



KILDARE COUNTY COUNCIL

Comhairle Chontae Chill Dara

ROBERTSTOWN WASTEWATER AGGLOMERATION

ANNUAL ENVIRONMENTAL REPORT

2013

LICENCE D0234-01

Water Services Section
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Table of Contents

Section 1. Executive Summary and Introduction to the 2013 AER	4
1.1 Summary report on 2013	4
Section 2. Monitoring Reports Summary	5
2.1 Summary report on monthly influent monitoring	5
2.2 Discharges from the agglomeration	5
2.3 Ambient monitoring summary	6
2.4 Data collection and reporting requirements under the Urban Wastewater Treatment Directive	7
2.5 Pollutant Release and Transfer Register (PRTR) – report for previous year	7
Section 3. Operational Reports Summary	7
3.1 Treatment Efficiency Report	7
3.2 Treatment Capacity Report	8
3.3 Extent of Agglomeration Summary Report	9
3.4 Complaints Summary	10
3.5 Reported Incidents Summary	10
3.6 Sludge / Other Inputs to the WWTP	11
Section 4. Infrastructural Assessments and Programme of Improvements	11
4.1 Storm water overflow identification and inspection report	11
4.2 Report on progress made and proposals being developed to meet the improvement programme requirements	12
Section 5. Licence Specific Reports	13
5.1 Priority Substance Assessment	13
5.2 Drinking Water Abstraction Point Risk Assessment	13
5.3 Shellfish Impact Assessment Report	13
5.4 Toxicity / Leachate Management	13

5.5 Toxicity of the Final Effluent Report	13
5.6 Pearl Mussel Measures Report	14
5.7 Habitats Impact Assessment Report	14
Section 6. Certification and Sign Off	14
Section 7. Appendix	15

Section 1. Executive Summary and Introduction to the 2013 AER

1.1 Summary report on 2013

The design capacity of the Robertstown agglomeration is 1000PE, a BOD design limit of 20mg/l and a suspended solids design limit of 30mg/l.

The treatment plant is comprised of inlet works, oxidation ditch, phosphorous removal system, clarifier and sludge holding tank. There are two pumping stations located within the agglomeration. The Robertstown WWTP agglomeration drains by gravity to discharge.

The wastewater discharge licence for the Robertstown agglomeration was granted on February 28th 2011 under the Waste Water Discharge Regulations of 2007. This is the third AER presented to the EPA since the licence was granted.

Overall the performance of the plant is satisfactory with no ELV exceedances in 2013. New flow metres and new inlet screens were installed in 2013.

There were no complaints recorded on our database for 2013 in relation to the Robertstown WWTP, nor were there any incidents recorded.

River quality AA-EQS for BOD was achieved downstream of the plant. River quality AA-EQS for total ammonia and ortho P failed to achieve river quality standards. However, it should be noted that river quality for these two parameters were also exceeded upstream

Section 2. Monitoring Reports Summary

2.1 Summary report on monthly influent monitoring

Influent monitoring is carried out on a monthly basis in accordance with the license. Table 2.1.1 below shows the annual maximum and annual mean results for BOD, COD, SS, Ammonia, Total N, Total P and Ortho P.

	BOD (mg/l)	COD (mg/l)	SS (mg/l)	Ammonia (mg/l)	Total N (mg/l)	Total P (mg/l)	Ortho P (mg/l)	Hydraulic Loading (m3/day)	Organic Loading (PE/day)
Number of Samples	12	12	12	12	12	12	12		
Annual Max.	292	1294	636	73.5	100	14.2	6.15	328	959
Annual Mean	179	524	205	30	53	7	4.2	219	653

Table 2.1.1

The influent monitoring results are typical of Roberstown WWTP. Please note however that the above is merely an average assessment based on monthly composite sampling. A proper 7-day loading assessment has not been carried out at Robertstown wwtp since 2008, whereby the agglomeration loading was found to be 1042pe, which is significantly higher than the 653pe referred to above.

2.2 Discharges from the agglomeration

Table 2.2.1 below presents a summary of the effluent monitoring data. There was full compliance in 2013 with regard to monitoring frequency set out in Schedule B.1 and also ELV's as set out in Schedule A of the licence. All samples are 24 hour composite samples.

