

Annual Environmental Report

2022



Dungarvan

D0017-01

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1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2022 AER

This Annual Environmental Report has been prepared for D0017-01, Dungarvan, in Waterford 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 was no major capital or operational changes undertaken

1.2 TREATMENT SUMMARY

The agglomeration is served by a wastewater treatment plant(s)

- Dungarvan (Waterford County) WWTP with a Plant Capacity PE of 25000, 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
TPEFF3100D0017SW001	Dungarvan (Waterford County) WWTP	Treated	Compliant	N/A

1.4 LICENCE SPECIFIC REPORTING

Assessment / Report

Shellfish Impact Assessment

2 TREATMENT PLANT PERFORMANCE AND IMPACT SUMMARY

2.1 DUNGARVAN (WATERFORD COUNTY) WWTP - TREATED DISCHARGE

2.1.1 INFLUENT MONITORING SUMMARY - DUNGARVAN (WATERFORD COUNTY) 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	7.50	7.36
COD-Cr mg/l	12	628	380
BOD, 5 days with Inhibition (Carbonaceo mg/l	12	233	126
Total Phosphorus (as P) mg/l	12	3.30	2.40
Suspended Solids mg/l	12	190	85
Total Nitrogen mg/l	12	19	13
Hydraulic Capacity	N/A	14338	10767

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 less 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 - TPEFF3100D0017SW001

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	1	N/A	69	Pass
Suspended Solids mg/l	35	87.5	N/A	12	1	N/A	15	Pass
BOD, 5 days with Inhibition (Carbonaceous) mg/l	25	50	N/A	12	N/A	N/A	3.42	Pass
Ammonia-Total (as N) mg/l	10	12	N/A	12	N/A	N/A	1.03	Pass
Total Oxidised Nitrogen (as N) mg/l	10	12	N/A	12	N/A	N/A	3.80	Pass
pH pH units	9	9	N/A	12	N/A	N/A	7.17	Pass

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)
Total Phosphorus (as P) mg/l	N/A	N/A	N/A	12	N/A	N/A	1.82	
Faecal coliforms no./100mls	N/A	N/A	N/A	12	N/A	N/A	168178	
E. Coli no./100mls	N/A	N/A	N/A	12	N/A	N/A	58593	
Enterococci (Intestinal) MPN/100ml	N/A	N/A	N/A	12	N/A	N/A	1840	
ortho-Phosphate (as P) - unspecified mg/l	N/A	N/A	N/A	12	N/A	N/A	1.34	

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 TPEFF3100D0017SW001

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
There is no Ambient data included in the AER.							

2.1.4 OPERATIONAL PERFORMANCE SUMMARY - DUNGARVAN (WATERFORD COUNTY) WWTP

2.1.4.1 Treatment Efficiency Report - Dungarvan (Waterford County) 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)
TN	49818	N/A	N/A
cBOD	480301	13200	97
SS	325132	57100	82

Parameter	Influent mass loading (kg/year)	Effluent mass emission (kg/year)	Efficiency (% reduction of influent load)
TP	9173	6995	24
COD	1453179	265130	82

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

2.1.4.2 Treatment Capacity Report Summary - Dungarvan (Waterford County) 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.

Dungarvan (Waterford County) WWTP	
Peak Hydraulic Capacity (m ³ /day) - As Constructed	15000
DWF to the Treatment Plant (m ³ /day)	4920
Current Hydraulic Loading - annual max (m ³ /day)	14338
Average Hydraulic loading to the Treatment Plant (m ³ /day)	10767
Organic Capacity (PE) - As Constructed	25000
Organic Capacity (PE) - Collected Load (peak week) ^{Note1}	15087
Organic Capacity (PE) - Remaining	9913
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 - DUNGARVAN (WATERFORD COUNTY) 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	7080	Weight (Tonnes)		0.18	No	Yes	Yes

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 2022.			

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	No. of incident occurrences	Recurring (Y/N)	Closed (Y/N)
Uncontrolled release	SWO Lack of tank storage capacity	1	Yes	No
Uncontrolled release	Network Infrastructure	1	Yes	No
Uncontrolled release	EO caused by pump failure	1	No	Yes

Incident Type	Cause	No. of incident occurrences	Recurring (Y/N)	Closed (Y/N)
Uncontrolled release	Plant or equipment maintenance at WWTP	1	No	Yes
Uncontrolled release	Blocked Sewer	1	No	Yes
Uncontrolled release	Plant or equipment breakdown at WWTP	1	No	Yes
Uncontrolled release	EO caused by power failure	1	No	No
Uncontrolled release	EO caused by pump failure	1	No	No

