

SOUTH TIPPERARY COUNTY COUNCIL



BALLYCLERIHAN

WASTEWATER DISCHARGE LICENCE

REGISTER NUMBER D0455-01

ANNUAL ENVIRONMENTAL REPORT

1st JANUARY 2013 to DECEMBER 31ST 2013

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1. INTRODUCTION AND EXECUTIVE SUMMARY

1.1 Introduction

This is the fourth 'Annual Environmental Report' submitted to The Environmental Protection Agency with respect of the agglomeration named Ballyclerihan which was granted a Wastewater Discharge Licence Register No D0455-01 on 10th June 2010. Condition 6.10 of the Licence requires the Council to submit on an annual basis an 'Annual Environmental Report' (AER) to provide a summary of activities relevant to the discharges for that year. This fourth Annual Environmental Report (AER) for the Ballyclerihan Wastewater Treatment Plant 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 Ballyclerihan Wastewater Treatment Plant is in the village of Ballyclerihan, Co. Tipperary located between Cashel and Clonmel, with the waste water treatment plant located approximately 700m south west of the village.

The sewage network is generally a combined system, with the more recent housing developments installing separate foul and surface water systems. The sewage generally flows by gravity to a pumping station located within the site of the WWTP. The plant operates an activated sludge process including screening, grit removal, storm treatment, aeration and final clarification.

The plant operates to a high performance specification (10:125:10 for BOD:COD:SS) using tertiary treatment and nutrient removal. This level of treatment is required due to the limited dilution capacity of the receiving waters. The treated effluent is discharged through an open pipe to the Knockeevan river (primary discharge point SW1), a tributary of the River Suir.

1.2 Executive Summary

The Ballyclerihan 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 2.0 mg/l against an ELV of 10 mg/l while Suspended Solids and COD had mean effluent values of 4.75 mg/l and 14.7 mg/l against ELV's of 10 mg/l and 125 mg/l respectively. The average effluent value for Ammonia was 0.1 mg/l against an ELV of 1mg/l. The average effluent values for TN and TP were 5.94 mg/l and 0.41 mg/l respectively.

The total influent flow for the year was 39,471 m³ while the current flow weighted average influent BOD to the plant is 429 mg/l giving a current pe loading of the plant of 774 pe. This compares with a plant design of 2,000 pe.

The average daily flow for the year was 108 m³ /day against a plant design of 449 m³/day which indicates that the plant is operating within it's hydraulic and treatment capacities.

There were two exceedences in the final effluent value for Soluble Reactive Phosphorus in this reporting period. These occurred in June and November. The annual mean value was 0.32 mg/l against an ELV of 5 mg/l.

A review of the ambient monitoring results for upstream and downstream of SW1 indicates that the discharge is having no adverse impact on the quality of the receiving waters. Small Stream Risk Score assessments carried out upstream and downstream of the outfall were similar, indicating no adverse impacts from the discharge.

The percentage reductions shown in the treatment efficiency report summary (Section 3) show that reductions of 99.6%, 98.8% and 99% were achieved in BOD, COD and Suspended Solids respectively.

A reduction of 99% was achieved in the Ammonia levels while nutrient removal efficiencies for TP and TN were 97% and 93% respectively.

An interpretation and analysis of the final effluent results is given in Section 2.2 of this 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 2013 for BOD, COD, Suspended Solids, Ammonia (as N), Total Nitrogen, Total Phosphorus and pH. Also set out below is the calculation of the pe equivalent load and the flow weighted average BOD load for the WWTP.

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

	Flow M ³ /Day	cBOD 5d with nitrification inhib mg/l	Chemical Oxygen Demand (COD)	Suspended Solids mg/l	pH Value pH unit	Ammonia Nitrogen (as N) mg/l	Total Phosphorus (as P) mg/l	Total Nitrogen (as N)
ELV	m3	10mg/l	125 mg/l	10 mg/l	6 to 9	1 mg/l	mg/l	20 mg/l
08/01/2013	108	575	1,343	697	7.4	49.1	12.61	80.6
07/02/2013	138	278	636	348	7.3	32.8	7.87	49.5
05/03/2013	64	450	1,225	503	7.5	63.1	12.81	89.2
09/04/2013	81	760	1,802	988	8.1	67.2	16.91	104
08/05/2013	157	133	396	138	8.4	45	9.33	71.7
11/06/2013	133	565	1,265	654	7.4	62.8	14.4	92.4
02/07/2013	90	640	1,592	823	7.4	71	16.9	99.7
13/08/2013	85	340	657	261	7.6	74.6	14.41	93.6
03/09/2013	75	370	753	263	7.5	70.8	13.31	92.2
08/10/2013	93	500	1,123	695	7.4	44.3	12.4	68.9
05/11/2013	96	330	625	264	7.8	49.3	11.8	70.7
03/12/2013	85	440	1,079	368	7.5	61.7	13.91	85.7
No of Samples	12	12	12	12	12	12	12	12
Annual Max	157	760	1802	988	8.40	74.60	16.91	104.00
Annual Mean		477	1041	500	7.61	57.64	13.06	83.18

