Annual Environmental Report

2024

Rochfortbridge

D0101-01

CONTENTS

1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2024 AER

This Annual Environmental Report has been prepared for D0101-01, Rochfortbridge, in Westmeath 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.

There were no capital works, significant changes or operational changes undertaken in 2024.

1.2 TREATMENT SUMMARY

The agglomeration is served by a wastewater treatment plant(s)

- Rochfortbridge WWTP with a Plant Capacity PE of 4500, the treatment type is 3P - Tertiary P removal.

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
TPEFF3200D0101SW001	Rochfortbridge WWTP	Treated	Non-Compliant	Total Phosphorus (as P) mg/l

1.4 LICENCE SPECIFIC REPORTING

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

2 TREATMENT PLANT PERFORMANCE AND IMPACT SUMMARY

2.1 ROCHFORTBRIDGE WWTP - TREATED DISCHARGE

2.1.1 INFLUENT MONITORING SUMMARY - ROCHFORTBRIDGE WWTP

A summary of influent monitoring for the treatment plant is presented below. This monitoring is primarily undertaken in order to determine the overall efficiency of the plant in removing pollutants from the raw wastewater.

Parameters	Number of Samples	Annual Max	Annual Mean
Ammonia-Total (as N) mg/l	13	120	51
pH pH units	13	8.70	7.63
Suspended Solids mg/l	13	2320	502
Total Phosphorus (as P) mg/l	13	19	10.6
COD-Cr mg/l	13	2260	975
Total Nitrogen mg/l	13	130	75
BOD, 5 days with Inhibition (Carbonaceous) mg/l	13	648	280
ortho-Phosphate (as P) - unspecified mg/l	13	17	7.77
Hydraulic Capacity	N/A	1056	438

If other inputs in the form of sludge / leachate are added to the WWTP then these are included in Section 2.1.5 if applicable.

Significance of Results:

The annual mean hydraulic loading is less than the peak Treatment Plant Capacity. The annual maximum hydraulic loading is less than the peak Treatment Plant Capacity. Further details on the plant capacity and efficiency can be found under the sectional 'Operational Performance Summary'.

2.1.2 EFFLUENT MONITORING SUMMARY - TPEFF3200D0101SW000

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)
COD-Cr mg/l	125	250	N/A	13	N/A	N/A	24 .33	Pass
Suspended Solids mg/l	35	87.5	N/A	13	1	N/A	11.5	Pass
pH pH units	6	9	N/A	13	N/A	N/A	7.24	Pass
BOD, 5 days with Inhibition (Carbonaceous) mg/l	4	8	N/A	13	N/A	N/A	1.69	Pass
Ammonia-Total (as N) mg/l	0.36	0.72	N/A	13	N/A	N/A	0.12	Pass
Total Phosphorus (as P) mg/l	0.27	0.32	N/A	13	1	1	0.30	Fail
Conductivity @20°C µS/cm	N/A	N/A	N/A	13	N/A	N/A	780	

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)
ortho-Phosphate (as P) - unspecified mg/l	N/A	N/A	N/A	13	N/A	N/A	0.13	
Nitrite (as N) mg/l	N/A	N/A	N/A	13	N/A	N/A	0.047	
Nitrate (as N) mg/l	N/A	N/A	N/A	13	N/A	N/A	27	
Total Nitrogen mg/l	N/A	N/A	N/A	13	N/A	N/A	28	
Total Oxidised Nitrogen (as N) mg/l	N/A	N/A	N/A	12	N/A	N/A	27	
Alkalinity-total (as CaCO3) mg/l	N/A	N/A	N/A	12	N/A	N/A	92.87	

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):

Inadequate operational procedures/training.

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.

2.1.3 AMBIENT MONITORING SUMMARY FOR THE TREATMENT PLANT DISCHARGE TPEFF3200D0101SW000

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
Upstream	246905 240424	RS07R040980	No	No	No	No	Poor
Downstream	247094, 240454	RS07R040990	No	No	No	No	Poor

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 WWTP discharge was not compliant with the ELV's set in the wastewater discharge licence for the following: Total Phosphorus (as P) mg/l.

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.

Based on ambient monitoring results a deterioration in Ammonia concentrations downstream of the effluent discharge is noted.

A deterioration in water quality has been identified, however it is not known if it or is not caused by the WWTP.

Other causes of deterioration in water quality in the area are unknown.

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

2.1.4 OPERATIONAL PERFORMANCE SUMMARY - ROCHFORTBRIDGE WWTP

2.1.4.1 Treatment Efficiency Report - Rochfortbridge WWTP

Treatment efficiency is based on the removal of key pollutants from the influent wastewater by the treatment plant. In essence the calculation is based on the balance of load coming into the plant versus the load leaving the plant. The efficiency is presented as a percentage removal rate.

