

Annual Environmental Report

2021



Kilrush

D0075-01

CONTENTS

1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2021 AER

- 1.1 ANNUAL STATEMENT OF MEASURES
- 1.2 TREATMENT SUMMARY
- 1.3 ELV OVERVIEW
- 1.4 LICENSE SPECIFIC REPORT INCLUDED IN AER

2 TREATMENT PLANT PERFORMANCE AND IMPACT SUMMARY

- 2.1 KILRUSH WWTP - UNTREATED DISCHARGE
 - 2.1.1 EFFLUENT MONITORING SUMMARY - KILRUSH WWTP -
 - 2.1.2 AMBIENT MONITORING SUMMARY FOR UNTREATED DISCHARGE -

3 COMPLAINTS AND INCIDENTS

- 3.1 COMPLAINTS SUMMARY
- 3.2 REPORTED INCIDENTS SUMMARY
 - 3.2.1 SUMMARY OF INCIDENTS
 - 3.2.2 SUMMARY OF OVERALL INCIDENTS

4 INFRASTRUCTURAL ASSESSMENT AND PROGRAMME OF IMPROVEMENTS

- 4.1 STORM WATER OVERFLOW IDENTIFICATION AND INSPECTION REPORT
 - 4.1.1 SWO IDENTIFICATION AND INSPECTION SUMMARY REPORT
- 4.2 REPORT ON PROGRESS MADE AND PROPOSALS BEING DEVELOPED TO MEET THE IMPROVEMENT PROGRAMME REQUIREMENTS
 - 4.2.1 SPECIFIED IMPROVEMENT PROGRAMME SUMMARY
 - 4.2.2 IMPROVEMENT PROGRAMME SUMMARY
 - 4.2.3 SEWER INTEGRITY RISK ASSESSMENT

5 LICENCE SPECIFIC REPORTS

- 5.1 PRIORITY SUBSTANCES ASSESSMENT
- 5.2 SHELLFISH IMPACT ASSESSMENT

6 CERTIFICATION AND SIGN OFF

- 6.1 SUMMARY OF AER CONTENTS

7 APPENDIX

- 7.1 AMBIENT MONITORING SUMMARY

1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2021 AER

This Annual Environmental Report has been prepared for D0075-01, Kilrush, in Clare 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.

NA

1.2 TREATMENT SUMMARY

- Currently there is no treatment provided at Kilrush . 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
TPEFF0300D0075SW001	KILRUSH WWTP	Untreated	Non-Compliant	Ammonia-Total (as N) mg/l BOD, 5 days with Inhibition (Carbonaceo mg/l COD-Cr mg/l Suspended Solids 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

2.1.1 EFFLUENT MONITORING SUMMARY -

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	9	6	3	N/A	Fail
Suspended Solids mg/l	35	88	N/A	9	7	3	N/A	Fail
Total Oxidised Nitrogen (as N) mg/l	30	36	N/A	9	N/A	N/A	N/A	Pass
BOD, 5 days with Inhibition (Carbonaceo mg/l	25	50	N/A	9	7	6	N/A	Fail
Ammonia-Total (as N) mg/l	10	12	N/A	9	8	8	N/A	Fail
pH pH units	9.00	9.00	N/A	9	N/A	N/A	N/A	Pass
Total Nitrogen mg/l	N/A	N/A	N/A	1	N/A	N/A	N/A	
ortho-Phosphate (as	N/A	N/A	N/A	1	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)
P) - unspecified mg/l								
Total Phosphorus (as P) mg/l	N/A	N/A	N/A	1	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 ELVs in the Wastewater Discharge Licence cannot be measured as there is no influent data recorded in the AER

2.1.2 AMBIENT MONITORING SUMMARY FOR THE UNTREATED DISCHARGE TPEFF0300D0075SW001

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	97679, 154060	CW03004120SN7009	Yes	No	No	Yes	Good

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.

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 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 2021.			