	BOD (mg/l)	COD (mg/l)	TSS (mg/l)	Amm onia (mg/l)	Total P (mg/l)	Ortho P (mg/l)	Comment
WWDL ELV (Schedule A)	20	125	35	2	1.7	0.8	
ELV with Condition 2 Interpretation included	40	250	87.5	2.4	2.04	0.96	
Number of sample results	12	12	12	12	12	12	Monthly composite sample
Number of sample results above WWDL ELV	0	0	0	0	0	0	No exceedances in 2013
Number of sample results above ELV with Condition 2 Interpretation included	0	0	0	0	0	0	No exceedances in 2013
Annual Mean (for parameters where a mean ELV applies)	3	18	2	0.5	0.5	0.3	
Overall Compliance (Pass/Fail)	PASS	PASS	PASS	PASS	PASS	PASS	

Table2.2.1

The overall passing compliance for Robertstown WWTP indicates that the plant is operating well with a good quality final effluent being produced.

2.3 Ambient monitoring summary

The River Slate is monitored according to Schedule B of the licence. Analytical results for 2013 will be submitted electronically as part of the UWWR returns to the EPA.

Ambient Monitoring Point from WWDL (or as agreed with EPA)	Irish Grid Reference	EPA Feature Coding Tool code	Does assessment of the ambient monitoring results indicate that the discharge is impacting on water quality
ASW1-PU	278554.7E, 225905N	RS14S010031	No
ASW1-PD	278076E, 225792N	RS14S010036	No

Table 2.3.1

Table 2.3.2 is a comparison of the annual mean ambient results and the EQS as sated in the European Communities Environmental Objectives (Surface Water) Regulations, SI 272 of 2009.

Parameter	Annual Mean ASW1-PU	Annual Mean ASW1-PD	AA-EQS (mean)
BOD (mg/l)	1.3	1.3	High \leq 1.3 Good \leq 1.5
Total Ammonia (mg/l N)	0.15	0.18	High \leq 0.04 Good \leq 0.065
Ortho P (mg/l P)	0.1	0.12	High \leq 0.025 Good \leq 0.035

Table 2.3.2

River quality AA-EQS for BOD was achieved downstream of the plant. Total ammonia and ortho P failed to achieve river quality standards. However, it should be noted that river quality for these two parameters were also exceeded upstream. In order to achieve good status these parameters will require a reduction in upstream concentrations.

The average dissolved oxygen concentration was 9.43mg/l upstream of the agglomeration and 9.54mg/l downstream. The frequency of D.O. monitoring was carried out in accordance with Schedule B.4 of the licence.

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

The annual urban wastewater discharge for the Robertstown agglomeration will be submitted electronically on or before February 26th 2014.

2.5 Pollutant Release and Transfer Register (PRTR) - report for previous year

PRTR not required for 2013.

Section 3 Operational Reports Summary

3.1 Treatment Efficiency Report

Table 3.1.1 depicted below outlines the treatment efficiency for each parameter. Overall, the percentage reduction of the influent load is satisfactory with efficiencies ranging from 84.62% to 99.07%.

	cBOD (kg/day)	COD (kg/day)	SS (kg/day)	Ammonia (kg/d)	Total N (kg/day)	Total P (kg/day)	OrthoP (kg/d)	Comment
Influent mass loading (kg/day)	39	115	45	6.5	11.5	1.5	0.9	
Effluent mass emission (kg/day)	0.6	3.9	0.4	0.1	3.2	0.1	0.07	
% Efficiency (% reduction of influent load)	98.47	96.61	99.11	98.46	72.17	93.33	92.22	

Table 3.1.1

3.2 Treatment Capacity Report

3.2.1 Hydraulic Treatment Capacity

There is a remaining hydraulic treatment capacity of 6m³/day. The treatment works are sufficient to manage volumetric flows to licence requirements.

3.2.2 Organic Treatment Capacity

The organic capacity of the plant, as designed, is 1,000 P.E. The average P.E. is 653, leaving a remaining organic capacity of 347 P.E. please refer to comments made in section 2.1 however in relation to plant loading.

Hydraulic Capacity – Design / As Constructed (m3/day)	225
Hydraulic Capacity – Current loading (m3/day)	219
Hydraulic Capacity – Remaining (m3/day)	6
Organic Capacity - Design / As Constructed (PE)	1000
Organic Capacity - Current loading (PE)	653
Organic Capacity – Remaining (PE)	347
Will the capacity be exceeded in the next three years? (Yes / No)	No

3.3 Extent of Agglomeration Summary Report

	% of total load generated in the agglomeration
Load generated in the agglomeration that is collected in the sewer network	No data
Load collected in the agglomeration that enters the treatment plant	No data
Load generated in the agglomeration going to individual and appropriate treatment systems	No data
Load generated in the agglomeration that is not collected and not individually treated	No data

3.4 Complaints Summary

Kildare County Council has a documented complaints procedure in place. There were no complaints received in relation to this agglomeration in 2013.