A summary presentation of the efficiency of the treatment process including information for all the parameters specified in the licence is included below:

Parameter	Influent mass loading (kg/year)	Effluent mass emission (kg/year)	Efficiency (% reduction of influent load)
cBOD	44685	270	99
COD	155914	3890	98
SS	80283	1839	98
TN	11991	4487	63
TP	1691	47	97

Note: The above data is based on sample results for the number of dates reported.

2.1.4.2 Treatment Capacity Report Summary - Rochfortbridge WWTP

Treatment capacity is an assessment of the hydraulic (flow) and organic (the amount of pollutants) load a treatment plant is designed to treat versus the current loading of that plant.

Rochfortbridge WWTP	
Peak Hydraulic Capacity (m^3/day) - As Constructed	3039
DWF to the Treatment Plant (m^3/day)	1013
Current Hydraulic Loading - annual max (m^3/day)	1056
Average Hydraulic loading to the Treatment Plant (m^3/day)	438
Organic Capacity (PE) - As Constructed	4500
Organic Capacity (PE) - Collected Load (peak week)[Note1]	2107
Organic Capacity (PE) - Remaining	2393
Will the capacity be exceeded in the next three years? (Yes/No)	No

Nominal design capacities can be based on conservative design principles. In some cases assessment of existing plants has shown organic capacities significantly higher than the nominal design capacity. Accordingly plants that appear to be overloaded when comparing a collected peak load with the nominal design capacity can be fully compliant due to the safety factors in the original design.

2.1.5 SLUDGE / OTHER INPUTS - ROCHFORTBRIDGE WWTP

'Other inputs' to the waste water treatment plant are summarised in table below

Input type	Quantity	Unit	P.E.	% of load to WWTP	Included in Influent Monitoring (Y/N)?	Is there a leachate/sludge acceptance procedure for the WWTP?	Is there a dedicated leachate/sludge acceptance facility for the WWTP? (Y/N)
There is no Sludge and Other Input data for the Treatment Plant included in the AER.							

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
There were no relevant environmental complaints in 2024.			

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	Recurring (Y/N)	Closed (Y/N)
Abatement equipment off-line	Dosing pump failure or maintenance at WWTP	No	No
Breach of ELV	Inadequate Operational Procedures/Training	No	No

3.2.2 SUMMARY OF OVERALL INCIDENTS

Question	Answer
Number of Incidents in 2024	2
Number of Incidents reported to the EPA via EDEN in 2024	2
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 2024 (No. of events)	Total volume discharged in 2024 (m^3)	Monitoring Status
SW006	247001, 240438	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
SW4	246542, 240984	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored

The contents presented in this table include the most up to date information available at the time of writing. 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 wastewater discharge by metered SWOs during the year (m^3)?	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?	Yes
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
D0101-SIP:01	Discharge to cease: SW1 to Rochfortbridge stream	A	09/02/2010	Yes	Works Completed		
D0101-SIP:02	Discharge to cease: SW2 to Rochfortbridge stream	A	09/02/2010	Yes	Works Completed		
D0101-SIP:03	New WWTP plant (phase 1) and ancillary works	C	09/02/2010	Yes	Works Completed		
D0101-SIP:04	Installation and connection of Mullingar Road pumping station	C	09/02/2010	Yes	Works Completed		
D0101-SIP:05	Installation of new inlet pumping station	C	09/02/2010	Yes	Works Completed		
D0101-SIP:06	Installation of storm water storage tank	C	09/02/2010	Yes	Works Completed		

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
D0101-SIP:07	Phase 2 upgrade of new WWTP	C	31/12/2020	No	Not Started		
D0101-SIP:08	Refurbishment of old WWTP	C	09/02/2011	Yes	Works Completed		
D0101-SIP:09	Upgrading of SW2a SWO to ensure compliance with DoEHLG criteria.	C	02/02/2010	Yes	Works Completed		

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
No additional improvements planned at this time.				

4.2.3 SEWER INTEGRITY RISK ASSESSMENT

The utilisation of multiple capital maintenance programmes and the outputs of the workshops with the Local Authority Operations Staff held under the programme can be used to satisfy the requirements of Condition 5 regarding network integrity. Improvement works identified by way of these programmes and workshops will be included in the Improvements Summary Tables 4.2.1 and 4.2.2.

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	Included in this AER
D0101-01-Priority Substances Assessment	Yes	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?	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	Yes
List reason e.g. changes to monitoring requirements	Ambient Monitoring Location Changes
Have these processes commenced?	No
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:

Date: 27/04/2025

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

Head of Environmental Regulation.