Calculation of the Population Equivalent load to the WWTP

The total influent for the year 2013 was 39,537m³. The average daily influent flow was 108m³.

The flow weighted averaged influent BOD as calculated per Table 2 below is 429 mg/l

Ballyclerihan 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 = (39,537 x 429) / (0.06 x 365 x 1000) = **774**

Table 2: Calculation of the flow weighted average BOD for 2013.

Sample date	Flow (m ³ /day)	cBOD (mg/l)	cBOD (Kg)
08/01/2013	108	575	62
07/02/2013	138	278	38
05/03/2013	64	450	29
09/04/2013	81	760	62
08/05/2013	157	133	21
11/06/2013	133	565	75
02/07/2013	90	640	58
13/08/2013	85	340	29
03/09/2013	75	370	28
08/10/2013	93	500	47
05/11/2013	96	330	32
03/12/2013	85	440	37
Total	1205		518

The flow weighted average BOD is 518 Kg x 1,000 / 1205 m³ = 429 mg/l

2.2 Discharges from the agglomeration

Presented below in Tables 3 and 4 are the primary discharge point monitoring effluent 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 Ballyclerihan Wastewater Treatment Plant effluent monitoring results with the associated Emission Limit Values (ELV's).

	Cbod 5d with Nitrification Inhib (mg/l)	Chemical Oxygen Demand (mg/l)	Suspended Solids (mg/l)	pH Value (unit)	Ammonia Nitrogen (as N) mg/l	Soluble Reactive Phosphorus (mg/l)	Total Phosphorus (as P) mg/l	Total Nitrogen (as N) mg/l
ELV	10 mg/l	125 mg/l	10mg/l	6 to 9	1 mg/l	0.5 mg/l	mg/l	20mg/l
8/1/2013	2	18	4	7.8	0.1	0.11	0.21	3
7/2/2013	2	15	8	8	0.1	0.09	0.2	5.6
5/3/2013	2	15	5	7.6	0.1	0.03	0.06	12.3
9/4/2013	2	15	6	7.8	0.1	0.03	0.13	12.4
8/5/2013	2	18	8	7.6	0.1	0.06	0.2	2.1
11/6/2013	2	18	4	7.9	0.1	2.13	2.32	2.9
23/7/2013	2	15	3	7.8	0.1	0.29	0.3	2.7
13/8/2013	2	15	5	7.9	0.1	0.04	0.1	2.2
3/9/2013	2	15	3	7.8	0.1	0.06	0.11	5.1
8/10/2013	2	15	4	7.9	0.1	0.09	0.14	3.4
5/11/2013	2	15	3	7.9	0.1	0.58	0.67	4.3
3/12/2013	2	17	4	7.8	0.1	0.31	0.45	15.3
No of Samples	12	12	12	12	12	12	12	12
Annual Max	2	18	8	8	0.1	2.13	2.32	15.3
Annual Mean	2	14.7	4.75	7.8	0.1	0.32	0.41	5.94

Table 3 cond: Ballyclerihan Plant effluent monitoring for OFG, Faecal Coliform and Conductivity 2013.

