Annual Environmental Report

2024

New Ross

D0036-01

CONTENTS

1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2024 AER

This Annual Environmental Report has been prepared for D0036-01, New Ross, in Wexford 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 major capital or operational changes undertaken.

1.2 TREATMENT SUMMARY

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

- New Ross WWTP with a Plant Capacity PE of 16000, the treatment type is 3N - Tertiary N 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
TPEFF3300D0036SW001	New Ross WWTP	Treated	Non-Compliant	Ammonia-Total (as N) 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 NEW ROSS WWTP - TREATED DISCHARGE

2.1.1 INFLUENT MONITORING SUMMARY - NEW ROSS 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
Suspended Solids mg/l	12	688	145
Total Phosphorus (as P) mg/l	12	5.80	3.16
Total Nitrogen mg/l	11	42	23
Ammonia-Total (as N) mg/l	1	14	14
COD-Cr mg/l	12	686	240
pH pH units	1	7.37	7.37
BOD, 5 days with Inhibition (Carbonaceo mg/l	12	237	75
Hydraulic Capacity	N/A	10217	4979

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 - TPEFF3300D0036SW001

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	12	N/A	N/A	21	Pass
Suspended Solids mg/l	35	87.5	N/A	12	N/A	N/A	8.18	Pass
Temperature °C	25	25	N/A	11	N/A	N/A	10	Pass
BOD, 5 days with Inhibition (Carbonaceo mg/l	25	50	N/A	12	N/A	N/A	2.34	Pass
Total Oxidised Nitrogen (as N) mg/l	10	12	N/A	12	N/A	N/A	4.22	Pass
pH pH units	9	9	N/A	12	N/A	N/A	7.22	Pass
Ammonia-Total (as N) mg/l	5	6	N/A	12	1	1	1.30	Fail

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)
Total Phosphorus (as P) mg/l	2	2.4	N/A	12	N/A	N/A	0.293	Pass
ortho-Phosphate (as P) - unspecified mg/l	1	1.2	N/A	11	N/A	N/A	0.163	Pass
Total Nitrogen mg/l	N/A	N/A	N/A	11	N/A	N/A	7.34	
Nitrite (as N) mg/l	N/A	N/A	N/A	11	N/A	N/A	0.316	
Nitrate (as N) mg/l	N/A	N/A	N/A	11	N/A	N/A	4.15	
Conductivity @20°C µS/cm	N/A	N/A	N/A	11	N/A	N/A	487	
Visual Inspection Descriptive	N/A	N/A	N/A	11	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):

Refer to the Incident section of this report.

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 TPEFF3300D0036SW001

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	271688, 127653	RS14B013800	No	No	No	No	Moderate
Downstream	270013, 124467	TW33002098SR3002	No	No	No	No	Moderate

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 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: Ammonia-Total (as N) mg/l.

Based on ambient monitoring results a deterioration in Ammonia, BOD, Dissolved Oxygen, Dissolved Inorganic Nitrogen, ortho-Phosphate, Temperature, pH, 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.

The discharge from the wastewater treatment plant does have an observable impact on the coastal/transitional water quality.

2.1.4 OPERATIONAL PERFORMANCE SUMMARY - NEW ROSS WWTP

2.1.4.1 Treatment Efficiency Report - New Ross 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)
SS	281112	14669	95
TN	45457	13398	71
TP	6128	525	91
COD	465504	36912	92
cBOD	144564	4205	97

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

2.1.4.2 Treatment Capacity Report Summary - New Ross 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.

New Ross WWTP	
Peak Hydraulic Capacity (m^3/day) - As Constructed	10800
DWF to the Treatment Plant (m^3/day)	3600
Current Hydraulic Loading - annual max (m^3/day)	10217.15
Average Hydraulic loading to the Treatment Plant (m^3/day)	4978.86
Organic Capacity (PE) - As Constructed	16000
Organic Capacity (PE) - Collected Load (peak week)[Note1]	11014
Organic Capacity (PE) - Remaining	4986
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 - NEW ROSS 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)
Uncontrolled release	Network Infrastructure	No	Yes
Uncontrolled release	Blocked Sewer	No	Yes
Breach of ELV	WWTP biological sludge issue	No	Yes

