded or Replaced	m	0			
1.50	Sewers Rehabilitated	m	0			
1.51	Manholes Rehabilitated	Nr	0			
1.52	Local Repairs	Nr	0			
1.53	Total Length of sewers Upgraded, Replaced or Rehabilitated	m	0			
1.54	Pumping Stations Operated by Local Authority Upgraded or Repaired	Nr	0			
1.55	WWTW operated by Local Authority Upgraded or Replaced	Nr	0			
1.56	In the following two cells describe the actual Capital Investment undertaken in the reporting period.					
1.56.1	<i>None</i>		None			
1.56.2						
	Section 1.9 Licence Specified Improvements Works					
1.57	<i>The Local Authority is required to report on the extent of Improvement Works which have been specified under the Licence as issued by the EPA. Reference which AER contains this information</i>		None			
	Section 1.10 Other Updates Since Last Report					
1.58	<i>n/a</i>					
1.59						
1.60						
1.61						
1.62						
1.63						

Section 2.1 Hydraulic Risk Assessment					
Query	Description	Prompt	Risk Score	Short Commentary by the Local Authority	Comment or Action to be Taken
2.1	Has a Hydraulic Performance Assessment been undertaken for the Sewer Network (e.g., Computer Model or other Engineering Design or Design Review) ?	No	40		If the answer is No assess the need and cost benefit of developing a computer model or engineering design assessment of the Sewer Network and complete Query 2.12. If the answer is Yes proceed to Queries 2.1.1 to 2.1.4 inclusive
2.1.1	If Answer to Query 2.1 is Yes, what % of the Network is covered by the hydraulic assessment ?	N/A	0		The % coverage of the Network by the Hydraulic Assessment can be estimated by the area assessed against the area served by the Network. ENTER "N/A" IF COMPUTER MODEL or DESIGN DOES NOT EXIST. DO NOT LEAVE BLANK OR ENTER "0".
2.1.2	How many years has it been since the completion of the hydraulic assessment ?	N/A	0		Select N/A response if no design assessment or design exists.
2.1.3	Are the outcomes of the Hydraulic Assessment being implemented ?	N/A	0		Select N/A response if no design assessment or design exists.
2.1.4	How many years has it been since the outcomes of the hydraulic assessment have been implemented ?	N/A	0		Select N/A response if no hydraulic performance assessment or design exists. For onging works select "less than 5".
2.2	Has a Dynamic Computer Model been used to Assess the Hydraulic Performance of the Sewer Network ?	No	10		Computer Model means a Hydroworks/Infoworks Model, Micro-Drainage Model or equivalent.
2.3	Has a Manhole Survey been undertaken in accordance with WRc Documentation "Model Contract Document for Manhole Location Surveys and the Production of Record Maps" ?	No	10		If the answer is No assess the need and cost benefit of undertaking a Manhole Survey and complete Query 2.12. If the answer is Yes proceed to Query 2.2.1
2.3.1	If yes, how many years has it been since the survey was undertaken or updated?	N/A	0		Select N/A if no Manhole Survey has been undertaken. Enter N/A value for Confidence Grade if Prompt Box is "N/A"
2.4	Has a Flow Survey been undertaken in accordance with WRc Documentation "A Guide to Short Term Flow Surveys of Sewer Systems" and "Contract Documents for Short Term Sewer Flows" ?	No	20		If the answer is No assess the need and cost benefit of undertaking a Flow Monitoring Survey and complete Query 2.12. If answer is Yes Proceed to Query 2.5
2.5	What was this Flow Survey Information Used for ?				
2.5.1	To Determine the extent of Problematic Sewer Catchments	N/A	0		Select N/A if no Flow Survey has been undertaken.
2.5.2	To Verify a Computer or Mathematical Model of the Network	N/A	0		Select N/A if no Flow Survey has been undertaken.
2.6	Have Performance Criteria been developed to determine the short, medium or long term capacity of the sewer network ?	No	10		If the answer is No assess the Future Needs of the Sewer Network and complete Query 2.12. If the answer is Yes proceed to Query 2.8
2.7	How many flood events resulting from surcharge in the network have occurred in the past 3 years?	1 to 3	5		Flood events in this context means water/sewage backing up from the Network causing flooding of properties or causing disruption of traffic
2.8	Are there deficiencies in performance criteria within the sewer network ?	Yes	20		If the answer is No , Proceed to Query 2.10 and complete Query 2.12. If the answer is Yes proceed to Query 2.9
2.9	Have the causes of these deficiencies in the Performance Criteria been identified and rectified ?	No	10		If the answer is No , consider further examination of the hydraulic model (if available) and complete Query 2.12. If the answer is Yes proceed to Query 2.10
2.10	Can the Hydraulic Assessment (defined in Query 2.1 above) be used to determine the benefit of reducing the contributory Impermeable Areas or extent of surface water contributions	N/A	0		If the answer is No , consider further development of the Hydraulic Assessment (or model if available) and complete Query 2.12. If the answer is Yes proceed to Query 2.11
2.11	Has an Impermeable Area Survey been carried out for the agglomeration or parts of the agglomeration ?	No	10		If the answer is No , consider the need and cost benefit of undertaking an Impermeable Survey for parts of the agglomeration which are under hydraulic pressure and complete Query 2.12.
Total Risk Assessment Score (RAS)			135		
2.12	Prepare Assessment of Needs & Sewer Upgrade Implementation Plan	In the AER Attach Assessment of Needs and Rehabilitation Implementation Plan as separate documents			
2.13	In the AER provide Summary of Proposed Works or Direction to be taken to improve hydraulic efficiency				

