

Annual Environmental Report

2019



Rathmullen

D0345-01

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1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2019 AER

This Annual Environmental Report has been prepared for D0345-01, Rathmullen, in Donegal in accordance with the requirements of the wastewater discharge licence for the agglomeration. Specified reports where relevant are included as an appendix to the AER.

1.1 ANNUAL STATEMENT OF MEASURES

A summary of any improvements undertaken is provided where applicable.

Rathmullan WWTP is included in the Irish Water Capital Investment Programme 2018 - 2021.

1.2 TREATMENT SUMMARY

- Currently there is no treatment provided at Rathmullen. Please refer to section 4 for details of the Programme of Improvements.
- Please note that the agglomeration has two septic tanks. However from 2018, this agglomeration was considered untreated discharge with a plant capacity of 0 PE, due to the inadequate primary treatment provided.

1.3 ELV OVERVIEW

The overall compliance of the final effluent with the Emission Limit Values (ELVs) is shown below. More detailed information on the below ELV's can be found in Section 2.

Discharge Point Reference	Treatment Plant	Discharge Type	Compliance Status	Parameters failing if relevant
TPEFF0600D0345SW002	Rathmullan Septic Tank Nr. 2	Untreated	Non-Compliant	BOD and Suspended Solids
TPEFF0600D0345SW001	Rathmullan Septic Tank Nr. 1	Untreated	Non-Compliant	BOD and Suspended Solids

1.4 LICENCE SPECIFIC REPORTING INCLUDED IN AER

Assessment / Report	Included in AER
There are no Licence Specific Reports included in the AER.	

2 TREATMENT PLANT PERFORMANCE AND IMPACT SUMMARY

2.1.1 EFFLUENT MONITORING SUMMARY – SEPTIC TANK NR. 2

Parameter	WWDL ELV (Schedule A)	ELV with Condition 2 Interpretation included Note 1	Interim % reduction from influent concentration	Number of sample results	Number of exceedances	Number of with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l	N/A	N/A	20% Reduction	6	6	N/A	184	Fail
Enterococci (Intestinal) cfu/100ml	N/A	N/A	N/A	5	N/A	N/A	158960	
E. Coli MPN/100ml	N/A	N/A	N/A	5	N/A	N/A	9846000	
ortho-Phosphate (as P) - unspecified mg/l	N/A	N/A	N/A	6	N/A	N/A	3.53	
Conductivity 20 C μS/cm	N/A	N/A	N/A	7	N/A	N/A	684.43	
Faecal coliforms cfu/100ml	N/A	N/A	N/A	5	N/A	N/A	2772360	
Ammonia-Total (as N) mg/l	N/A	N/A	N/A	6	N/A	N/A	34.92	

Suspended Solids mg/l	N/A	N/A	50% Reduction	6	6	N/A	139.17	Fail
COD-Cr mg/l	N/A	N/A	N/A	6	N/A	N/A	466.17	
pH pH units	N/A	N/A	N/A	7	N/A	N/A	7.3	

Notes:

1 – This represents the Emission Limit Values after the Interpretation provided for under Condition 2 of the licence is applied

Cause of Exceedance(s):

Discharge is considered untreated due to inadequate primary treatment provided.

Significance of Results:

The WWTP is not compliant with the ELV's set in the Wastewater Discharge Licence. The impact on receiving waters is assessed further in Section 2.

2.1.2 AMBIENT MONITORING SUMMARY FOR THE UNTREATED DISCHARGE TPEFF0600D0345SW002

A summary of monitoring from ambient monitoring points associated with the wastewater discharge is provided in the sections below. For discharges to rivers upstream (U/S) and downstream (D/S) location data is provided. For other ambient points in lakes, coastal or transitional waters, monitoring data from the most appropriate monitoring station is selected.

The table below provides details of ambient monitoring locations and details of any designations as sensitive areas.

