Annual Environmental Report

2024

Cahersiveen

D0181-01

CONTENTS

1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2024 AER

This Annual Environmental Report has been prepared for D0181-01, Cahersiveen, in Kerry 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)

- Cahersiveen WWTP with a Plant Capacity PE of 5600, the treatment type is 2 - Secondary treatment .

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
TPEFF1300D0181SW001	Cahersiveen WWTP	Treated	Compliant	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 CAHERSIVEEN WWTP - TREATED DISCHARGE

2.1.1 INFLUENT MONITORING SUMMARY - CAHERSIVEEN 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
pH pH units	12	7.60	7.15
COD-Cr mg/l	12	1064	222
BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l	12	311	70
Suspended Solids mg/l	12	1668	228
Hydraulic Capacity	N/A	2964	1284

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 greater than the peak Treatment Plant Capacity. Further details on the plant capacity and efficiency can be found under the sectional ‘Operational Performance Summary’. The design of the wastewater treatment plant allows for peak values and therefore the peak loads have not impacted on compliance with Emission Limit Values.

2.1.2 EFFLUENT MONITORING SUMMARY - TPEFF1300D0181SW001

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	19	Pass
Suspended Solids mg/l	35	87.5	N/A	12	N/A	N/A	8.86	Pass
BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l	25	50	N/A	12	N/A	N/A	1.68	Pass
pH pH units	9	9	N/A	12	N/A	N/A	6.68	Pass
ortho-Phosphate (as P) - unspecified mg/l	8	9.6	N/A	12	N/A	N/A	0.532	Pass
Salinity 0/oo	N/A	N/A	N/A	1	N/A	N/A	2.20	
Enterococci (Intestinal) no./100mls	N/A	N/A	N/A	12	N/A	N/A	5229	
E. Coli no./100mls	N/A	N/A	N/A	12	N/A	N/A	13028	
Faecal coliforms no./100mls	N/A	N/A	N/A	12	N/A	N/A	4702	

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)
Salinity(Lab) 0/oo	N/A	N/A	N/A	5	N/A	N/A	4.36	
Visual Inspection Descriptive	N/A	N/A	N/A	12	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):

Not applicable

Significance of Results:

The WWTP is compliant with the ELV's set in the Wastewater Discharge Licence.

2.1.3 AMBIENT MONITORING SUMMARY FOR THE TREATMENT PLANT DISCHARGE TPEFF1300D0181SW001

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	45477, 79188	TW13003207VL1002	No	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 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 compliant with the ELV's set in the wastewater discharge licence.

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.

The discharge from the wastewater treatment plant does not have an observable impact on the designated shellfish water quality.

The discharge from the wastewater treatment plant does not have an observable impact on the coastal/transitional water quality.

2.1.4 OPERATIONAL PERFORMANCE SUMMARY - CAHERSIVEEN WWTP

2.1.4.1 Treatment Efficiency Report - Cahersiveen 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)
COD	132463	9667	93
SS	136016	4398	97

Parameter	Influent mass loading (kg/year)	Effluent mass emission (kg/year)	Efficiency (% reduction of influent load)
cBOD	41821	833	98
TN	N/A	N/A	N/A
TP	N/A	N/A	N/A

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

2.1.4.2 Treatment Capacity Report Summary - Cahersiveen 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.

Cahersiveen WWTP	
Peak Hydraulic Capacity (m^3/day) - As Constructed	2704
DWF to the Treatment Plant (m^3/day)	901
Current Hydraulic Loading - annual max (m^3/day)	2964
Average Hydraulic loading to the Treatment Plant (m^3/day)	1283.86
Organic Capacity (PE) - As Constructed	5600
Organic Capacity (PE) - Collected Load (peak week)[Note1]	1988
Organic Capacity (PE) - Remaining	3612
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 - CAHERSIVEEN 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)
Domestic /Septic Tank Sludge	845	Volume (m3)		0.18	Yes	Yes	No

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)
Abatement equipment off-line	Broken Sewer Pipe	No	Yes

3.2.2 SUMMARY OF OVERALL INCIDENTS

Question	Answer
Number of Incidents in 2024	1
Number of Incidents reported to the EPA via EDEN in 2024	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 2024 (No. of events)	Total volume discharged in 2024 (m3)	Monitoring Status
SW002	47022, 79722	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
TBC	46963, 79687	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
TBC	47039, 79736	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
TBC	48116, 80277	Yes	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)?	Unknown

SWO Summary	
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
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
D0181-01-Priority Substances Assessment	Yes	No
D0181-01-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
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 include 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: 05/06/2025

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	
TW13003207VL1002	45477, 79188	TPEFF1300D0181SW001	No	No	No	Yes	Good

Ambient Impact Assessment Table

Parameter Name	Downstream Monitoring Point Location	Downstream Monitoring Point Annual Mean	EQS (Mean)	%EQS
BOD mg/l	TW13003207VL1002	0.780	4.0	
Ortho-Phosphate (as P) mg/l	TW13003207VL1002	0.009	0.060	
pH pH units	TW13003207VL1002	8.050		
Dissolved Oxygen %saturation	TW13003207VL1002	102.070	70 - 130	
Dissolved Oxygen mg/l	TW13003207VL1002	9.400		
E. Coli no./100mls	TW13003207VL1002	78.786		
Faecal Coliforms no./100mls	TW13003207VL1002	1196.286		
Intestinal enterococci no./100mls	TW13003207VL1002	159.286		
Salinity PSU	TW13003207VL1002	33.375		
Suspended Solids mg/l	TW13003207VL1002	23.350		
Temperature °C	TW13003207VL1002	15.650		

Ambient Data Tables

				BOD 5 - days (Total)	Dissolved Oxygen	Dissolved Oxygen	E. Coli	Faecal Coliforms	Intestinal enterococci	ortho-phosphate	pH	Salinity	Suspended Solids	Temperature
Monitored Point	Station	Monitoring Point	Sample date	mg/l	mg/l	% saturation	no./100 mls	no./100mls	no./100mls	mg/l	pH Units	PSU	mg/l	°C
Ferta	TW13003207VL1002	Downstream	08/04/2024	<1.0	10.43		63	160	52	0.01	8.0	32.70	6	10.5
Ferta	TW13003207VL1002	Downstream	03/09/2024	<1.0	8.70		<10	<10	<10	<0.01	8.2	33.50	50	16.7
Ferta	TW13003207VL1002	Downstream	26/09/2024	1	9.40	105.41	<10	<10	<10	<0.01	8.1	34.5	28	17.8
Ferta	TW13003207VL1002	Downstream	25/10/2024	<1.0	9.07	98.73	238	4611	571	0.01	7.9	32.80	9	17.6
			Mean	0.780	9.400	102.070	78.786	1196.286	159.286	0.009	8.050	33.375	23.250	15.650

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.