Section 3.1 Environmental Risk Assessment					
Query	Description	Prompt	Risk Score	Short Commentary by the Local Authority	Comment or Action to be Taken
3.1	<u>What Environmental or Discharge Quality Data is available with regard to the sewer network ?</u>	largely anecdotal	20		Select N/A if no discharges, secondary discharges or overflows from network; if discharges do exist complete Query 3.12
3.1.1	<u>Do trade effluents discharge to the sewer network?</u>	Yes	20		If the answer is No, proceed to Query 3.1.2. If the answer is Yes, Proceed to Query 3.2
3.1.2	<u>Are there Storm Water Overflows within the network ?</u>	Yes	20		If the answer is No, proceed to Query 3.1.3. If the answer is Yes, Proceed to Query 3.3
3.1.3	<u>Are there Secondary Discharges within the network (excluding Emergency Overflows at Pump Stations)?</u>	No	0		If the answer is No, proceed to Query 3.1.4.
3.1.4	<u>Is there any evidence that exfiltration is occurring from the network ?</u>	Unknown	20		If the answer is No, does all wastewater enter a wastewater treatment plant (insert summary details in the AER)? If Yes, Proceed to Query 3.6
3.2	<u>If Answer to Query 3.1.1 is "Yes", what % of trade effluents have a licence to Discharge to the Public Sewer ?</u>	71 - 80%	4		Select N/A if answer to Query 3.1.1 is No. If not all trade effluents are licenced, Local Authority should consider issuing and controlling such discharges under the appropriate Legislation.
3.2.1	<u>Are all licenced trade Discharges compliant with their relevant licence and associated conditions</u>	No	10		Answer N/A if none of the trade effluents are licenced. Answer No if this information is unknown. If the answer is Unknown or No, consider issuing a direction to the relevant Licences. If the answer is Yes, no further action is needed.
3.2.2	<u>If Answer to Query 3.2.1 is "No", state what % of Trade Discharges are NOT compliant with their relevant licence and associated conditions (where that non-compliance led to enforcement action)</u>	0 - 10%	5		Select N/A if answer to Query 3.2.1 is Yes. If N/A is selected as answer to Query 3.2.2
3.3	<u>In accordance with the DoEHLG paper "Procedures & Criteria in relation to Storm Water Overflows", what % of storm water overflows in the system have been classified for their significance?</u>	N/A	0		If the answer is No, consider a review of each discharge within the sewer network complete and Query 3.11. If the answer is Yes, proceed to Query 3.6
3.4	<u>Have samples from any Secondary Discharges within the system been analysed ?</u>	No	30		Select N/A if no secondary discharges in system. If the answer to Query 3.4 is No, consider examining the quality of each secondary discharge within the sewer network complete Query 3.11. If the answer is Yes, proceed to Query
3.5	<u>What percentage of discharges from the system are known to cause environmental pollution of the receiving waters ?</u>	None	0		If the answer is greater than 50% then detail, in the AER, the Improvement Programme necessary to reduce this percentage.
3.6	<u>In relation to possible exfiltration has a risk analysis of ground water contamination or pollution been undertaken ?</u>	No	20		Select N/A if answer to Query 3.1.4 is NO. If the answer is No, consider undertaking ground water risk analysis and complete Query 3.12
3.6.1	<u>If Answer to Query 3.6 is "Yes", have any groundwater aquifers been identified in the area of the Network and/or Discharge Points?</u>	No	0		Select N/A if no risk analysis of groundwater contamination has been undertaken.
3.6.2	<u>If Answer to Query 3.6.1 is "Yes", state the classification of groundwater aquifer identified in the area?</u>	N/A	0		Select N/A if no risk analysis of groundwater contamination has been undertaken.
3.6.3	<u>In relation to Query 3.6.1, is the aquifer used as a source for Public, Private or Group Water Supply Schemes?</u>	Yes	0		Select N/A if no risk analysis of groundwater contamination has been undertaken.
3.7	<u>Has an Impact Assessment of each Storm Water Overflow been undertaken in accordance with the DoEHLG paper "Procedures & Criteria in relation to Storm Water Overflows" including setting performance criteria?</u>	N/A	0		If the answer is No, consider assessing the risk category of the receiving waters. If the answer is Yes, proceed to Query 3.8 and provide summary details of the assessment in the AER.
3.8	<u>What percentage of storm water overflows comply with the performance criteria referred to in Query 3.7?</u>	N/A	30		Select N/A if answer to Query 3.7 is No or if there are no SWOs in system. (Risk Score is locked at 0 if no SWOs in system is stated in Agglomeration Details)
3.9	<u>Have the causes of these Capacity Deficiencies (storm water overflows & Secondary Discharges) been identified ?</u>	No	15		Select N/A if answer to Query 3.7 is NO or if there are no SWOs in system. If the answer to Query 3.9 is No, consider further examination of the environmental
Total Risk Assessment Score (RAS)			194		
3.10	<u>Prepare Assessment of Needs & Sewer Upgrade Implementation Plan</u>	In the AER Attach Assessment of Needs and Rehabilitation Implementation Plan as separate documents			
3.11	Provide Summary Details (in the AER) of records upstream and downstream of licenced discharges with regard to Environmental Performance of the network. These details can be included as part of the AER submitted for the agglomeration.				