7 APPENDIX

Appendix
Appendix 7.1 - Ambient monitoring summary

Rochfortbridge 2024 Ambient Monitoring Summary

			Receiving Waters Designation (Yes/No)			
Ambient Monitoring Point from WWDL (or as agreed with EPA)	**Irish National Grid Reference (Easting, Northing)**	**EPA Feature Coding Tool code**	**Bathing Water**	**Drinking Water**	**FWPM**	**Shellfish**
Upstream Monitoring Point	246905 240424	RS07R040980	No	No	No	No
Downstream Monitoring Point	247094, 240454	RS07R040990	No	No	No	No

Ambient Monitoring Point from WWDL (or as agreed with EPA)	**Current WFD Status**	**cBOD (Mean mgl/l)**	**o-Phosphate (as P) (Mean mg/l)**	**Ammonia (as N) (Mean mg/l)**
Upstream Monitoring Point	Poor	0.966	0.007	0.012
Downstream Monitoring Point	Poor	0.895	0.007	0.023
Difference		*-0.071*	*0.000*	*0.011*
EQS		1.500	0.035	0.065
% of EQS		-4.714%	0.000%	17.137%

Rochfortbridge 2024 Ambient Monitoring Data

Upstream Results												
Date		Ammonia (mg/l)	Ortho P (mg/l)	BOD (mg/l)	D.O (% Sat)	D.O (mg/l)	pH (pH Units)	Temp (°C)	Total N (mg/l)	Total P (mg/l)	Conductivity @20°C (µS/cm)	COD (mg/l)
31/01/2024	U/S	0.015	<0.010	<1	87.2	10.09	7.4	8.6	5.1	0.07	673	23
28/02/2024	U/S	<0.015	<0.010	<1	88.6	9.81	7.7	10.2	2.9	<0.050	688	23
20/03/2024	U/S	<0.015	<0.010	<1	88.2	9.99	7.7	9.7	3.1	0.05	615	26
17/04/2024	U/S	<0.015	<0.010	<1	63.2	6.7	7.8	8.8	3	0.05	641	26
08/05/2024	U/S	<0.015	<0.01	<1	79.3	7.8	7.8	12.4	2.6	<0.05	701	21
29/05/2024	U/S	0.018	<0.01	3	81.6	8.3	7.9	14.4	2	0.05	684	26
24/07/2024	U/S	<0.015	<0.010	<1	81.3	8.2	8.0	15.1	1.3	0.17	684	51
21/08/2024	U/S	<0.015	<0.01	1	67.4	6.8	7.8	14.7	2	<0.05	668	15
18/09/2024	U/S	<0.015	<0.01	<1	77.2	8	8	14.3	1.4	<0.05	687	20
13/11/2024	U/S	<0.015	<0.010	<1	70.6	8.5	7.9	7.0	1.3	0.06	710	15
11/12/2024		<0.015	<0.010	<1	77.1	7.9	7.7	7.5	2.8	<0.050	700	27
Mean		**0.012**	**0.007**	**0.966**	**78.46**	**8.42**	**7.80**	**11.52**	**2.47**	**0.06**	**675.10**	**24.60**
95%ile		**0.017**	**0.007**	**2.100**	**88.42**	**10.05**	**8.00**	**14.92**	**4.20**	**0.13**	**705.95**	**39.75**

Note: Where the concentration in the result is less than the limit of detection (LOD), a value of LOD/sqrt(2) was used in calculating the mean and 95%ile concentrations.

Downstream Results												
Date		Ammonia (mg/l)	Ortho P (mg/l)	BOD (mg/l)	D.O (% Sat)	D.O (mg/l)	pH (pH Units)	Temp °C	Total N (mg/l)	Total P (mg/l)	Conductivity @20°C (µS/cm)	COD (mg/l)
31/01/2024	D/S	<0.015	<0.01	<1	100.4	108.7	7.3	11.1	6.2	0.08	684	24
28/02/2024	D/S	0.089	<0.010	<1	90.7	10.05	7.7	10.3	3.4	<0.050	695	23
20/03/2024	D/S	<0.015	<0.010	<1	89	10.1	7.7	9.6	3.4	<0.050	637	21
17/04/2024	D/S	<0.015	<0.010	<1	72.1	7.4	7.8	9	2.6	<0.050	639	31
08/05/2024	D/S	<0.015	<0.01	<1	80.5	8	7.2	12.8	2.4	<0.05	704	23
29/05/2024	D/S	0.016	<0.01	1	76.9	7.9	7.7	13.9	2	0.06	689	23
21/08/2024	D/S	0.05	<0.01	1	89.6	8.8	6.2	15.6	31	0.13	833	22
18/09/2024	D/S	<0.015	<0.01	2	73.4	7.5	8	14.5	3.2	0.46	694	27
13/11/2024	D/S	<0.015	<0.010	<1	78.5	9.3	7.7	6.8	1.2	0.08	712	15
11/12/2024	D/S	<0.015	<0.010	<1	73.3	7.7	7.8	7.5	2.8	<0.050	700	27
Mean		**0.023**	**0.007**	**0.895**	**82.44**	**18.55**	**7.51**	**11.11**	**5.82**	**0.10**	**698.70**	**23.60**
95%ile		**0.071**	**0.007**	**1.550**	**96.04**	**64.33**	**7.91**	**15.11**	**19.84**	**0.31**	**778.55**	**29.20**

Note: Where the concentration in the result is less than the limit of detection (LOD), a value of LOD/sqrt(2) was used in calculating the mean and 95%ile concentrations.