Ambient Monitoring Point from WWDL (or as agreed with EPA)	Irish Grid Reference	River Station Code	Bathing Water	Drinking Water	FWPM	Shellfish	WFD Status
The ambient monitoring results and are included in the Appendix 7.1 - Ambient monitoring summary							

Significance of Results:

The WWTP discharge was non-compliant with the ELV's set in the wastewater discharge licence.

The ambient monitoring results do meet the required EQS. The EQS relates to the Oxygenation and Nutrient Conditions set out in the Surface Water Regulations 2009.

The discharge from the wastewater treatment plant does not have an observable impact on the water quality.

The discharge from the wastewater treatment plant does not have an observable negative impact on the Water Framework Directive status.

2.1.3 EFFLUENT MONITORING SUMMARY – SEPTIC TANK NR. 1

Parameter	WWDL ELV (Schedule A)	ELV with Condition 2 Interpretation included Note 1	Interim % reduction from influent concentration	Number of sample results	Number of exceedances	Number of with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l	N/A	N/A	20% Reduction	6	6	N/A	149.32	Fail
Ammonia-Total (as N) mg/l	N/A	N/A	N/A	6	N/A	N/A	39.66	
ortho-Phosphate (as P) - unspecified mg/l	N/A	N/A	N/A	6	N/A	N/A	4.42	
Suspended Solids mg/l	N/A	N/A	50% Reduction	6	6	N/A	144.6	Fail
E. Coli MPN/100ml	N/A	N/A	N/A	5	N/A	N/A	8046200	

pH pH units	N/A	N/A	N/A	7	N/A	N/A	7.81	
Enterococci (Intestinal) cfu/100ml	N/A	N/A	N/A	5	N/A	N/A	244960	
Conductivity 20 C μS/cm	N/A	N/A	N/A	7	N/A	N/A	772.15	
COD-Cr mg/l	N/A	N/A	N/A	6	N/A	N/A	294.11	
Faecal coliforms cfu/100ml	N/A	N/A	N/A	5	N/A	N/A	2352840	

Notes:

1 – This represents the Emission Limit Values after the Interpretation provided for under Condition 2 of the licence is applied

Cause of Exceedance(s):

Discharge is considered untreated due to inadequate primary treatment provided.

Significance of Results:

The WWTP is non-compliant with the ELV's set in the Wastewater Discharge Licence. The impact on receiving waters is assessed further in Section 2.

2.1.4 AMBIENT MONITORING SUMMARY FOR THE UNTREATED DISCHARGE TPEFF0600D0345SW001

A summary of monitoring from ambient monitoring points associated with the wastewater discharge is provided in the sections below. For discharges to rivers upstream (U/S) and downstream (D/S) location data is provided. For other ambient points in lakes, coastal or transitional waters, monitoring data from the most appropriate monitoring station is selected.

The table below provides details of ambient monitoring locations and details of any designations as sensitive areas.

Ambient Monitoring Point from WWDL (or as agreed with EPA)	Irish Grid Reference	River Station Code	Bathing Water	Drinking Water	FWPM	Shellfish	WFD Status
The ambient monitoring results are included in the Appendix 7.1 - Ambient monitoring summary							

Significance of Results:

The WWTP discharge was not compliant with the ELV's set in the wastewater discharge licence.

The ambient monitoring results meet the required EQS. The EQS relates to the Oxygenation and Nutrient Conditions set out in the Surface Water Regulations 2009.

The discharge from the wastewater treatment plant does not have an observable impact on the water quality.

The discharge from the wastewater treatment plant does not have an observable negative impact on the Water Framework Directive status.

3 COMPLAINTS AND INCIDENTS

3.1 COMPLAINTS SUMMARY

A summary of complaints of an environmental nature is included below.

Number of Complaints	Nature of Complaint	Number Open Complaints	Number Closed Complaints
There were no relevant environmental complaints in 2019.			