Section 4.1 Structural Risk Assessment					
Query	Description	Prompt	Risk Score	Short Commentary by the Local Authority	Comment or Action to be Taken
4.1	Has a CCTV Survey been undertaken in accordance with WRc Documentation "Model Contract Document for Sewer Condition Inspections" and "Manual of Sewer Condition Classification" ?	No	10		If the answer is No assess the need and benefit of undertaking CCTV Survey. If Yes Proceed to Query 4.2
4.1.1	How many years has it been since the completion of the CCTV Survey?	N/A	0		If no CCTV has been undertaken, select "N/A" response
4.2	What was this CCTV Survey Information Used for?	N/A	10		Select N/A if answer to Query 4.1 is NO.
4.3	Has the CCTV Survey been used to Assess the Structural Condition of the Sewer Network or targeted sections of the Sewer Network?	No	5		If no CCTV has been undertaken, select "No" response. If the answer is No assess the need and benefit of undertaking an assessment of the Structural Condition of the Sewer Network. If the answer is Yes proceed to Q
4.4	Have Performance Criteria been developed to determine the short, medium or long term structural condition of the sewer network ?	No	5		If the answer is No, enter "unknown" in response to Queries 4.4.1 to 4.4.5; consider assessing the Future Needs of the Sewer Network. If the answer is Yes proceed to Queries 4
4.4.1	What % of the Total Sewer Length contains Collapsed or Imminent Collapse of Sewers (Grade 5)	unknown	30		Insert Percentage of Overall Network Length; If a sewer length contains a Grade 5 collapse, include the total length of that sewer in calculating the %. If information is not available type "Unknown" into Prompt Box
4.4.2	What % of Total Sewer Length contains Sewers Likely to Collapse (Grade 4)	unknown	25		Insert Percentage of Overall Network Length; If a sewer length contains a Grade 4 condition, include the total length of that sewer in calculating the %. If information is not available type "Unknown" into Prompt Box
4.4.3	What % of Total Sewer Length contains sewers with Further Possible Deterioration (Grade 3)	unknown	10		Insert Percentage of Overall Network Length; If a sewer length contains a Grade 3 deterioration, include the total length of that sewer in calculating the %. If information is not available type "Unknown" into Prompt Box
4.4.4	What % of Total Sewer Length contains sewers with Minimal Collapse (Grade 2)	unknown	5		Insert Percentage of Overall Network Length; If a sewer length contains a Grade 2 feature, include the total length of that sewer in calculating the %. If information is not available type "Unknown" into Prompt Box
4.4.5	What % of Total Sewer Length contains sewers of Acceptable Structural Condition (Grade 1)	unknown	5		Insert Percentage of Overall Network Length. If information is not available type "Unknown" into Prompt Box
If all % lengths are known, Check Total Length = 100%			75		If answers to Queries 4.4.1, 4.4.2 or 4.4.3 are above a set level, the RAS for Query 4 is automatically set at the maximum of 140.
4.5	What % of the deficiencies, as detailed in Items 4.4.1, 4.4.2 and 4.4.3, have been rectified ?	N/A	35		Select N/A if answer to Query 4.4 is No. If the answer is No, Proceed to Query 4.6. If the answer is Yes, what monitoring is in place to ensure continued acceptance of structural condition? Proceed to Query 4.7
4.6	Have the causes of the Structural Deficiencies (Grades 3, 4 and 5) been identified or is there a Preventative Maintenance Programme in place?	No	10		If the answer is No, consider further examination of the sewer network, the structural loading conditions, gradients and possible H ₂ S Formation. If Yes completed Query 4.7
Total Risk Assessment Score (RAS)			150		
4.7	Prepare Assessment of Needs & Sewer Rehabilitation Implementation Plan	In the AER Attach Assessment of Needs and Rehabilitation Implementation Plan as separate documents			