	OFG	Faecal Coliform	Conductivity
	Mg/l Cke 083	MPN per 100 mls	@25deg C
8/1/2013	nt	<3	701
7/2/2013	nt	<3	916
5/3/2013	<5	<3	944
9/4/2013	nt	<3	1146
8/5/2013	nt	<3	836
11/6/2013	nt	<3	560
23/7/2013	nt	<3	913
13/8/2013	nt	<1	842
3/9/2013	<5	<0.3	711
8/10/2013	nt	<3	681
5/11/2013	nt	<3	523
3/12/2103	nt	<3	749
No of Samples	2	12	12
Annual Max	< 5	<3	1146
Annual Mean	<5	2.6	794

Table 4: Summary of the Effluent Monitoring and Compliance

	BOD	COD	SS	TN	pH	Ammonia	Ortho P
WWDL ELV	10 mg/l	125 mg/l	10 mg/l	20 mg/l	6 to 9	1 mg/l	0.5 mg/l
No of sample results	12	12	12	12	12	12	12
No of sample results above ELV	0	0	0	0	0	0	2
No of sample results above ELV with Condition 2 interpretation.	0	0	0	0	0	0	1
Overall Compliance	Pass	Pass	Pass	Pass	Pass	Pass	Fail

Interpretation and analysis of results:

A review of the final effluent results for 2013 shows that there were 2 exceedences in the ELV for Soluble Reactive Phosphorus . These occurred on the 11/06/2013 and 5/11/2013.

The effluent value on the 11/6/2013 was 2.13 mg/l against an ELV of 0.5 mg/l. On a review of the operation and maintenance records for the year it was noted that there was a slight fault with the dosing line for the ferric at that time. It also co-incided with a high influent TP load at the time. The second exceedence on the 5/11/2013 was within the allowable range by interpretation of Condition 2 of the licence. The Soluble Reactive Phosphorus exceedence for 11/06/2013 was reported to the EPA via EDEN.

Table 5 : Ballyclerihan WWTP: Primary point daily flow recordings (m3/day) for 2013 as required under Schedule B (Monitoring) of the Discharge Licence.

Day	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1	135	132	66	78.5	69	59	72.5	214	71	76	38	84
2	105	115	50	73	56	69	75	89	71	194	46	84
3	84	66.5	70	58	67	69	62	92	57	184	98	73
4	76	66.5	70	42	113	81	50	139	59	152	98	75
5	107	217	61	25	68.5	50	47	139	61	86	87	65
6	97	83	76	64	68.5	57	42	64	64	70.5	157	38
7	97	115	87	68.5	75	55	50	60	71	70.5	84	38
8	95	64	45.5	68.5	137	55	50	54	109	80	85	67
9	52	115	45.5	66	99	63.5	74	73	109	65	79	67
10	35	125	125	67	79	63.5	58	73	62	71	190.5	74
11	23	125	125	142	73	118	50	62.5	65	61	190.5	85
12	101	85	66	100	85.5	58	53	62.5	65	78.5	225	76
13	81.5	90	78	69	85.5	108	45	68	36	78.5	26	95
14	81.5	188	76	96	74	78	67	62	90	57	60	115
15	74	84	91	96	75	128	67	106	92.5	59	186	107
16	137	68	93	113	66	141.5	54	91	92.5	249	72	107
17	84	83	74.5	136	76	141.5	85	83	71	117	96	108
18	372	83	74.5	75	88	70	27	63.5	167	186	96	96
19	124	67	77	91	75.5	74	18	63.5	77	250	82	275
20	95	64	56	70	75.5	56	66	57	65	164.5	85	64
21	95	75	132	128	93	61	56.5	44	50	164.5	63	189
22	82	58	339	128	48	73	56.5	56	77	208	54	243
23	64	72	274	63	67	74	89	66	77	124	112	243
24	75	66	89	84	74	74	70	88	49	111	62	164
25	120	66	89	90	87	56	170	72	45	437	62	133
26	437	62	161	61	113.5	67	62	72	77	205	77	133
27	168.5	60	74	68	113.5	55	25.5	70	60	205	68	191
28	168.5	68	73	72	109	44	25.5	76	64	133	64	104
29	114		76.5	72	87	65	75	62	93.5	154	75	297
30	112		76.5	69	63	72.5	60	60	93.5	60	63	297
31	75		78.5		71		214	68		47		331

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 waters.

