

# Annual Environmental Report

2023



Westport

D0055-01

## **CONTENTS**

### **1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2023 AER**

- 1.1 ANNUAL STATEMENT OF MEASURES
- 1.2 TREATMENT SUMMARY
- 1.3 ELV OVERVIEW
- 1.4 LICENSE SPECIFIC REPORT INCLUDED IN AER

### **2 TREATMENT PLANT PERFORMANCE AND IMPACT SUMMARY**

- 2.1 WESTPORT WWTP - TREATED DISCHARGE
  - 2.1.1 INFLUENT SUMMARY - WESTPORT WWTP
  - 2.1.2 EFFLUENT MONITORING SUMMARY - WESTPORT WWTP -
  - 2.1.3 AMBIENT MONITORING SUMMARY FOR THE TREATMENT PLANT DISCHARGE -
  - 2.1.4 OPERATIONAL REPORTS SUMMARY FOR WESTPORT WWTP
  - 2.1.5 SLUDGE/OTHER INPUTS TO WESTPORT WWTP

### **3 COMPLAINTS AND INCIDENTS**

- 3.1 COMPLAINTS SUMMARY
- 3.2 REPORTED INCIDENTS SUMMARY
  - 3.2.1 SUMMARY OF INCIDENTS
  - 3.2.2 SUMMARY OF OVERALL INCIDENTS

### **4 INFRASTRUCTURAL ASSESSMENT AND PROGRAMME OF IMPROVEMENTS**

- 4.1 STORM WATER OVERFLOW IDENTIFICATION AND INSPECTION REPORT
  - 4.1.1 SWO IDENTIFICATION AND INSPECTION SUMMARY REPORT
- 4.2 REPORT ON PROGRESS MADE AND PROPOSALS BEING DEVELOPED TO MEET THE IMPROVEMENT PROGRAMME REQUIREMENTS
  - 4.2.1 SPECIFIED IMPROVEMENT PROGRAMME SUMMARY
  - 4.2.2 IMPROVEMENT PROGRAMME SUMMARY
  - 4.2.3 SEWER INTEGRITY RISK ASSESSMENT

### **5 LICENCE SPECIFIC REPORTS**

- 5.1 SHELLFISH IMPACT ASSESSMENT
- 5.2 TOXICITY OF FINAL EFFLUENT

### **6 CERTIFICATION AND SIGN OFF**

- 6.1 SUMMARY OF AER CONTENTS



# 1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2023 AER

This Annual Environmental Report has been prepared for D0055-01, Westport, in Mayo 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.

## 1.2 TREATMENT SUMMARY

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

- Westport WWTP with a Plant Capacity PE of 15042, the treatment type is 3NP - Tertiary N&P removal with UV 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
TPEFF2200D0055SW001	Westport WWTP	Treated	Non-Compliant	Mercury - unspecified µg/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 WESTPORT WWTP - TREATED DISCHARGE

#### 2.1.1 INFLUENT MONITORING SUMMARY - WESTPORT 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
Total Phosphorus (as P) mg/l	12	6.00	2.29
BOD, 5 days with Inhibition (Carbonaceo mg/l	12	102	45
COD-Cr mg/l	12	198	118
Total Nitrogen mg/l	12	28	16
Suspended Solids mg/l	12	262	82
Hydraulic Capacity	N/A	23007	7201

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'.

## 2.1.2 EFFLUENT MONITORING SUMMARY - TPEFF2200D0055SW001

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	14	N/A	N/A	19	Pass
Suspended Solids mg/l	35	87.5	N/A	14	N/A	N/A	3.64	Pass
BOD, 5 days with Inhibition (Carbonaceo mg/l)	25	50	N/A	14	N/A	N/A	1.44	Pass
Temperature °C	25	25	N/A	14	N/A	N/A	9.70	Pass
pH pH units	9	9	N/A	14	N/A	N/A	7.33	Pass
Ammonia-Total (as N) mg/l	5	6	N/A	14	N/A	N/A	0.145	Pass
Copper - unspecified mg/l	0.01	0.01	N/A	1	N/A	N/A	0.007	Pass
Enterococci (Intestinal) cfu/100ml	N/A	N/A	N/A	2	N/A	N/A	N/A	
Manganese - unfiltered µg/l	N/A	N/A	N/A	1	N/A	N/A	59	

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>Boron - unspecified mg/l</b>	N/A	N/A	N/A	1	N/A	N/A	0.130	
<b>Mercury - unspecified µg/l</b>	N/A	N/A	N/A	1	1	1	0.354	
<b>Faecal coliforms no./100mls</b>	N/A	N/A	N/A	2	N/A	N/A	8.81	
<b>Total Phosphorus (as P) mg/l</b>	N/A	N/A	N/A	14	N/A	N/A	0.706	
<b>Nitrite (as N) mg/l</b>	N/A	N/A	N/A	14	N/A	N/A	0.045	
<b>PCBs (Total) µg/l</b>	N/A	N/A	N/A	1	N/A	N/A	0.049	
<b>Nickel - unspecified µg/l</b>	N/A	N/A	N/A	1	N/A	N/A	1.00	
<b>Arsenic - unspecified µg/l</b>	N/A	N/A	N/A	1	N/A	N/A	1.00	
<b>Cadmium - unspecified µg/l</b>	N/A	N/A	N/A	1	N/A	N/A	0.318	