Section 5.1 O&M Risk Assessment					
Query	Description	Prompt	Risk Score	Short Commentary by the Local Authority	Comment or Action to be Taken
5.1	<u>Are complaints of an environmental nature recorded and held in a central database?</u>	Yes	0		Consider setting up Central Database for Complaints
5.2	<u>Is there an emergency response procedure in place?</u>	Yes	0		Consider setting up target response times for dealing with Complaints
5.3	<u>What has been the highest frequency of flooding in the network due to hydraulic inadequacy, over the past 5 years?</u>	Once/yr	4		Refers to flooding from the Network only, not natural flooding from rivers/streams/high tides. Select the highest number of events in any 12 month period.
5.4	<u>What has been the highest frequency of flooding in the network due to operational causes over the past 5 years?</u>	Once/yr	4		Refers to flooding from the Network only, not natural flooding from rivers/streams/high tides. Select the highest number of events in any 12 month period.
5.5	<u>What has been the highest frequency of surcharging of critical sewers in the network, over the past 5 years?</u>	Once/yr	2		Select the highest number of events in any 12 month period.
5.6	<u>What has been the highest frequency of reportable incidents in the network, over the past 5 years?</u>	Once/yr	2		Select the highest number of events in any 12 month period.
5.7	<u>What has been the highest frequency of reportable incidents due to discharges, for whatever reason, from Pumping Station Emergency Overflows in the network, over the past 5 years?</u>	Once/yr	2		Select the highest number of events at any given Pumping Station in any 12 month period.
5.8	<u>What has been the highest frequency of blockages in sewers in the network over the past 5 years?</u>	0.01 - 0.05/km/yr	8		Select the highest number of events per km of sewer network in any 12 month period.
5.9	<u>What has been the highest frequency of collapses in sewers in the network over the past 5 years?</u>	Once/yr	4		Select the highest number of events in any 12 month period.
5.10	<u>What has been the highest frequency of bursts in rising mains in the network over the past 5 years?</u>	None	0		Select the highest number of events in any 12 month period.
Total Risk Assessment Score (RAS)			26		
5.11	<u>Prepare Up Dated Operational and Maintenance Plan</u>				

Section 6.1 Summary of Risk Assessment Scores

Element	Risk Assessment Score	Risk Category	% Risk Score	Maximum Risk Score
Section 2.1 Hydraulic Risk Assessment	135	High Risk	90%	150
Section 3.1 Environmental Risk Assessment	194	Low Risk	39%	500
Section 4.1 Structural Risk Assessment	150	High Risk	100%	150
Section 5.1 O&M Risk Assessment	26	Low Risk	13%	200
Total RAS for Network	505	High Risk	51%	1000

If the total RAS is greater than 750, or if any of the individual RASs are greater than 75% of the Maximum Available Score, the Risk category for the Network is graded "High Risk"