Annual Environmental Report

2021

Castletownbere

D0297-01

CONTENTS

1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2021 AER

This Annual Environmental Report has been prepared for D0297-01, Castletownbere, in Cork 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.

All septic tanks serving Castletownbere agglomeration were decommissioned in Q4 2021. A new sewerage scheme with 4 no. new WWPS's and a new WWTP was constructed and being commissioned.

1.2 TREATMENT SUMMARY

- Currently there is no treatment provided at Castletownbere . 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
TPEFF0500D0297SW004	Foildarrig Housing Septic Tank	Treated	Non-Compliant	N/A
TPEFF0500D0297SW002	CAMETRINGANE SEPTIC TANK	Treated	Non-Compliant	N/A
TPEFF0500D0297SW003	Castletownbere - Hospital Septic Tank	Treated	Non-Compliant	N/A

Discharge Point Reference	Treatment Plant	Discharge Type	Compliance Status	Parameters failing if relevant
TPEFF0500D0297SW001	BRANDYHALL BRIDGE SEPTIC TANK	Untreated	Non-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 INFLUENT AND EFFLUENT MONITORING SUMMARY

2.1.1 INFLUENT MONITORING SUMMARY

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
There is no Influent data included in the AER.			

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 greater 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'.

2.1.2 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)
There is no Effluent data included in the AER.								

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 set in the Wastewater Discharge Licence cannot be measured, as there is not influent or effluent data included in the AER.

2.1.3 AMBIENT MONITORING SUMMARY FOR THE TREATMENT PLANT DISCHARGE

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
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 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 negative impact on the Water Framework Directive status.

2.1.4 OPERATIONAL PERFORMANCE SUMMARY

2.1.4.1 Treatment Efficiency Report

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)
There is no Treatment Efficiency data included in the AER.			

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

2.1.4.2 Treatment Capacity Report Summary

There is no Treatment Capacity Report Summary included in the AER

2.1.5 SLUDGE / OTHER INPUTS

'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)
There is no Sludge and Other Input data for the Treatment Plant included in the AER.							

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
There are no Storm Water Overflows in this Agglomeration.							

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
D0297-SIP:01	Any storm water overflows associated with proposed waste water treatment plant and ancillary works	C	31/12/2015	Yes	Work ongoing on-site	2022	
D0297-SIP:02	Cessation of all secondary discharges	C	31/12/2015	Yes	Work ongoing on-site	2022	
D0297-SIP:03	Discharges from GW05 to cease by 31/12/15 or upon upgrading of sewerage system, whichever is sooner	A	31/12/2015	Yes	Work ongoing on-site	2022	
D0297-SIP:04	Discharges from GW06 to cease by 31/12/15 or upon upgrading of sewerage system, whichever is sooner	A	31/12/2015	Yes	Work ongoing on-site	2022	

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
D0297-SIP:05	Discharges from SW01 to cease by 31/12/15 or upon upgrading of sewerage system, whichever is sooner	A	31/12/2015	Yes	Work ongoing on-site	2022	
D0297-SIP:06	Discharges from SW02 to cease by 31/12/15 or upon upgrading of sewerage system, whichever is sooner	A	31/12/2015	Yes	Work ongoing on-site	2022	
D0297-SIP:07	Discharges from SW03 to cease by 31/12/15 or upon upgrading of sewerage system, whichever is sooner	A	31/12/2015	Yes	Work ongoing on-site	2022	
D0297-SIP:08	Discharges from SW04 to cease by 31/12/15 or upon upgrading of sewerage system, whichever is sooner	A	31/12/2015	Yes	Work ongoing on-site	2022	
D0297-SIP:09	Waste water treatment plant and ancillary works	C	31/12/2015	Yes	Work ongoing on-site	2022	

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

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
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	Relocation of Primary Discharge Point, Change to Population Equivalent Threshold band and proposed new emission limit value
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	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

Castletownbere Ambient	EQS		97779	100594	95%ile	Mean
	Mean	95%ile	19/05/2021 11:40	25/08/2021 12:15		
D.O % O_2	80%<95%ile<120%		102.4	115.5	114.845	108.95
Temperature C°	≤ 1.5 C° increase		12.10	18.10	17.8	15.10
pH	6 < pH < 9		8.1	8.2	8.195	8.15
BOD mg/L	N/A		2.3	1.10	2.24	1.70
Orthophosphate (P) mg/l	N/A		0.030	0.005	0.029	0.02
Ammonia (N) mg/l	N/A		0.0175	0.0175	0.0175	0.02
DIN (N) mg/l	≤ 0.25 @ 34 PSU		0.0175	0.0175	0.0175	0.02
TON (N) mg/l	≤ 0.25 @ 34 PSU		0.01	0.01	0.01	0.01
Faecal Coliforms MPN/100mls	N/A		1782	0.5	1693	891
E.Coli MPN/100mls	N/A		1314	5	1249	660
Intestinal enterococci CFU/100mls	N/A		158	5	150	82

Ambient Monitoring Point from WWDL (or as agreeded with EPA)	Irish Grid Reference	EPA Feature Coding tool Code	Bathing Water	Drinking Water	FWPM	Shellfish	Current WFD Status
Downstream Monitoring Point	E67469 N44820	CW05003196BV1009	No designated	No	No	2km SE of Discharge location	Good

Significace of Results	
Did the ambient monitoring results meet the EQS Required?	Yes
Is there an obervable negative impact on water quality?	None apparent
List the parameters causing the impact?	None
A deterioration has been identified, but it is not known if it is caused by the TP	n/a
Do the discharges from the WWTP have an observable negative impact on the WFD?	Possibly
Any other known impacts	Catchment Pressures