3.2.2 SUMMARY OF OVERALL INCIDENTS

Question	Answer
Number of Incidents in 2022	8
Number of Incidents reported to the EPA via EDEN in 2022	8
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 2022 (No. of events)	Total volume discharged in 2022 (m3)	Monitoring Status
SW016	225660,93321	Yes	Low Significance	Not Meeting Criteria	Unknown	Unknown	Not Monitored
TBC	226133,92667	No	TBC	Not yet Assessed	Unknown	262409	Monitored
TBC	226181,93136	No	Low Significance	Not Meeting Criteria	Unknown	Unknown	Not Monitored
TBC	225028,92518	No	TBC	Not yet Assessed	Unknown	Unknown	Monitored
TBC	225677,93314	No	Low Significance	Not Meeting Criteria	Unknown	Unknown	TBC
SW017	226239,93116	Yes	Low Significance	Not Meeting Criteria	Unknown	Unknown	Not Monitored

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 2022 (No. of events)	Total volume discharged in 2022 (m3)	Monitoring Status
SW018	226133,92667	Yes	Low Significance	Not Meeting Criteria	Unknown	Unknown	Not Monitored
SW019	226595,92869	Yes	Low Significance	Not Meeting Criteria	Unknown	Unknown	Not Monitored
TBC	226595,92869	No	Low Significance	Not Meeting Criteria	Unknown	Unknown	Not Monitored
TBC	226595,92869	No	Low Significance	Not Meeting Criteria	Unknown	Unknown	TBC
TBC	225038,92504	No	Low Significance	Not Meeting Criteria	Unknown	Unknown	Monitored
TBC	229513,92739	No	Low Significance	Not Meeting Criteria	Unknown	Unknown	TBC
TBC	229513,92739	No	TBC	Not yet Assessed	Unknown	Unknown	Monitored
TBC	228818,93821	No	Low Significance	Not Meeting Criteria	Unknown	Unknown	TBC
TBC	228818,93821	No	TBC	Not yet Assessed	Unknown	Unknown	Monitored
TBC	230924,92443	No	Medium Significance	Meeting Criteria	Unknown	Unknown	Monitored

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 2022 (No. of events)	Total volume discharged in 2022 (m3)	Monitoring Status
TBC	228659,95010	No	Low Significance	Not Meeting Criteria	Unknown	Unknown	Monitored
TBC	226028,92489	No	Low Significance	Not Meeting Criteria	Unknown	Unknown	Not Monitored
TBC	226196,93757	No	Low Significance	Not Meeting Criteria	Unknown	Unknown	Monitored
TBC	225524,93366	No	Low Significance	Not Meeting Criteria	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 monitored SWOs in the agglomeration in the year (m3)?	262409
Is each SWO identified as not meeting DoEHLG Guidance included in the Programme of Improvements?	No
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?	Yes

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
D0017-SIP:01	Discharge from SW20 (Kilminnin North) to be discontinued	A	01/11/2011	Yes	Works Completed		
D0017-SIP:02	Implement a programme of works to ensure SW2 only discharge in the event of an emergency, that is, during pump failure at the associated pumping station (see Condition 5.6)	C	01/01/2011	Yes	At Planning Stage		
D0017-SIP:03	Implement a programme of works to ensure SW3 only discharge in the event of an emergency, that is, during pump failure at the associated pumping station (see Condition 5.6)	C	01/01/2011	Yes	At Planning Stage		
D0017-SIP:04	SW16 - Upgrading of sewer network, as required, to ensure	C	01/11/2011	Yes	At Planning Stage	2031	

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
	Storm Water Overflows comply with the criteria outlined in the DoEHLG						
D0017-SIP:05	SW17 - Upgrading of sewer network, as required, to ensure Storm Water Overflows comply with the criteria outlined in the DoEHLG	C	01/11/2011	Yes	At Planning Stage	2031	
D0017-SIP:06	SW18 - Upgrading of sewer network, as required, to ensure Storm Water Overflows comply with the criteria outlined in the DoEHLG	C	01/11/2011	Yes	At Planning Stage	2031	
D0017-SIP:07	SW19 - Upgrading of sewer network, as required, to ensure Storm Water Overflows comply with the criteria outlined in the DoEHLG	C	01/11/2011	Yes	At Planning Stage	2031	

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
Priority Substances Assessment	Yes	2014	No
Shellfish Impact Assessment	Yes	2020	Yes

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	Additional SWOs 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	No
List reason e.g. changes to monitoring requirements	N/A
Have these processes commenced?	No
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: 25/04/2023

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

Acting Head of Environmental Regulation.

7 APPENDIX

Appendix

Appendix 7.1 - Ambient monitoring summary