Table 6: Ambient monitoring at aSW-I U upstream of SW I (216318E, 128307N)

Sample Date	Ammonia mg/l as N	BOD mg/l O2	D O Mg/l O2	OrthoP (mg/l)	pH	Temperture deg C	Total Nitrogen (mg/l)
12/02/2013	0.1092	<1	10.93	0.05	7.985	6.8	5
13/08/2013	2.86	15.6	3.5	0.8	7.69	16.5	5.4
17/10/2013	0.12	30.66	8.43	0.75	7.8	12.3	1
19/11/2013	0.01	0.3	11.1	0.023	8.027	6.2	4.4
Max Value	0.77	15.52	8.49	0.41	7.88	10.45	3.95
Average Value	2.45	29.15	11.07	0.79	8.02	15.87	5.34

Table 7: Ambient monitoring at aSW-Id downstream of SW I (216434E, 128346N)

Sample Date	Ammonia mg/l as N	BOD mg/l O2	D O Mg/l O2	OrthoP (mg/l)	pH Value	Temperature deg C	Total Nitrogen (mg/l)
12/02/2013	0.098	<1	10.72	0.05	7.936	6.7	3.2
13/08/2013	0.33	1.3	3.7	0.072	7.4	16.5	2
17/10/2013	0.24	4.55	4.36	0.116	7.56	12.1	3.2
19/11/2013	0.04	0.43	9.9	0.116	7.937	5.6	4.9
Max Value	0.177	2.0933	7.17	0.0885	7.708	10.225	3.325
Average Value	0.3165	4.225	10.597	0.116	7.937	15.84	4.645

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	216318E, 128307N	TBC	No
aSW-ID downstream of SW1	216434E, 128346N	TBC	No

Small Stream Risk Score (SSRS):

An SSRS was carried out in 2013, the results of which are presented below.

Ballyclerihan WWTP SSRS Scoring	SSRS Score
Upstream	4
Downstream	4

The results above show that there is no deterioration to the SSRS score downstream from the effluent discharge point.

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)

This information has been submitted electronically to the EPA. Both the AER/PRTR Emissions Data information (i.e all relevant worksheets including the Facility ID and Activities sheet) for the Ballyclerihan Agglomeration has been printed out and included in this AER -see Appendix A attached.

3.0 OPERATIONAL REPORTS SUMMARY.

3.1 Treatment Efficiency Report

Presented below is a summary of the efficiency of the treatment process including the percentage reductions in influent loads for parameters specified in the licence.

Table 9: Treatment Efficiency Report Summary Table

	cBOD 5d with nitrification inhib	Chemical Oxygen Demand (COD)	Suspended Solids	Ammonia Nitrogen (as N)	Total Phosphorus (as P)	Total Nitrogen (as N)
Influent mass loading (Kg/day)	51.5	112.4	54	6.23	1.41	8.98
Effluent mass emission (Kg/day)	0.20	1.4	0.44	0.01	0.04	0.6
% Efficiency (% reduction of influent load)	99.6%	98.8%	99%	99%	97%	93%

3.2 Treatment Capacity Report

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

Table 10: Treatment Capacity Report Summary Table

Hydraulic Capacity – Design	449 m3 /day
Hydraulic Capacity – Current Loading	108 m3 /day
Hydraulic Capacity – Remaining	331 m3 / day
Organic Capacity – Design (pe)	2,000 pe
Organic Capacity – Current Loading (pe)	774 pe
Organic Capacity – Remaining (pe)	1,226 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 Ballyclerihan 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

3.2 Reported Incidents Summary

There was one recorded incident in relation to an exceedence of Soluble Reactive Phosphorus at the Ballyclerihan Wastewater Treatment Plant in 2013. This was reported to the EPA via EDEN.

Table 12: Incidents Summary

Date and Time	Incident Description	Cause	Corrective Action	Authorities Contacted	Reported to EPA	Closed (Y/N)
2013	Ortho P Exceedence	High influent and ferric dosing fault.	Dosing unit repaired	STCC	Yes	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.	One
Explanation of any discrepancies between the Two numbers above.	N/A

4.0 INFRASTRUCTURAL ASSESSMENT & PROGRAMME OF IMPROVEMENTS

4.1 Report on Storm Water overflow identification and inspection.

This report was compiled and submitted to the EPA in the 2011 AER submission. A summary report is detailed in table No 14 below.

Table 14: SWO Identification and Inspection Summary Report Table

Is each SWO Identified as non complaint with DoEHLG included in the Programme of Improvements	No SWO Identified as non-complaint
Does the SWO assessment include the requirements of Schedule A3 and C3	No Improvement works specified in the Licence
Has the EPA been advised of any additional SWO's / changes to Schedule CE and A4 under Condition 1.7	No additional SWO's / changes to Schedule C3 and A4 under Condition 1.7 required or identified.