3.2.2 SUMMARY OF OVERALL INCIDENTS

Question	Answer
Number of Incidents in 2024	3
Number of Incidents reported to the EPA via EDEN in 2024	3
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 (m3)	Monitoring Status
SW2	270724, 126016	Yes	Low Significance	Meeting Criteria	Unknown	12029.28	Monitored
SW5	271529, 127191	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
SW6	271656, 127363	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
SW6	271656, 127363	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
SW7	271795, 127594	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
TBC	271717, 127778	No	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored

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 (m3)	Monitoring Status
TBC	273491, 128072	No	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
TBC	271762, 127153	No	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 (m3)?	12029.28
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?	Yes

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
There are no Specified Improvement Programmes for this Agglomeration.							

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
D0036-01-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?	Yes
List reason e.g. additional SWO identified	To change the pH range & to inlcude additional SWO identified
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?	Yes
Are all outstanding reports and assessments from previous AERs included as an appendix to this AER	No

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

Signed: Date: 30/06/2025

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

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	
RS14B013800	271688, 127653	TPEFF3300D0036SW001	No	No	No	No	Moderate
TW33002098SR3002	270013, 124467	TPEFF3300D0036SW001	No	No	No	No	Moderate

Ambient Impact Assessment Table

Parameter Name	Upstream Monitoring Point Location	Upstream Monitoring Point Annual Mean	Downstream Monitoring Point Location	Downstream Monitoring Point Annual Mean	EQS (Mean)	%EQS
BOD mg/l	RS14B013800	0.895	TW33002098SR3002	0.924	River: 1.5 TW: 4.0	
Ortho-Phosphate (as P) mg/l	RS14B013800	0.011	TW33002098SR3002	0.015	River: 0.035 TW: 0.060	
Ammonia (as N) mg/l	RS14B013800	0.078	TW33002098SR3002	0.056	River: 0.065	
pH pH units	RS14B013800	7.88	TW33002098SR3002	8.03		
Dissolved Oxygen mg/l	RS14B013800	8.32	TW33002098SR3002	8.58		
Dissolved Inorganic Nitrogen mg/l	RS14B013800	3.365	TW33002098SR3002	3.395		
Temperature °C	RS14B013800	11.82	TW33002098SR3002	14.58		
Total Nitrogen (as N) mg/l	RS14B013800	4.8	TW33002098SR3002	4.6		
Total Phosphorus (as P) mg/l	RS14B013800	0.131	TW33002098SR3002	0.126		

Ambient Data Tables

Monitoring Entity	Station Reference	Monitoring Point	Sample Date	Ammonia	BOD	Dissolved Inorganic Nitrogen	Dissolved Oxygen	Ortho-phosphate (as P)	pH	TKN	Temperature	Total Nitrogen (as N)	Total Phosphorus	Visual
				mg/l	mg/l	mg/l	mg/l	mg/l	pH Units		°C	mg/l	mg/l	
Barrow River	RS14B013800	Upstream	14/02/2024	<0.015	<1	3.2	10.4	<0.01	7.5	3.2	8.4	5	0.07	Clear, light yellow, a few suspended solids
Barrow River	RS14B013800	Upstream	06/03/2024	<0.015	<1	3	10	<0.01	8		8.6	5	0.1	clear, yellowish
Barrow River	RS14B013800	Upstream	04/04/2024	0.058	1	3.46	5.9	<0.01	8.3		8	4	<0.05	Colourless, clear, no suspended solids
Barrow River	RS14B013800	Upstream	14/05/2024	<0.015	<1	3.9	11.2	<0.01	8.3		8.6	5	0.09	slightly turbid, slightly yellowish
Barrow River	RS14B013800	Upstream	05/06/2024	0.024	<1	3.52	8.1	<0.01	8.2		10.2	5	0.07	Clear, yellow, no suspended solids
Barrow River	RS14B013800	Upstream	03/07/2024	<0.015	2	3.4	6.2	<0.01	7.1		10	4	0.1	Clear, Colourless
Barrow River	RS14B013800	Upstream	13/08/2024	0.052	<1	2.65	8.2	<0.01	8.2		14.7	5	0.1	slightly turbid, slightly yellowish
Barrow River	RS14B013800	Upstream	11/09/2024	0.18	<1	3.88	8.4	<0.010	7.1		14.7	6	0.06	Slighty Yellow, Clear
Barrow River	RS14B013800	Upstream	12/11/2024	0.026	<1	2.89	7.4	0.04	8		16.5	5	0.45	Grey, slight turbidity, some SS
Barrow River	RS14B013800	Upstream	18/12/2024	0.017	1	3.75	7.4	0.01	8.1		18.5	4	0.23	Brown, very turbid, lot of SS
			Mean	0.039942641	0.894974747	3.365	8.32	0.010656854	7.88	3.2	11.82	4.8	0.130535534	

