

# Annual Environmental Report

2021



Glin

D0504-01

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# 1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2021 AER

This Annual Environmental Report has been prepared for D0504-01, Glin, 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 Glin . 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
TPEFF1900D0504SW001	Glin WWTP	Untreated	No Emission Limit Values are specified for the discharge under the licence.	N/A

# 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	N/A	N/A	N/A	6	N/A	N/A	356	
pH units	N/A	N/A	N/A	6	N/A	N/A	7.72	
Total Phosphorus (as P) mg/l	N/A	N/A	N/A	6	N/A	N/A	5.78	
Dissolved Inorganic Nitrogen (as N) mg/l	N/A	N/A	N/A	6	N/A	N/A	21	
Total Nitrogen mg/l	N/A	N/A	N/A	6	N/A	N/A	38	
Total Oxidised Nitrogen (as N) mg/l	N/A	N/A	N/A	6	N/A	N/A	1.55	
BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l	N/A	N/A	N/A	6	N/A	N/A	143	

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)
Suspended Solids mg/l	N/A	N/A	N/A	6	N/A	N/A	327	
ortho-Phosphate (as P) - unspecified mg/l	N/A	N/A	N/A	6	N/A	N/A	2.77	

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:

There are no ELV's specified for the discharge under the licence.

## 2.1.2 AMBIENT MONITORING SUMMARY FOR THE UNTREATED DISCHARGE TPEFF1900D0504SW001

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
<b>There is no Ambient data included in the AER.</b>							

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 ambient monitoring results do not meet the required EQS at the downstream monitoring location. 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 Ortho P, concentrations downstream of the effluent discharge is noted.

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
<b>There were no relevant environmental complaints in 2021.</b>			

### 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)
Spillage	Blocked Sewer	1	No	Yes



### 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
<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 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>There are no Specified Improvement Programmes for this Agglomeration.</b>							

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>There is no Licence Specific Report Required in this AER Annual Review.</b>			

## 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: 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 Glin WDL W20/TW36004123SN3002	113047, 147867	No
Downstream Glin WDL W21/TW36004123SN3003	111322, 147465	No

Designations		
Drinking Water	FWPM	Shellfish
No	No	No
No	No	No

**Ambient Monitoring Results Summary**

Monitoring point	Date	Ammonia NH3-N mg/l
WDL W20 Shannon Estuary Upstream Glin WWTP	02-Mar-21	0.015
WDL W20 Shannon Estuary Upstream Glin WWTP	07-Sep-21	0.014
WDL W21 Shannon Estuary Downstream Glin WWTP	02-Mar-21	0.013
WDL W21 Shannon Estuary Downstream Glin WWTP	07-Sep-21	0.016

BOD mg/l	Dissolved Inorganic Nitrogen DIN mg/l	Dissolved Oxygen % Saturation
<1	0.501	91
<1	0.195	81
<1	0.507	95
<1	0.135	83

**Bathing Water Results Summary (if relevant)**

Monitoring point	Date	Parameter 1
		Results

Parameter 2	Parameter 3	Parameter 4
Results	Results	Results

Glin WWTP		
Ambient Monitoring Point from WWDL (or as agreed with	Irish National Grid Refe	EPA Feature Coding Tool
Upstream Monitoring Point	113047, 147867	TW36004123SN3002
Downstream Monitoring Point	111322, 147465	TW36004123SN303
Difference		
EQS		
% of EQS		

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



WFD Status
Good
Good

Nitrate NO3-N mg/l	pH	Temperature Degrees C
0.483	8	7.8
0.172	8.1	16.8
0.49	8.1	8.1
0.11	8	16.9

Ortho Phosphate PO4-P mg/l	Nitrite NO2-N mg/l
0.033	0.003
0.01	0.009
0.068	0.004
0.011	0.009

etc
Results

	Yes	Mean (mg/l)
Shellfish	Current WFD Status	cBOD
No	Good	1
No	Good	1
		0
		2.2
		0.00%

o-Phosphate (as P)	Ammonia (as N)
0.022	0.015
0.04	0.015
0.018	0
0.045	0.065
40.00%	0.00%