4.2 Report on progress made and proposals to meet the Improvement Programme Requirements

There are no Improvement Works requirements specified in Schedule C of the Discharge Licence and there are no proposals in respect of any future improvement works developed at this time.

4.3 Sewer Integrity Risk Assessment.

A Sewer Integrity Risk Assessment for this agglomeration was completed in this reporting period and is attached in Appendix B. A summary of the risk assessment is presented in table 15 below.

Funding is being sought through budget submissions for 2014 for funds that will allow a more comprehensive and detailed assessment to the standards set out in the Sewer Integrity Risk Assessment Tool facility.

Table 15: Summary of Sewer Integrity Risk Assessment:

Element	Risk Ass Score	Risk Category	% Risk Score	Max Risk Score
Section 2.1 Hydraulic Risk Assessment	145	High	97 %	150
Section 3.1 Env Risk Assessment	115	Low	23 %	500
Section 4.1 Structural Risk Assessment	150	High	100 %	150
Section 5.1 O and M Risk Assessment	16	Low	8%	200
Total RAS for Network	426	High	43 %	1000

5.0 LICENCE SPECIFIC REPORTS

5.1 Priority Substances Assessment

The requirement for a risk based assessment to identify the possible presence of priority substances is not specifically set out in the Discharge Licence. However the licensee has prepared and submitted to the Agency (EPA) the PRTR report for 2013 – see attached Appendix A.

5.2 Outstanding Reporting Requirements (Previous AER's)

5.2.1 Monitoring Results (2012)

Presented below are the monitoring results for Conductivity that were omitted from the 2012 AER report submission. All monitoring results for Conductivity for 2013 are included in this AER submission. The results for Conductivity for 2012 would have been submitted electronically to the EPA. Results for OFG and Faecal Coliform for 2013 are also included in this AER submission. The inclusion of these parameters should ensure all future reporting requirements in respect of the discharge are met.

Monitoring Results for Conductivity (@25deg C) for 2012:

Date	Conductivity (Us/cm)	Date	Conductivity (Us/cm)
10/01/2012	714	05/07/2012	520
07/02/2012	904	21/08/2012	624
13/03/2012	869	04/09/2012	901
11/04/2012	712	02/10/2012	776
01/05/2012	739	06/11/2012	634
14/06/2012	618	11/12/2012	787

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 D0455-01 in respect of the Ballyclerihan 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

1. FACILITY IDENTIFICATION

Parent Company Name	South Tipperary County Council
Facility Name	Ballyclerhan
PRTR Identification Number	D0455
Licence Number	D0455-01

Waste or IPPC Classes of Activity

No.	class_name
30.4	General

Address 1	County Hall
Address 2	Clonmel
Address 3	County Tipperary
Address 4	
	Tipperary
Country	Ireland
Coordinates of Location	-7.75927 52.4085
River Basin District	IESE
NACE Code	3700
Main Economic Activity	Sewerage
AER Returns Contact Name	Denis Holland
AER Returns Contact Email Address	denis.holland@southlippoco.ie
AER Returns Contact Position	Senior Engineer
AER Returns Contact Telephone Number	052 81 34410
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	052 81 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	Improved plant performance resulting in lower average final effluent values together with lower hydraulic loading gave lower total loads for 2013 compared to 2012 for TN,BOD,COD,SS,Ammonia. Higher TP Influent resulted in higher total loads for TP and Ortho P for 2013 compared with 2012.
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
5(0)	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

PRTR#: D0559 | Facility Name: Bell's Linnas | Emissions: Q0452_2013.xls | Report Year: 2013