3.2 REPORTED INCIDENTS SUMMARY

Environmental incidents that arise in an agglomeration are reported on an on-going basis in accordance with our waste water discharge licences. Where an incident occurs and it is reportable under the licence, it is reported to the Environmental Protection Agency through their Environmental Data Exchange Network, or in some instances by telephone. Some incidents which arise in the agglomeration are recorded by Irish Water but may not be reportable under our licence for example where the incident does not have an impact on environmental performance.

A summary of reported incidents is included below.

3.2.1 SUMMARY OF INCIDENTS

Incident Type	Cause	No. of incident occurrences	Recurring (Y/N)	Closed (Y/N)
Breach of ELV	WWTP upgrade required to meet ELV	1	Yes	No

3.2.2 SUMMARY OF OVERALL INCIDENTS

Question	Answer
Number of Incidents in 2019	1
Number of Incidents reported to the EPA via EDEN in 2019	1
Explanation of any discrepancies between the two numbers above	N/A

4 INFRASTRUCTURAL ASSESSMENTS AND PROGRAMME OF IMPROVEMENTS

4.1 STORM WATER OVERFLOW IDENTIFICATION AND INSPECTION REPORT

A summary of the operation of the storm water overflows and their significance where known is included below:

4.1.1 SWO IDENTIFICATION

WWDL Name / Code for Storm Water Overflow	Irish Grid Ref.	Included in Schedule A4 of the WWDL	Significance of the overflow(High / Medium / Low)	Assessed against DoEHLG Criteria	No. of times activated in 2019 (No. of events)	Total volume discharged in 2019 (m3)	Monitoring Status
There are no Storm Water Overflows in this Agglomeration.							

SWO Summary	
How much sewage was discharged via SWOs in the agglomeration in the year (m ³)?	0
Is each SWO identified as not meeting DoEHLG Guidance included in the Programme of Improvements?	N/A
The SWO Assessment included the requirements of relevant of WWDL schedules?	N/A
Have the EPA been advised of any additional SWOs / changes to Schedule C3 and A4 under Condition 1.7?	N/A

4.2 REPORT ON PROGRESS MADE AND PROPOSALS BEING DEVELOPED TO MEET THE IMPROVEMENT PROGRAMME REQUIREMENTS.

4.2.1 SPECIFIED IMPROVEMENT PROGRAMME SUMMARY

A wastewater discharge licence may require a number of reports on specific subject areas to be prepared for the agglomeration in question. These reports are submitted to the EPA as part of the Annual Environmental Report. This section provides list of the various reports required for this agglomeration and a brief summary of their recommendations.

Specified Improvement Programmes (under Schedule A and C of WWDL)	Description	Licence Schedule	Licence Completion Date	Date Expired? (N/NA/Y)	Status of Works	Timeframe for Completing the Work	Comments
D0345-SIP:03	Provide a wastewater treatment plant providing secondary treatment to ensure compliance with ELVs as specified in the RL	C	31/12/2015	Yes	At Planning Stage	31/12/2023	Ramelton, Milford & Rathmullan will be served by 1 No. Secondary WWTP and have one discharge point.
D0345-SIP:01	Install UV or appropriate disinfection on the discharge	C	31/12/2015	Yes	At Planning Stage	31/12/2023	Ramelton, Milford & Rathmullan will be served by 1 No. Secondary WWTP and have one discharge point.

Specified Improvement Programmes (under Schedule A and C of WWDL)	Description	Licence Schedule	Licence Completion Date	Date Expired? (N/NA/Y)	Status of Works	Timeframe for Completing the Work	Comments
D0345-SIP:02	Primary Discharge Point SW001 to be discontinued	C	31/12/2015	Yes	At Planning Stage	31/12/2023	Ramelton, Milford & Rathmullan will be served by 1 No. Secondary WWTP and have one discharge point.
D0345-SIP:04	Secondary Discharge Point SW002 to be discontinued	C	31/12/2015	Yes	At Planning Stage	31/12/2023	Ramelton, Milford & Rathmullan will be served by 1 No. Secondary WWTP and have one discharge point.

