

# Annual Environmental Report

2022



Rathmullen

D0345-01

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## 7.1 AMBIENT MONITORING SUMMARY

# 1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2022 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.

Rathmullen is on the Irish Water Capital Investment Programme

## 1.2 TREATMENT SUMMARY

- Currently there is no treatment provided at Rathmullen . Please refer to section 4 for details of the Programme of Improvements.
- Currently there is no treatment provided at Rathmullen . Please refer to section 4 for details of the Programme of Improvements.

## 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	<b>Suspended Solids mg/l and BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l</b>
TPEFF0600D0345SW001	RATHMULLAN SEPTIC TANK NR. 1	Untreated	Non-Compliant	<b>Suspended Solids mg/l and BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l</b>

## 1.4 LICENCE SPECIFIC REPORTING

Assessment / Report
<b>There are no Licence Specific Reports included in this AER.</b>

## 2 TREATMENT PLANT PERFORMANCE AND IMPACT SUMMARY

### 2.1.1 EFFLUENT MONITORING SUMMARY - SW002

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 exceedances with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
pH pH units	N/A	N/A	N/A	6	N/A	N/A	N/A	
Enterococci (Intestinal) cfu/100ml	N/A	N/A	N/A	2	N/A	N/A	N/A	
ortho-Phosphate (as P) - unspecified mg/l	N/A	N/A	N/A	6	N/A	N/A	N/A	
E. Coli MPN/100ml	N/A	N/A	N/A	2	N/A	N/A	N/A	
COD-Cr mg/l	N/A	N/A	N/A	6	N/A	N/A	N/A	
BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l	N/A	N/A	20%	6	2	N/A	N/A	Fail
Suspended Solids mg/l	N/A	N/A	50%	6	4	N/A	N/A	Fail
Faecal coliforms cfu/100ml	N/A	N/A	N/A	2	N/A	N/A	N/A	

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 exceedances with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
Ammonia-Total (as N) mg/l	N/A	N/A	N/A	6	N/A	N/A	N/A	
Conductivity @20°C µS/cm	N/A	N/A	N/A	6	N/A	N/A	N/A	

Notes:

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

2 – For pH the WWDA specifies a range of pH 6 - 9

### Cause of Exceedance(s):

The agglomeration is not served by a wastewater treatment plant.

### Significance of Results:

The WWTP is not compliant with the ELV's set in the Wastewater Discharge Licence.

## 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 Ecological Status
Downstream	231780, 429809	CW06007072LS2001	Yes	No	No	Yes	High

The results for ambient results and / or additional monitoring data sets are included in the **Appendix 7.1 - Ambient monitoring summary**

### Significance of Results:

The coastal/transitional ambient monitoring results do not meet the required EQS. The EQS relates to the Oxygenation and Nutrient Conditions set out in the Surface Water Regulations 2009.

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

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

### 2.1.3 EFFLUENT MONITORING SUMMARY - SW001

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 exceedances with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
pH pH units	N/A	N/A	N/A	6	N/A	N/A	N/A	
Enterococci (Intestinal) cfu/100ml	N/A	N/A	N/A	2	N/A	N/A	N/A	
ortho-Phosphate (as P) - unspecified mg/l	N/A	N/A	N/A	6	N/A	N/A	N/A	

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 exceedances with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
E. Coli MPN/100ml	N/A	N/A	N/A	2	N/A	N/A	N/A	
COD-Cr mg/l	N/A	N/A	N/A	6	N/A	N/A	N/A	
BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l	N/A	N/A	20%	6	4	N/A	N/A	Fail
Suspended Solids mg/l	N/A	N/A	50%	6	6	N/A	N/A	Fail
Faecal coliforms cfu/100ml	N/A	N/A	N/A	2	N/A	N/A	N/A	
Ammonia-Total (as N) mg/l	N/A	N/A	N/A	6	N/A	N/A	N/A	
Conductivity @20°C µS/cm	N/A	N/A	N/A	6	N/A	N/A	N/A	

Notes:

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

2 – For pH the WWDA specifies a range of pH 6 - 9

### Cause of Exceedance(s):

The agglomeration is not served by a wastewater treatment plant.