Monitoring Entity	Station Reference	Monitoring Point	Sample Date	Ammonia	BOD	Dissolved Inorganic Nitrogen	Dissolved Oxygen	Ortho-phosphate (as P)	pH	TKN	Temperature	Total Nitrogen (as N)	Total Phosphorus	Visual
				mg/l	mg/l	mg/l	mg/l	mg/l	pH Units		°C	mg/l	mg/l	
Barrow River	TW33002098SR3002	Downstream	14/02/2024	0.047	1	2.65	8	0.06	8.1		16.7	5	0.07	clear, colourless
Barrow River	TW33002098SR3002	Downstream	06/03/2024	0.031	<1	3.23	11	<0.01	7.6		15.8	7	0.14	Clear, light yellow, no suspended solids
Barrow River	TW33002098SR3002	Downstream	04/04/2024	<0.015	<1	3	10.5	<0.01	8.1		20.1	4	0.07	clear, yellowish
Barrow River	TW33002098SR3002	Downstream	14/05/2024	0.052	<1	3.45	6.3	<0.01	8.3		20.8	4	<0.05	Clear, colourless, no suspended solids
Barrow River	TW33002098SR3002	Downstream	05/06/2024	<0.015	<1	3.9	10.3	<0.01	8.3		16.1	5	0.1	slightly turbid, slightly yellowish

				Ammonia	BOD	Dissolved Inorganic Nitrogen	Dissolved Oxygen	Ortho-phosphate (as P)	pH	TKN	Temperature	Total Nitrogen (as N)	Total Phosphorus	Visual
Monitoring Entity	Station Reference	Monitoring Point	Sample Date	mg/l	mg/l	mg/l	mg/l	mg/l	pH Units		°C	mg/l	mg/l	
Barrow River	TW33002098SR3002	Downstream	03/07/2024	0.082	1	3.48	8.4	<0.01	8.2		16	5	0.07	Clear, colourless, few suspended solids
Barrow River	TW33002098SR3002	Downstream	13/08/2024	<0.015	2	3.5	9	<0.01	7.7		11.3	5	0.17	Slightly yellow, cloudy,particles present
Barrow River	TW33002098SR3002	Downstream	11/09/2024	0.25	<1	4.21	8.5	<0.010	7.9		11.5	3	0.06	Slightly Yellow, Particles
Barrow River	TW33002098SR3002	Downstream	12/11/2024	0.042	<1	2.81	7.1	<0.010	8		8.7	4	0.33	Grey, slight turbidity, some SS
Barrow River	TW33002098SR3002	Downstream	18/12/2024	0.02	1	3.72	6.7	0.03	8.1		8.8	4	0.21	Brown, very turbid, lot of SS
			Mean	0.055581981	0.924264069	3.395	8.58	0.014656854	8.03		14.58	4.6	0.125535534	

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.