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)
Lead - unspecified µg/l	N/A	N/A	N/A	1	N/A	N/A	0.707	
Antimony - unspecified µg/l	N/A	N/A	N/A	1	N/A	N/A	0.707	
Chromium - unspecified µg/l	N/A	N/A	N/A	1	N/A	N/A	0.707	
Nitrate (as N) mg/l	N/A	N/A	N/A	14	N/A	N/A	5.73	
ortho-Phosphate (as P) - unspecified mg/l	N/A	N/A	N/A	14	N/A	N/A	0.580	
Total Nitrogen mg/l	N/A	N/A	N/A	14	N/A	N/A	6.19	
Salinity PSU	N/A	N/A	N/A	14	N/A	N/A	0.446	
E. Coli MPN/100ml	N/A	N/A	N/A	2	N/A	N/A	12	
Conductivity @20°C µS/cm	N/A	N/A	N/A	12	N/A	N/A	1085	
Fats, Oils & Greases mg/l	N/A	N/A	N/A	4	N/A	N/A	3.54	

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)
Iron - unfiltered µg/l	N/A	N/A	N/A	1	N/A	N/A	73	
Chloride mg/l	N/A	N/A	N/A	2	N/A	N/A	425	
Aluminium - unspecified µg/l	N/A	N/A	N/A	1	N/A	N/A	17	
Selenium - unfiltered µg/l	N/A	N/A	N/A	1	N/A	N/A	3.54	

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):

Refer to Incident Section of Report.

### Significance of Results:

The WWTP is non compliant with the ELVs set in the Wastewater Discharge Licence. The impact on receiving waters is assessed further in Section 2.

## 2.1.3 AMBIENT MONITORING SUMMARY FOR THE TREATMENT PLANT DISCHARGE TPEFF2200D0055SW001

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	97738, 285114	TW22005283WT1001	No	No	No	Yes	Good

Where the receiving water body is not a river or where the data is not in EDEN – the Ambient data will be appended.

### Significance of Results:

The WWTP discharge was not compliant with the ELV's set in the wastewater discharge licence for the following: .

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 - WESTPORT WWTP

### 2.1.4.1 Treatment Efficiency Report - Westport 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)
SS	202589	8264	96
TN	39166	14069	64
COD	292783	44048	85
cBOD	111549	3277	97
TP	5661	1604	72

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

### 2.1.4.2 Treatment Capacity Report Summary - Westport 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.

Westport WWTP	
Peak Hydraulic Capacity (m <sup>3</sup> /day) - As Constructed	13650
DWF to the Treatment Plant (m <sup>3</sup> /day)	4550
Current Hydraulic Loading - annual max (m <sup>3</sup> /day)	23007
Average Hydraulic loading to the Treatment Plant (m <sup>3</sup> /day)	7201
Organic Capacity (PE) - As Constructed	15042
Organic Capacity (PE) - Collected Load (peak week) <sup>Note1</sup>	10405
Organic Capacity (PE) - Remaining	4637
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 - WESTPORT 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)
<b>Other</b>	3259	Volume (m3)	39.68	0.12	Yes	Yes	No
<b>Domestic /Septic Tank Sludge</b>	1408	Volume (m3)	17.14	0.05	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
1	Blocked Sewer	0	1

### 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)
Uncontrolled release	Network Infrastructure	No	Yes
Abatement equipment off-line	Plant or equipment breakdown at WWTP	No	No

Incident Type	Cause	Recurring (Y/N)	Closed (Y/N)
<b>Uncontrolled release</b>	Network Infrastructure	No	Yes
<b>Uncontrolled release</b>	Plant or equipment breakdown at WWTP	No	Yes
<b>Abatement equipment off-line</b>	Plant or equipment breakdown at WWTP	No	Yes
<b>Uncontrolled release</b>	SWO exceptional rainfall and overflow expected	No	Yes
<b>Uncontrolled release</b>	SWO exceptional rainfall and overflow expected	No	Yes
<b>Uncontrolled release</b>	Network Infrastructure	No	Yes
<b>Uncontrolled release</b>	Network Infrastructure	No	Yes
<b>Uncontrolled release</b>	Plant or equipment breakdown at WWTP	No	Yes
<b>Abatement equipment off-line</b>	Plant or equipment breakdown at WWTP	No	Yes
<b>Uncontrolled release</b>	Network Infrastructure	Yes	Yes
<b>Uncontrolled release</b>	SWO exceptional rainfall and overflow expected	No	Yes
<b>Uncontrolled release</b>	Network Infrastructure	No	Yes
<b>Abatement equipment off-line</b>	Plant or equipment breakdown at WWTP	No	No
<b>Monitoring equipment off-line</b>	Plant or equipment breakdown at WWTP	No	Yes

### 3.2.2 SUMMARY OF OVERALL INCIDENTS

Question	Answer
Number of Incidents in 2023	16
Number of Incidents reported to the EPA via EDEN in 2023	16
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 2023 (No. of events)	Total volume discharged in 2023 (m3)	Monitoring Status
TBC	101163,283165	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
TBC	100899,283881	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	Monitored
TBC	97793,284161	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	Monitored
SW2	98049,285025	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	Monitored
TBC	99761,285282	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	Monitored
TBC	98069,284545	Yes	Low 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 2023 (No. of events)	Total volume discharged in 2023 (m3)	Monitoring Status
TBC	100616,284091	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	Monitored
TBC	97333,284349	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	TBC
TBC	97158,283952	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	Monitored
TBC	96642,283265	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	Monitored
TBC	98941,283711	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	Monitored
TBC	97528,284776	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	Monitored
TBC	100862,284305	Yes	Low Significance	Meeting Criteria	Unknown	Unknown	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 wastewater discharge by metered SWOs during the year (m3)?	N/A
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

## SWO Summary

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
D0055-01-Shellfish Impact Assessment	Yes	No
D0055-01-Toxicity of Final Effluent	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?	N/A
List reason e.g. additional SWO identified	N/A
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?	N/A
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: 11/06/2024

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**

There are no Appendices included