D0532014 11:33

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

No. Annex 8	POLLUTANT	Name	MIOE	Method Code	Designation or Description	Emission Point 1			QUANTITY		
						T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
34	1,2-dichloroethane (EDC)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
35	Alcohol		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
36	Aldrin		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
37	Anthracene		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
38	Aromatic and compounds (as Au)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
39	Arsenic		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
40	Benzene		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
41	Benzo(a)pyrene		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
42	Brominated diphenyls (PBDE)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
43	Cadmium and compounds (as Cd)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
44	Chloride		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
45	Chloroacetic acid		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
46	Chloroethane		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
47	Chloroform		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
48	Chlorobenzene		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
49	Chloro-olefins, C10-C13		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
50	Chlorophenol		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
51	Chromium and compounds (as Cr)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
52	Copper and compounds (as Cu)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
53	Cyanides (as total CN)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
54	DDE		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
55	D-C-ethyl hexyl ketone (DEHP)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
56	Dichloromethane (DCM)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
57	Dieldrin		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
58	Diuron		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
59	Endosulfan		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
60	Endrin		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
61	Ethyl benzene		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
62	Fluoridic acid		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
63	Fluorides (as total F)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
64	Halogenated organic compounds (as F-Ox)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
65	Heptachlor		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
66	Hexachlorobiphenyl		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
67	Hexachlorobenzene (HCB)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
68	Hexachlorocyclopentadiene (HCCCP)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
69	Iodine		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
70	Isoprene		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
71	Lead and compounds (as Pb)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
72	Mercury and compounds (as Hg)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
73	Mirex		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
74	Naphthalene		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
75	Nickel and compounds (as Ni)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
76	Nonylphenol and Nonylphenol ethoxylates (NPEs)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
77	Octylphenol and Octylphenol ethoxylates		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
78	Organotin compounds (as total Sn)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
79	Parachlorobenzene		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
80	Permethrin (PCP)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
81	Phenols (as total C)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
82	Polychlorinated biphenyls (PCBs)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
83	Polycyclic aromatic hydrocarbons (PAHs)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
84	Simazine		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
85	Tetrachloroethylene (PER)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
86	Tetrachloroethane (TCM)		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
87	Toluene		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
88	Total nitrogen		M	OTH	EPA WWTP Tool	219.0	0.0	0.0	219.0	0.0	0.0
89	Total organic carbon (TOC) (as total C or COD-3)		M	OTH	EPA WWTP Tool	14.6	0.0	0.0	14.6	0.0	0.0
90	Total phosphorus		M	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
91	Toxaphene		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0
92	Trihalogenated compounds		E	OTH	EPA WWTP Tool	0.0	0.0	0.0	0.0	0.0	0.0