A summary of the status of any improvements identified by under Condition 5.2 is included below.

4.2.2 IMPROVEMENT PROGRAMME SUMMARY

Improvement Identifier	Improvement Description / or any Operational Improvements	Improvement Source	Expected Completion Date	Comments
There are no Improvement Programmes for this Agglomeration.				

4.2.3 SEWER INTEGRITY RISK ASSESSMENT

N/A

5 LICENCE SPECIFIC REPORTS

A wastewater discharge licence may require a number of reports on specific subject areas to be prepared for the agglomeration in question. These reports are submitted to the EPA as part of the Annual Environmental Report. This section provides list of the various reports required for this agglomeration and a brief summary of their recommendations.

Licence Specific Report	Required by licence	Year included in AER	Included in this AER	Reference to relevant section of AER
Priority Substances Assessment	Yes	2015	No	

5.1 PRIORITY SUBSTANCES ASSESSMENT

The Priority Substances Assessment Report has been included in the 2015 AER.

6 CERTIFICATION AND SIGN OFF

6.1 SUMMARY OF AER CONTENTS

Parameter	Answer
Does the AER include an Executive Summary?	Yes
Does the AER include an assessment of the performance of the Waste Water Works (i.e. have the results of assessments been interpreted against WWDL requirements and or Environmental Quality Standards)?	Yes
Is there a need to advise the EPA for consideration of a Technical Amendment / Review of the licence?	No
List reason e.g. additional SWO identified	N/A
Is there a need to request/advise the EPA of any modification to the existing WWDL with respect to condition 4 changes to monitoring location, frequency etc.	No
List reason e.g. changes to monitoring requirements	N/A
Have these processes commenced?	N/A
Are all outstanding reports and assessments from previous AERs included as an appendix to this AER	Yes

I certify that the information given in this Annual Environmental Report is truthful, accurate and complete:

Signed:

Date: 14/04/2020

This AER has been produced by Irish Water's Environmental Information System (EIMS) and has been electronically signed off in that system for and on behalf of,

Katherine Walshe

Acting Head of Environmental Regulation.

7 APPENDIX

Appendix

Appendix 7.1 - Ambient monitoring summary

Rathmullan WwTP Septic Tank 1 and Septic Tank 2

Ambient Points

Ambient Monitoring Point from WWDL (or as agreed with EPA)	Irish Grid Reference	EPA Feature Coding Tool code	Receiving Waters Designation (Y/N)				WFD Status
			Bathing Water	Drinking Water	FWPM	Shellfish	
Downstream	231780, 429809	TPEFF0600D0345SW001	Yes	No	No	Yes	High
Downstream	231780, 429809	TPEFF0600D0345SW002	Yes	No	No	Yes	High

Entity	Category	MONTH	Location	Lab Ref	Date	Ammonia (as N)	BOD	Chlorophyll	COD	Dissolved Inorganic Nitrogen (as N)	Dissolved Oxygen % Saturation	E coli	Intestinal Enterococci	Faecal Coliforms (E. coli)	Orthophosphate	pH	Suspended Solids	Temperature	Total Nitrogen	Salinity	Total Oxidised Nitrogen
						(mg/l)	(mg/l)	mg/m3	(mg/l)	(mg/l)	(mg/l)	mpn/100mls	cfu/100	cfu/100mls	(mg/l)	pH Units	(mg/l)	°C	(mg/l)	g/kg	(mg/l)
Lough Swilly	Coastal Water Body	April	Rathmullan	192502327	11-Apr-19	<0.02	2	NT	NT	<0.02	93.6	0	0	7	<0.02	7.91	54.1	NT	NT	NT	NT
Lough Swilly	Coastal Water Body	June	Rathmullan	192503673	06-Jun-19	<0.02	2.76	NT	NT	<0.2	103	0	0	4	<0.02	8.19	29.3	11.9	NT	NT	NT