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 2021	1
Number of Incidents reported to the EPA via EDEN in 2021	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 2021 (No. of events)	Total volume discharged in 2021 (m3)	Monitoring Status
TBC	99340, 154846	No	Medium	Meeting	Unknown	Unknown	Not Monitored
SW002	98714, 153937	Yes	Low	Not Meeting	Unknown	Unknown	Monitored
SW003	99263, 154858	Yes	Medium	Not Meeting	Unknown	Unknown	Monitored

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 SWOs in the agglomeration in the year (m3)?	Unknown
Is each SWO identified as not meeting DoEHLG Guidance included in the Programme of Improvements?	No
The SWO Assessment included the requirements of relevant of WWDL schedules?	No

SWO Summary

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
D0075-SIP:01	install a new wastewater treatment plant providing secondary treatment	C	31/12/2015	Yes	Work ongoing on-site	2023	

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	Year included in AER	Included in this AER
Priority Substances Assessment	Yes	2014	No
Shellfish Impact 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
Has a Technical amendment/licence review application been submitted to the Agency by IW?	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	N/A

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

Date: 07/04/2022

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

Ambient monitoring point/Coastal Monitoring Code	Irish Grid Reference	Designations				
		Bathing Water	Drinking Water	FWPM	Shellfish	WFD Status
Kilrush Bay CW03004120SN7009	097679; 154060	Yes	No	No	Yes	Good

Kilrush Ambient Results 2021

Monitoring Point	Date	Parameter	Biological Oxygen Demand	Dissolved Oxygen % Saturation	Ammonia N	Dissolved Oxygen	pH	Suspended Solids	Total Oxidised Nitrogen N	Faecal Coliforms	Enterococci	E Coli
			mg/l	% O2	mg/l	mg/l	pH units	mg/l	mg/l	no./100mls	cfu/100mls	no./100mls
CW03004120SN7009	1-Feb-2021	-	<1	95.3	0.022	11	8	40	0.394	206	33	158
CW03004120SN7009	12-Apr-2021	-	<1	98.5	<0.01	8.9	8.1	79	0.233	3	0	2
CW03004120SN7009	10-June-2021	-	<1	114.6	0.01	10.3	8.3	46	0.023	48	2	45
CW03004120SN7009	6-Aug-2021	-	<1	99.5	0.018	7.76	8.2	30	0.011	20	2	18
CW03004120SN7009	15-Oct-2021	-	<1	106.3	0.025	10.7	8.1	25	0.111	49	3	49
CW03004120SN7009	6-Dec-2021	-	<1	96.2	0.01	11.2	8	287	0.183			
		Mean	<1	102								
		95%ile	<1	113								
		Status	High	High								

Bathing Water Results 2021

Entity	Sample Date	Parameter	E Coli	Enterococci	Time Sampled	Visual Inspection	Salinity	Colour (Apparent)	Turbidity
			MPN/100mls	cfu/100mls	Descriptive	Descriptive	ppt	Pt-Co	NTU
Cappagh Pier Kilrush	24-May-2021	-	10	<10	9.3	Clear	31	14	1.4
Cappagh Pier Kilrush	1-June-2021	-	10	<10	9.3	Clear	31	18	1.3
Cappagh Pier Kilrush	14-June-2021	-	20	<10	09:30	Clear	31	8	1
Cappagh Pier Kilrush	21-June-2021	-	10	<10	9.3	Clear	32	22	0.5
Cappagh Pier Kilrush	5-July-2021	-	96	<10	09:30	Clear	31	168	5.1
Cappagh Pier Kilrush	19-July-2021	-	41	<10	9.15	Clear	31	52	0.5
Cappagh Pier Kilrush	3-Aug-2021	-	<10	<10	09:40	Clear	32	8	0.4
Cappagh Pier Kilrush	16-Aug-2021	-	20	10	9.1	Clear	31	102	1.6
Cappagh Pier Kilrush	30-Aug-2021	-	<10	<10	09:40	Clear	31	10	0.5
Cappagh Pier Kilrush	6-Sep-2021	-	52	10	09:55	clear	31	146	0.4