

Annual Environmental Report

2021



Foynes

D0502-01

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1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2021 AER

This Annual Environmental Report has been prepared for D0502-01, Foynes, in Limerick 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.

1.2 TREATMENT SUMMARY

- Currently there is no treatment provided at Foynes . 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
TPEFF1900D0502SW001	Foynes WWTP	Untreated	Non-Compliant	BOD, 5 days with Inhibition (Carbonaceous BOD) 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	6	5	2	208	Fail
Suspended Solids mg/l	35	87.5	N/A	6	5	3	83	Fail
BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l	25	50	N/A	6	5	5	67	Fail
pH units	9.00	9.00	N/A	6	N/A	N/A	8.21	Pass
Total Phosphorus (as P) mg/l	N/A	N/A	N/A	6	N/A	N/A	2.51	
ortho-Phosphate (as P) - unspecified mg/l	N/A	N/A	N/A	6	N/A	N/A	1.41	
Total Nitrogen mg/l	N/A	N/A	N/A	6	N/A	N/A	46	
Dissolved Inorganic	N/A	N/A	N/A	6	N/A	N/A	29	

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)
Nitrogen (as N) mg/l								
Ammonia-Total (as N) mg/l	N/A	N/A	N/A	1	N/A	N/A	14	
Total Oxidised Nitrogen (as N) mg/l	N/A	N/A	N/A	6	N/A	N/A	1.06	

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 agglomeration is not served by a Wastewater Treatment Plant.

2.1.2 AMBIENT MONITORING SUMMARY FOR THE UNTREATED DISCHARGE TPEFF1900D0502SW001

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	135844, 157038	TW03004128N2001	No	No	No	No	Poor
Downstream	124635, 152022	TW36004124FH1001	No	No	No	No	Unassigned

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 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.

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)
Abatement Equipment offline	Plant or equipment breakdown at WWTP	1	No	No
Breach of ELV	Inadequate Infrastructure	1	Yes	No

3.2.2 SUMMARY OF OVERALL INCIDENTS

Question	Answer
Number of Incidents in 2021	2
Number of Incidents reported to the EPA via EDEN in 2021	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 2021 (No. of events)	Total volume discharged in 2021 (m3)	Monitoring Status
SW2	125144, 151367	Yes	Low	Meeting	Unknown	Unknown	Not 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?	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
D0502-SIP:01	Discharges from SW000 to cease	A	31/12/2020	No	At Planning Stage	2025	
D0502-SIP:02	Discharges from SW002 to cease	A	31/12/2020	No	At Planning Stage	2025	
D0502-SIP:03	Installation of new rising mains and pumping station	C	01/01/2020	Yes	At Planning Stage	2025	
D0502-SIP:04	Installation of new waste water treatment plant and ancillary works	C	01/01/2020	Yes	At Planning Stage	2025	
D0502-SIP:05	Installation of storm water storage tank.	C	01/01/2020	Yes	At Planning Stage	2025	

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
There is no Licence Specific Report Required in this AER Annual Review.			

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	Yes
List reason e.g. changes to monitoring requirements	Ambient monitoring locations changes
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: 11/05/2022

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 Data for Coastal/transitional waters - Where the ambient data is not in EIMS, please complete the table below and append with ambient monitoring results (into 1 combined PDF). Please read notes tab for further info on coastal and transitional assessment.

Ambient Monitoring Report Summary Data

Ambient monitoring point/Coastal Monitoring Code	Irish Grid Reference	Bathing Water
Upstream Foynes WDL W18/ TW03004128SN2007	135844, 157038	No
Downstream Foynes WDL W18/ TW36004124FH1001	124635, 152022	No

Ambient Monitoring Results Summary

Monitoring point	Date	Ammonia NH3-N mg/l
Upstream Foynes WWTP WDLW 18	03-Mar-21	0.027
Upstream Foynes WWTP WDLW 18	07-Sep-21	0.026
Downstream Foynes WWTP WDL W19	03-Mar-21	0.17
Downstream Foynes WWTP WDL W19	07-Sep-21	0.022

Bathing Water Results Summary (if relevant)

Monitoring point	Date	Parameter 1
		Results

Ambient Monitoring Point from WWDL (or as agreed with)	Irish National Grid Reference	EPA Feature Coding Tool
Upstream Monitoring Point	135844, 157038	TW03004128SN2007
Downstream Monitoring Point	124635, 152022	TW36004124FH1001
Difference		
EQS		
% of EQS		

Designations		
Drinking Water	FWPM	Shellfish
No	No	No
No	No	No

BOD mg/l	Dissolved Inorganic Nitrogen DIN mg/l	Dissolved Oxygen % Saturation
<1	0.817	84
<1	0.136	81
<1	0.528	88
<1	0.136	80

Parameter 2	Parameter 3	Parameter 4
Results	Results	Results

Receiving Waters Designation (Yes/No)		
Bathing Water	Drinking Water	FWPM
No	No	No

WFD Status
Good
Good

Nitrate NO3-N mg/l	pH	Temperature Degrees C	Ortho Phosphate PO4-P mg/l
0.785	8.1	7.8	0.049
0.103	8	17.9	0.021
0.507	8	8	0.034
0.108	8	17	0.017

etc
Results

	Yes	Mean (mg/l)	
Shellfish	Current WFD Status	cBOD	o-Phosphate (as P)
	Good	1	0.026
No	Good	1	0.026
		0	0
		2.2	0.06
		0	0

Nitrite NO2-N mg/l	
	0.005
	0.007
	0.004
	0.006

Dissolved Inorganic Nitrogen	
	0.48
	0.332
	-0.148
	2.6
	-0.056923077