Please enter all quantities in this section in KGs

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	H2O Waste: Name and Licence/Permit No of Receiving Party H2O Waste: Name and Licence/Permit No of Licensed Disposer	H2O Waste: Address of Non-H2O Waste: Address of Receiving/Disposer	Name and Licence/Permit No. and Address of Final Recovery/Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination (i.e. Final Recovery/Disposal Site) (HAZARDOUS WASTE ONLY)
					Waste Treatment Operation	IMCIE	Method Used	Method Used					
Within the Country	19 08 01	No	1.17	screenings sludges from treatment of urban waste	D8	M	M	Weighted	Offsite in Ireland	Mr Luddenmore, Grange, Kilmalock, Co. Limerick, Ireland			
Within the Country	19 08 05	No	8.85	water sludges from treatment of urban waste	D8	M	M	Weighted	Offsite in Ireland	Blrman, WFP/LK/2008/100 Clonmel, Co. Tipperary, Ireland			
Within the Country	19 08 05	No	1.73	water sludges from treatment of urban waste	D8	M	M	Weighted	Offsite in Ireland	Fethard, Co. Tipperary, Ireland			
Within the Country	19 08 05	No	2.8	water sludges from treatment of urban waste	D8	M	M	Weighted	Offsite in Ireland	OD Recycling, WFP-TS-10-0002-02 Ballyboe, Kilsheelan, Clonmel, Co. Tipperary, 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		Ballyclerihan DO455-01				
Name						
Licence Number						
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		10/06/2010				
Current Date		28/02/2014				
Waste Water Works - Wastewater Treatment Plant Details		Unit	Year 2013	Year 2015	Year 2018	Year 2021
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	108000			
1.3	Average Daily Influent BOD or Average BOD Load from area served (If no measured data exists, insert estimated figure)	mg/l, measured	429			
1.4	Total BOD Load	kg/day	46,332			
1.5	Average Population Equivalent (@0.06ka/person/day)	p.e.	772			
1.6	Estimated (existing) Non-Domestic Load	p.e.	20			
1.7	Estimated Domestic Load	p.e.	752			
1.8	Occupancy Rate for the Agglomeration	pop/house	2.92			
1.9	Estimated Number of Connected Properties	houses	258			
1.10	Number of properties within the agglomeration when compared with CSO Data or An Post Geodirectory	houses	241			
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	0.89			
1.12	Estimated 3DWF	l/sec	2.67			
1.13	Annual Average Peak Flow to WWTP or discharging from whole system if there is no existing WWTP	l/s, measured	3.64			
1.14	This Annual Average Peak as Multiples of Dry Weather Flow (Peaking)	Nr	4.09			
1.15	Highest Peak Flow Recorded (Insert UNKNOWN if no records exist)	l/s	5.47			
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			
1.19.1	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	112.32			
1.20	Is the capacity of the storm tank sufficient to capture and retain all overflows to the tank ?	---	No	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	15			
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)		< 1 per month	< 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		Mapdrain	SUS 2001	SUS 2002	SUS 2003
1.23.1	If other or combination of the above please describe	Describe				
1.24	Total length of sewers (use drop down menus to define whether these figures are estimated or measured)	km Estimated	4.50	0.00	0.00	0.00
1.24.1	Total length of sewers > 450mm Diameter	km Estimated	0.00			
1.24.2	Total length of sewers > 300mm but ≤ 450mm in Diameter	km Estimated	0.80			
1.24.3	Total length of sewers > 225mm but ≤ 300mm in Diameter	km Estimated	1.20			
1.24.4	Total length of sewers ≤ 225mm in Diameter	km Estimated	2.50			
1.24.5	Other	km Estimated	0.25			
1.25	Pipeline Material					
1.25.1	What portion of the sewer network consists of Concrete Pipes	% Estimated	25%			
1.25.2	What portion of the sewer network consists of Plastic Pipes	% Estimated	75%			
1.25.3	What portion of the sewer network consists of Clay materials	% Estimated	0%			
1.25.4	What portion of the sewer network consists of Brick Type Sewers	% Estimated	0%			
1.25.5	What portion of the sewer network consists of Other Materials	% Estimated	0%			
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	2			
1.27	What Screening or other mechanical devices are employed at the storm water overflows	Describe				
1.27.1	SWO No. SW2 located at Storm Tank at WWTP	Describe	SWO from storm tank at WWTP			
	SWO No. SW3 located at PS at WWTP	Describe	SWO from PS at WWTP			
1.28	Water Quality at the receiving waters	Poor				

1.28.1	Where the receiving water is a river - indicate the EPA Biological Rating of the Receiving Water for each SWO below (Particularly if there is more than one receiving water within the agglomeration)				
	SWO No. SW2 located at Storm Tank at WWTP	Describe	Q1		
	SWO No. SW3 located at PS at WWTP	Describe	Q1		
1.28.2	Where the receiving water is a coastal water indicate the Status of the Receiving Water for each SWO below (Particularly if there is more than one receiving water within the agglomeration)				
		Describe	N/A		
1.28.3	With reference to the SWO's detailed above define if the receiving waters are sensitive in accordance with the Urban Wastewater Treatment Regulations as amended.				
	SWO No. SW2 located at Storm Tank at WWTP	Describe	Sensitive		
	SWO No. SW3 located at PS at WWTP	Describe	Sensitive		
1.28.4	With reference to the SWO's detailed above define are the receiving waters Protected Areas (designated or awaiting designation) .				
		Designation	n/a		
1.28.5	With reference to the SWO's detailed above define do the receiving waters have any other designations.				
		Designation	Not Listed		
Section 1.5 Waste Water Works - Pumping Stations					
1.29	Number of Pumping Stations (operated by the Local Authority)	Nr	2		
1.30	Total Length of Rising Mains (operated by the Local Authority)	km	1		
1.31	Rising Main Material				
1.31.1	What portion of the rising mains consists of ductile iron pipes	% Estimated	0.00		
1.31.2	What portion of the rising mains consists of plastic pipes	% Estimated	100.00		
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 1 at Hillview Housing Estate	l/sec	5		
	At Pump Station 2 at Fernville Housing Estate	l/sec	5		
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%)	%	0.00%		
1.34	Available Storage Capacity at Pump Stations				
	At Pump station 1 at Hillview Housing Estate	m ³	10		
	At Pump Station 2 at Fernville Housing Estate	m ³	10		
1.35	Total Number of "Licenced Secondary Discharge Points and Stormwater Overflows" at pumping stations	Nr	0		
1.36	Total Number of "Emergency Overflow Points" at pumping stations	Nr	2		
1.37	What Screening or other mechanical devices are employed at the secondary discharge points or emergency overflows ?				
	At Pump station 1 at Hillview	Describe	None		
	At Pump Station 2 at Fernville	Describe	None		
1.38	Water Quality at the receiving waters at each pumping station location	Describe			
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 1 at Hillview	Describe	N/A		
	At Pump Station 2 at Fernville	Describe	N/A		
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 at Hillview	Describe	N/A		
	At Pump Station 2 at Fernville	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 1 at Hillview	Describe	Not Listed		
	At Pump Station 2 at Fernville	Describe	Not Listed		
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 1 at Hillview	Designation	n/a		
	At Pump Station 2 at Fernville	Designation	n/a		

