Annual Environmental Report

2018

Youghal

D0139-01

CONTENTS

Revision Number	Description of Change	Date of Approval
1	Changes to section 2.1.4.2 Treatment Capacity Report Summary	23/05/2025

1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2018 AER

This Annual Environmental Report has been prepared for D0139-01, Youghal, 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 TREATMENT SUMMARY

Construction of a new WWTP for Youghal was substantially completed in 2017. The plant was commissioned in 2018 and officially opened in October 2018. Youghal was not served by a wastewater treatment plant in advance of this. The new WWTP has a Plant Capacity PE of 16000. The treatment process includes the following:

1.1.1 YOUGHAL WWTP

Treatment type	Yes / No	Details
Preliminary Treatment	Yes	Screening
Primary Treatment	No	
Secondary Treatment	Yes	Activated Sludge
Nutrient Removal	Yes	Nitrogen reduction
Tertiary Treatment	No	

1.2 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
TPEFF0500D0139SW001	Youghal WWTP	Treated	Non-Compliant	Shock load to the WWTP

1.3 LICENCE SPECIFIC REPORTING INCLUDED IN AER

Assessment / Report	Included in AER
There is no Licence Specific Reports included in the AER.	

2 TREATMENT PLANT PERFORMAND AND IMPACT SUMMARY

2.1 YOUGHAL WWTP - TREATED DISCHARGE

2.1.1 INFLUENT MONITORING SUMMARY - YOUGHAL 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
BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l	12	365	140.95
Total Nitrogen mg/l	12	52.7	28.1
Total Phosphorus (as P) mg/l	6	7.68	4.03
COD-Cr mg/l	12	899	426.53
Hydraulic Capacity	N/A	9955	3415

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’.

2.1.2 EFFLUENT MONITORING SUMMARY - TPEFF0500D0139SW001

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 with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
COD-Cr mg/l	125	250	0	12	2	2	91.99	Fail
Suspended Solids mg/l	35	87.5	0	12	2	2	55.44	Fail
BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l	25	50	0	12	2	2	14.58	Fail
Total Nitrogen mg/l	15	18	0	12	2	2	8.42	Fail
pH pH units	6-9	6-9	0	12	0	0	7.39	Pass

Notes:
1– This represents the Emission Limit Values after the Interpretation provided for under Condition 2 of the licence is applied

Cause of Exceedance(s):

Shock load to the WWTP

Significance of Results:

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

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	Code	Bathing Water	Drinking Water	FWPM	Shellfish	WFD Status
Downstream	210464, 78504	TPEFF0500D0139SW001	Yes	No	No	No	Moderate

The results for ambient results and / or additional monitoring data sets are included in the **Appendix 7.1**

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.

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.

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)	Comment
COD	466923	110571.17	76.32	
TP	4786	2238.52	53.23	
cBOD	154301	17526.38	88.64	
TN	30762	10124.8	67.09	

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

2.1.4.2 Treatment Capacity Report Summary

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.

Youghal WWTP	
Peak Hydraulic Capacity (m3/day) - As Constructed	10,800
DWF to the Treatment Plant (m3/day)	3600
Current Hydraulic Loading - annual max (m3/day)	9955
Average Hydraulic loading to the Treatment Plant (m3/day)	3415
Organic Capacity (PE) - As Constructed	16000
Organic Capacity (PE) - Collected Load (peak week)	11168
Organic Capacity (PE) - Remaining	4832
Will the capacity be exceeded in the next three years? (Yes/No)	No

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)
Other	30	Volume (m3)		0.01	Yes	Yes	Yes

2.1.6 SLUDGE REMOVAL

The amount of sludge removed from the wastewater treatment plant is shown below along with the transported destination of the sludge from the treatment plant.

Treatment Plant	Sludge type	Quantity	Unit	% Dry Solids	Destination
Youghal WWTP	Liquid Sludge	120	Volume (m3)	5	Carrigtwohill WWTP
Youghal WWTP	Dried Sludge	8	Volume (m3)	26	Enva Mallow
Youghal WWTP	Dried Sludge	203	Volume (m3)	24	Enva Midleton
Youghal WWTP	Dried Sludge	160	Volume (m3)	22	Enva Rathcoursey

3 COMPLAINTS AND INCIDENTS

3.1 COMPLAINTS SUMMARY

A summary of complaints of an environmental nature is included below.