### Significance of Results:

The WWTP is not compliant with the ELV's set in the Wastewater Discharge Licence.

### 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 Ecological Status
Downstream	231780, 429809	CW06007072LS2001	Yes	No	No	Yes	High

The results for ambient results and / or additional monitoring data sets are included in the **Appendix 7.1 - Ambient monitoring summary**

### Significance of Results:

The coastal/transitional ambient monitoring results do not meet the required EQS. The EQS relates to the Oxygenation and Nutrient Conditions set out in the Surface Water Regulations 2009.

The WWTP discharge was not compliant with the ELV's set in the wastewater discharge licence for the following: BOD & SS.

The ambient monitoring results do not meet the required EQS at the upstream and the downstream monitoring locations. 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.

## 3 COMPLAINTS AND INCIDENTS

### 3.1 COMPLAINTS SUMMARY

A summary of complaints of an environmental nature related to the discharge(s) to water from the WWTP and network is included below.

Number of Complaints	Nature of Complaint	Number Open Complaints	Number Closed Complaints
1	Discharge to waters	0	1

### 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 Uisce Éireann 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 2022	1
Number of Incidents reported to the EPA via EDEN in 2022	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 (chamber) where applicable	Irish Grid Ref. (outfall)	Included in Schedule of the WWDL	Significance of the overflow(High / Medium / Low)	Assessed against DoEHLG Criteria	No. of times activated in 2022 (No. of events)	Total volume discharged in 2022 (m3)	Monitoring Status
<b>There are no Storm Water Overflows in this Agglomeration.</b>							

Any TBC SWO(s) were identified as part of the on-going National SWO programme and will be updated in subsequent AER(s) once the information is confirmed.

SWO Summary	
How much sewage was discharged via monitored SWOs in the agglomeration in the year (m3)?	Unknown
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 a 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
<b>D0345-SIP:01</b>	Install UV or appropriate disinfection on the discharge	C	31/12/2015	Yes	At Planning Stage	2025	
<b>D0345-SIP:02</b>	Primary Discharge Point SW001 to be discontinued	C	31/12/2015	Yes	At Planning Stage	2025	
<b>D0345-SIP:03</b>	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	2025	
<b>D0345-SIP:04</b>	Secondary Discharge Point SW002 to be discontinued	C	31/12/2015	Yes	At Planning Stage		At tender stage 2024+

A summary of the status of any other improvements identified by under Condition 5 assessments- is included below.

### 4.2.2 IMPROVEMENT PROGRAMME SUMMARY

Improvement Identifier	Improvement Description / or any Operational Improvements	Improvement Source	Expected Completion Date	Comments
<b>No additional improvements planned at this time.</b>				

### 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 a 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
<b>Priority Substances Assessment</b>	Yes	2015	No

## 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?	N/A
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	N/A
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	N/A

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

Signed: Date: 29/05/2023

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

Eleanor Roche

Acting Head of Environmental Regulation.

# 7 APPENDIX

Appendix
Appendix 7.1 - Ambient monitoring summary

Month	Category	Entity	Station	Lab Ref	Date	Ammonia (as N) (mg/l)	BOD (mg/l)	Chlorophyll mg/m3	Dissolved Inorganic Nitrogen (as N) (mg/l)	Dissolved Oxygen % Saturation (mg/l)	E coli mpn/100mls	Intestinal Enterococci cfu/100	Faecal Coliforms cfu/100mls	Orthophosphate (mg/l)	Temperature °C	Total Oxidised Nitrogen N (mg/l)	Total Nitrogen N (mg/l)	Salinity PSU	pH pH units	Suspended Solids (mg/l)	Chlorophyll µg/L	COD Chemical Oxygen Demand (mg/l)
March	Coastal Water Body	Lough Swilly	Rathmullan - Downstream	222501623	08-Mar-22	NT	<2	NT	NT	101.1	0	1	0	<0.02	6.3	NT	NT	32.29	7.35	119	NT	NT
June	Coastal Water Body	Lough Swilly	Rathmullan - Downstream	222502757	14-Jun-22	NT	4	NT	<0.52	100.7	1	38	1	0.06	12.7	NT	NT	35.6	7.9	138	NT	NT

sample results added in December from external lab.