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 at Hillview	Designation	Not Listed			
	At Pump Station 2 at Fernville	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	2			
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 General Services Supervisor with assistance of General Operative as required. Also contracted sewer clean and jetting Contractor as 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	None					
1.56.2						
Section 1.9 Licence Specified Improvements Works						
1.57	None					
Section 1.10 Other Updates Since Last Report						
1.58	None					
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	<u>Has a Hydraulic Performance Assessment been undertaken for the Sewer Network (e.g., Computer Model or other Engineering Design or Design Review) ?</u>	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 ongoing works select "less than 5".
2.2	<u>Has a Dynamic Computer Model been used to Assess the Hydraulic Performance of the Sewer Network ?</u>	No	10		Computer Model means a Hydroworks/Infoworks Model, Micro-Drainage Model or equivalent.
2.3	<u>Has a Manhole Survey been undertaken in accordance with WRc Documentation "Model Contract Document for Manhole Location Surveys and the Production of Record Plans" ?</u>	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?	more than 10	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	<u>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" ?</u>	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	<u>What was this Flow Survey Information Used for ?</u>				
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	<u>Have Performance Criteria been developed to determine the short, medium or long term capacity of the sewer network ?</u>	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	<u>How many flood events resulting from surcharge in the network have occurred in the past 3 years?</u>	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	<u>Are there deficiencies in performance criteria within the sewer network ?</u>	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	<u>Have the causes of these deficiencies in the Performance Criteria been identified and rectified ?</u>	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	<u>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</u>	No	10		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	<u>Has an Impermeable Area Survey been carried out for the agglomeration or parts of the agglomeration ?</u>	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)			145		
2.12	<u>Prepare Assessment of Needs & Sewer Upgrade Implementation Plan</u>	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>	No	0		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>	No	0		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>	N/A	0		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>	N/A	0		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>	N/A	0		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>	N/A	0		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>	N/A	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>	No	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>	No	40		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>	N/A	0		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)			115		
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	<u>Has a CCTV Survey been undertaken in accordance with WRC Documentation "Model Contract Document for Sewer Condition Inspections" and "Manual of Sewer Condition Classification" ?</u>	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	<u>What was this CCTV Survey Information Used for?</u>	N/A	10		Select N/A if answer to Query 4.1 is NO.
4.3	<u>Has the CCTV Survey been used to Assess the Structural Condition of the Sewer Network or targeted sections of the Sewer Network?</u>	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	<u>Have Performance Criteria been developed to determine the short, medium or long term structural condition of the sewer network ?</u>	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	<u>What % of the deficiencies, as detailed in Items 4.4.1, 4.4.2 and 4.4.3, have been rectified ?</u>	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	<u>Have the causes of the Structural Deficiencies (Grades 3, 4 and 5) been identified or is there a Preventative Maintenance Programme in place?</u>	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	<u>Prepare Assessment of Needs & Sewer Rehabilitation Implementation Plan</u>	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>	None	0		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>	None	0		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 - 0.01/km/yr	4		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>	None	0		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>	Once/yr	4		Select the highest number of events in any 12 month period.
Total Risk Assessment Score (RAS)			16		
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	145	High Risk	97%	150
Section 3.1 Environmental Risk Assessment	115	Low Risk	23%	500
Section 4.1 Structural Risk Assessment	150	High Risk	100%	150
Section 5.1 O&M Risk Assessment	16	Low Risk	8%	200
Total RAS for Network	426	High Risk	43%	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"