Robertstown Licence D0493-01	Date	Nature of Complaint	Cause of Complaint	Actions taken to resolve issue	Closed (Y/N)

3.5 Reported Incidents Summary

There were no reported incidents for the agglomeration for 2013.

Date & Time	Incident Description	Cause	Corrective Action	Authorities Contacted	Reported to EPA (Yes/No)	Closed (Y/N)
n/a	n/a	n/a	n/a	n/a	n/a	n/a

Number of Incidents in 2013	0
Number of Incidents reported to the EPA via EDEN in 2013	0
Explanation of any discrepancies between the two numbers above	n/a

3.6 Sludge / Other Inputs to the WWTP

Input type	m3/year	PE/year	% of load
Domestic /Septic Tank Sludge	n/a	n/a	n/a
Industrial / Commercial Sludge	n/a	n/a	n/a
Landfill Leachate (delivered by tanker)	n/a	n/a	n/a
Landfill Leachate (delivered by sewer network)	n/a	n/a	n/a
Other (specify)	n/a	n/a	n/a

Section 4. Infrastructural Assessments and Programme of Improvements

4.1 Storm water overflow identification and inspection report

WWDL Name / Code for Storm Water Overflow	Irish Grid Reference	Included in Schedule A4 of the WWDL	Compliance with DoEHLG Criteria	No. of times activated in 2013 (No. of events)	Total volume discharged in 2013 (m3)	Total volume discharged in 2013 (P.E.)	Estimated /Measured data
SW-2	278591E 225810N	Yes	Not compliant	Unknown	Unknown	Unknown	

Table 4.1.1

How much sewage was discharged via SWOs in the agglomeration in the year (m3/yr)?	No SWO data
How much sewage was discharged via SWOs in the agglomeration in the year (p.e.)?	No SWO data
What % of the total volume of sewage generated in the agglomeration was discharged via SWOs in the agglomeration in 2013?	No SWO data
Is each SWO identified as non-compliant with DoEHLG Guidance included in the Programme of Improvements?	n/a
The SWO assessment includes the requirements of Schedule A3 & C3	Yes
Have the EPA been advised of any additional SWOs / changes to Schedule C3 and A4 under Condition 1.7?	n/a

Table 4.1.2

4.2 Report on progress made and proposals being developed to meet the improvement programme requirements.

There is no specified improvement programme listed in schedule C.1 and C.2 of the licence. In 2013 Kildare County Council employed the services of a competent consulting engineering company to carry out a detailed study on the Operational and Infrastructural Improvements required at a number of wwtp's throughout the County, including at Robertstown WWTP. Final report is due to be received by end of Q1 2014.

Future Improvement works are subject to Irish Water approval and funding.

Section 5. Licence Specific Reports

Licence Specific Report	Required in 2013 AER or outstanding from previous AER	Included in 2013 AER	Reference to relevant section of AER (e.g. Appendix 2 Section4.
Priority Substances Assessment	No	n/a	
Drinking Water Abstraction Point Risk Assessment	No	n/a	
Habitats Impact Assessment	No	n/a	
Shellfish Impact Assessment	No	n/a	
Pearl Mussel Report	No	n/a	
Toxicity/Leachate Management	No	n/a	
Toxicity of Final Effluent Report	No	n/a	

5.1 Priority Substances Assessment

Not applicable.

5.2 Drinking Water Abstraction Point Risk Assessment.

Not applicable.

5.3 Shellfish Impact Assessment Report.

Not applicable.

5.4 Toxicity / Leachate Management

Not applicable.

5.5 Toxicity of the Final Effluent Report

Not applicable.

5.6 Pearl Mussel Measures Report

Not applicable.

5.7 Habitats Impact Assessment Report

Not applicable.

Section 6. Certification and Sign Off

Pursuant to the provisions of the Waste Water Discharge (Authorisation) Regulations, 2007, I hereby submit the 2013 Annual Environmental Report (AER) for the Robertstown Agglomeration (Licence Register Number: D0234-01).

Does the AER include an executive summary?	Yes
Does the AER include an assessment of the performance of the Waste Water Works?	Yes
Is there a need to advise the EPA for consideration of a technical amendment / review of the licence?	No
Reason	N/A
Is there a need to request / advise the EPA of any modifications to the existing WWDL?	No
Reason	N/A
Have these processes commenced?	N/A
Are all outstanding reports and assessments from previous AERs included as an appendix to this AER?	N/A
List outstanding reports	N/A

I certify that the information given in this AER is truthful, accurate and complete.

Signed by: Colm PLYNN A/SE

(On behalf of the organisation)

Print signature name: COLM PLYNN

Position in organisation: ACTING SENIOR ENGINEER

Date: 28/2/14