Number of Complaints	Nature of Complaint	Number Open Complaints	Number Closed Complaints
19	Blocked Sewer	0	19

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)
Non-compliance	Shock load to WWTP	1	Yes	Yes
Uncontrolled release	Plant or equipment breakdown at WWTP	1	No	Yes
Spillage	Plant or equipment breakdown at WWTP	1	No	Yes

Spillage	Other	1	No	Yes
Uncontrolled release	Other	1	No	No
Other	Plant or equipment breakdown at WWTP	1	No	Yes
Spillage	Tank Overflow	1	No	Yes
Uncontrolled release	SWO Exceptional rainfall	1	No	No
Uncontrolled release	Plant or equipment breakdown at WWTP	1	No	Yes
Non-compliance	Shock load to WWTP	1	No	No
Uncontrolled release	EO caused by pump failure	1	No	Yes

3.2.2 SUMMARY OF OVERALL INCIDENTS

Question	Answer
Number of Incidents in 2018	11
Number of Incidents reported to the EPA via EDEN in 2018	11
Explanation of any discrepancies between the two numbers above	

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	Irish Grid Ref.	Included in Schedule A4 of the WWDL	Significance of the overflow(High / Medium / Low)	Assessed against DoEHLG Criteria	No. of times activated in 2018 (No. of events)	Total volume discharged in 2018 (m3)	Monitoring Status
SW000	N/A	Yes	Unknown	Not yet Assessed	Unknown	Unknown	Not Monitored
SW005	N/A	Yes	Unknown	Not yet Assessed	Unknown	Unknown	Not Monitored
SW006	N/A	Yes	Unknown	Not yet Assessed	Unknown	Unknown	Not Monitored

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?	No

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 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
D0139-SIP:01	Decommissioning of Cork Hill comminutor station	C	31/12/2015	Yes	Works Completed		
D0139-SIP:02	New waste water treatment plant (with denitrification) and ancillary works	C	30/11/2017	Yes	Works Completed		Date amended as per Technical Amendment A
D0139-SIP:03	SW000 Dunn's Park Discharge to cease as Primary Discharge and to operate as a SWO	A		No	Not started		Upon construction and commissioning of the proposed primary discharge point, SW001

D0139-SIP:04	SW002 Paxe's Lane Discharge as a Secondary Discharge to cease and discharge point to operate as an emergency Overflow	A	30/11/2017	Yes	Works Completed		Date amended as per Technical Amendment A. This SWO maybe required to operate for >1 in 20-year events. While overflow was to become an emergency overflow under the licence, it will need to be retained as an SWO.
D0139-SIP:05	SW003 Foxhole Discharge as a Secondary Discharge to cease and discharge point to be decommissioned	A	30/11/2017	Yes	Works Completed		Date amended as per Technical Amendment A.
D0139-SIP:06	SW007 Dunn's Park Discharge as a SWO to cease and discharge point to operate as an Emergency Overflow	A	31/12/2019	No	Not Started		Date amended as per Technical Amendment AThis SWO is required to operate for 1 in 20-year events. While overflow was to become an emergency overflow under the licence, it will need to be retained as an SWO.
D0139-SIP:07	SW008 Foxhole Discharge as a SWO to cease and discharge point to operate as an Emergency Overflow	A	30/11/2017	Yes	Works Completed		Date amended as per Technical Amendment A

D0139-SIP:08	SW009 Kilcoran Discharge as a SWO to cease and discharge point to be decommissioned	A	30/11/2017	Yes	Works Completed		Date amended as per Technical Amendment A
D0139-SIP:09	SW010 Summerfield B Discharge as a SWO to cease and discharge point to be decommissioned	A	30/11/2017	Yes	Decommissioned but reinstated following flooding		Date amended as per Technical Amendment A
D0139-SIP:10	Upgrade of drainage network	C	31/12/2017	Yes	Works Completed		Date amended as per Technical Amendment A
D0139-SIP:11	Upgrade of drainage network	C	31/12/2017	Yes	Works Completed		Date amended as per Technical Amendment A
D0139-SIP:12	Upgrade of Front Strand storm water holding tank	C	31/12/2015	Yes	Works Completed		
D0139-SIP:13	Upgrade of Summerfield and Strand Pumping Station, plus installation of a new pumping station at Green Park	C	30/11/2017	Yes	Works Completed		Date amended as per Technical Amendment A
D0139-SIP:14	Upgrade of the: Summerfield Pumping Station (associated with SW010), and Strand Pumping Station (associated with SW005)	C	31/12/2015	Yes	Works Completed		
D0139-SIP:15	Work to be completed as per Condition 5.6	C		No	On-going		

A summary of the status of any improvements identified by under Condition 5.2 is included below.

4.2.2 IMPROVEMENT PROGRAMME SUMMARY

Improvement Identifier	Improvement Description	Improvement Source	Expected Completion Date	Comments
There are no Improvements Programme for this Agglomeration.				

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 Table.

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 list of the various reports required for this agglomeration and a brief summary of their recommendations.

5.a Licence Specific Reports Summary Table

Licence Specific Report	Required by licence	Year included in AER	Included in this AER	Reference to relevant section of AER
There is no Licence Specific Report Required in this AER Annual Review.				

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?	No
List reason e.g. additional SWO identified	
Is there a need to request/advise the EPA of any modifications to the existing WWDL?	yes
List reason e.g. changes to monitoring requirements	Review to be submitted
Have these processes commenced?	No
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: 23/05/2025

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 ,

Eleanor Roche

Head of Environmental Regulation.

7 APPENDIX

Appendix
Appendix 7.1 - Ambient monitoring summary