

# Annual Environmental Report

2021



Duncannon

D0245-01

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# **1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2021 AER**

This Annual Environmental Report has been prepared for D0245-01, Duncannon, 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 significant changes nor improvements under taken in 2021, works on new treatment plant and associated network improvements are currently under way with expected completion date of December 2023

## **1.2 TREATMENT SUMMARY**

- Currently there is no treatment provided at Duncannon . 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
TPEFF3300D0245SW001	Duncannon Untreated Discharge	Untreated	Non-Compliant	BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l COD-Cr mg/l Suspended Solids mg/l 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

### 2.1.1 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)
<b>COD-Cr mg/l</b>	125	250	N/A	12	7	4	206	Fail
<b>Suspended Solids mg/l</b>	35	87.5	N/A	12	10	6	157	Fail
<b>BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l</b>	25	50	N/A	12	10	7	92	Fail
<b>pH units</b>	9.00	9.00	N/A	12	N/A	N/A	7.82	Pass
<b>Total Phosphorus (as P) mg/l</b>	2.00	2.00	N/A	12	6	6	2.45	Fail
<b>Visual Inspection Descriptive</b>	N/A	N/A	N/A	12	N/A	N/A	N/A	
<b>Enterococci (Intestinal) cfu/100ml</b>	N/A	N/A	N/A	2	N/A	N/A	101	
<b>Faecal coliforms no./100mls</b>	N/A	N/A	N/A	2	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)
E. Coli MPN/100ml	N/A	N/A	N/A	2	N/A	N/A	121211	

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:

No WWTP in place. New treatment plant currently being constructed.

## 2.1.2 AMBIENT MONITORING SUMMARY FOR THE UNTREATED DISCHARGE TPEFF3300D0245SW002

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
TW33002097SR6005	271959, 108203		No	No	No	Yes	

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.

There is only one monitoring location so it is not possible to compare upstream or downstream results. The monitoring results do not 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 negative impact on the Water Framework Directive status.

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

## 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)
<b>Abatement Equipment offline</b>	Plant or equipment breakdown at WWTP	1	No	Yes
<b>Abatement Equipment offline</b>	Plant or equipment breakdown at WWTP	1	No	No
<b>Breach of ELV</b>	WWTP upgrade required to meet ELV	1	Yes	No



### 3.2.2 SUMMARY OF OVERALL INCIDENTS

Question	Answer
Number of Incidents in 2021	3
Number of Incidents reported to the EPA via EDEN in 2021	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 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>D0245-SIP:01</b>	Any improvement works required to ensure compliance with the emission limit values as set out in Schedule A: Discharges & Discharge Monitoring	C	31/12/2019	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
<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
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?	Yes
List reason e.g. additional SWO identified	Alteration to agglomeration boundary and relocation of primary discharge point
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?	Yes
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:

Signed:   Date: 09/05/2022

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

	Ortho-Phosphate P	pH	Suspended Solids	Total Phosphate P	Temperature	Dissolved Oxygen	Visual Inspection	Faecal Coliforms	E Coli	Enterococci	Biological Oxygen Demand
Sample Date	mg/l	pH units	mg/l	mg/l	Degrees C	mg/l	Descriptive	no./100mls	MPN/100mls	cfu/100mls	mg/l
	TW33002097SR6005										
3-Feb-2021	0.22	8.1	61	0.25	8	9.46	Slight Brown Tint, No Tarryresidue,Min.Oil,Detergents,Other Materials	659	81	160	4.9
1-Apr-2021	0.03	8	151	0.11	9.5	11.4	Clear, No Tarry residue,Min.Oil,Detergents,Other Materials				2
9-Sep-2021	0.02	8.1	143	0.05	18	9.55	Clear, No Tarry residue,Min.Oil,Detergents,Other Materials	4	0	> 200	2.5
16-Nov-2021	0.02	7.96	48	0.05	12.7	10.21	Clear, No Tarry residue,Min.Oil,Detergents,Other Materials				2
<b>Mean</b>	<b>0.0725</b>	<b>8.04</b>	<b>100.75</b>	<b>0.115</b>	<b>12.05</b>	<b>10.155</b>		<b>331.5</b>	<b>40.5</b>	<b>160</b>	<b>2.85</b>



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	
TW33002097RS6005	271959,108203	TPEFFD0245SW001	Yes	No	No	Yes	Poor

**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	%EQS
BOD mg/l	TW33002097RS6004	No Data available	TW33002097RS6005	2.85	4.0	
Ortho-Phosphate (as P) mg/l	TW33002097RS6004	No Data available	TW33002097RS6005	0.078	0.060	
Ammonia (as N) mg/l	TW33002097RS6004	No Data available	TW33002097RS6005	No data	0.140	

TW33002097SR6005