Annual Environmental Report 2018



Dunmore East

D0170-01

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1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2018 AER

This Annual Environmental Report has been prepared for D0170-01, Dunmore East, in Waterford in accordance with the requirements of the wastewater discharge licence for the agglomeration. Specified reports are included as an appendix to the AER as follows:

1.1 Licence specific reporting included in AER

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

1.2 Treatment Type

The agglomeration is served by a wastewater treatment plant Dunmore East with a Plant Capacity PE of 8991. The treatment process includes the following:

1.2.1 Dunmore East

Treatment type	Yes / No	Details
Preliminary Treatment	Yes	Inlet Screens
Primary Treatment	No	
Secondary Treatment	Yes	SBR
Nutrient Removal	No	
Tertiary Treatment	No	

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 2.2 Discharges from the agglomeration.

1.3 ELV Overview

1.3.1 Dunmore East

Compliance Status	
Were all parameters compliant for Dunmore East treatment plant	Yes
Where noncompliant see table 2.2.1 for details of parameters	

1.4 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	t Sludge type		Quantity Unit		Destination	
Dunmore East	Liquid Sludge	1290	Volume (m3)	2.58	Dungarvan WWTP	

Annual Statement of Measures

No significant changes or Capital Works were undertaken in 2018. There are no plans for additional works in the coming years.

2 MONITORING REPORTS SUMMARY

2.1 Summary report on monthly influent monitoring

A summary of influent monitoring for the treatment plant is presented in below. This monitoring is primarily undertaken in order to determine the overall efficiency of the plant in removing pollutants from the raw wastewater.

2.1.1 Influent Monitoring Summary - Dunmore East

Parameters	Number of Samples	Annual Max	Annual Mean
Total Phosphorus (as P) mg/l	12	6.33	2.65
BOD, 5 days with Inhibition (Carbonaceous BOD) mg/I	12	153	76.75
Suspended Solids mg/l	12	256	130.3
Total Nitrogen mg/l	1	0	0
COD-Cr mg/l	12	393	237.96
Hydraulic Capacity	0	9590	1505

If other inputs in the form of sludge / leachate are added to the WWTP then these are included in Section 3.5 if applicable

Significance of Results:

The annual mean hydraulic loading is less than the peak Treatment Plant Capacity as detailed further in Section 3.2. The annual maximum hydraulic loading is greater than the peak Treatment Plant Capacity as detailed further in Section 3.2. The design of the wastewater tretament plant allows for peak values and therefore the peak loads have not impacted on compliance with Emission Limit Values.

2.2 Discharges from the agglomeration

2.2.1 Effluent Monitoring Summary - Dunmore East

Parameter	WWDL ELV (Schedule A)	ELV with Condition 2 Interpretation included Note 1	Interim % reduction from influent concentration	Number of sample results	Number of exceedences	Number of with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
1,2,4-Trichlorobenzene µg/l	0	0	0	1	0	0	5	Pass
Benzene μg/l	0	0	0	1	0	0	0.05	Pass
Ammonia-Total (as N) mg/l	15	18	0	12	0	0	0.3	Pass
Arsenic - unfiltered µg/l	0	0	0	2	0	0	0.15	Pass
alpha BHC / Alpha-HCH µg/l	0	0	0	1	0	0	1.5	Pass
Diuron µg/l	0	0	0	1	0	0	0.05	Pass
Dieldrin µg/l	0	0	0	1	0	0	2	Pass
COD-Cr mg/l	125	250	0	12	0	0	16.64	Pass
Chrysene µg/l	0	0	0	1	0	0	0.01	Pass
Ethylbenzene µg/l	0	0	0	1	0	0	0.25	Pass
Fluoride mg/l	0	0	0	1	0	0	0	Pass
Boron - unfiltered µg/I	0	0	0	1	0	0	0	Pass
Molybdenum - filtered µg/l	0	0	0	1	0	0	1.5	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 exceedences	Number of with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
Selenium - unfiltered µg/l	0	0	0	2	0	0	0.45	Pass
Pyrene μg/l	0	0	0	1	0	0	0.01	Pass
Fats, Oils & Greases mg/l	0	0	0	1	0	0	0	Pass
Total Pesticides µg/l	0	0	0	1	0	0	0	Pass
Enterococci (Intestinal) MPN/100ml	0	0	0	1	0	0	0	Pass
Vanadium - filtered µg/l	0	0	0	1	0	0	8	Pass
Nitrite (as N) mg/l	0	0	0	1	0	0	0	Pass
1,2,3-Trichlorobenzene µg/l	0	0	0	1	0	0	5	Pass
Benzo(a)anthracene µg/l	0	0	0	1	0	0	0.01	Pass
Atrazine µg/l	0	0	0	1	0	0	0.01	Pass
Antimony - unfiltered µg/l	0	0	0	1	0	0	0.8	Pass
beta-BHC /BETA-HCH µg/l	0	0	0	1	0	0	1.5	Pass
Chromium - unfiltered µg/l	0	0	0	2	0	0	0.24	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 exceedences	Number of with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
Dibenzo(a,h)anthracene µg/l	0	0	0	1	0	0	0.01	Pass
Acenaphthene µg/I	0	0	0	1	0	0	0.01	Pass
E. Coli no./100mls	0	0	0	1	0	0	0	Pass
Cyanide µg/l	0	0	0	2	0	0	0.15	Pass
МСРА µg/I	0	0	0	1	0	0	0.03	Pass
Organo-Tin compounds μg/l	0	0	0	1	0	0	0	Pass
Simazine µg/l	0	0	0	1	0	0	0.01	Pass
Hexachlorobutadiene µg/l	0	0	0	1	0	0	0.25	Pass
Suspended Solids mg/l	35	87.5	0	12	0	0	6.19	Pass
Toluene µg/l	0	0	0	1	0	0	0.25	Pass
Nickel - unfiltered mg/l	0	0	0	1	0	0	0	Pass
Isoproturon µg/I	0	0	0	1	0	0	0.03	Pass
ortho-Xylene µg/l	0	0	0	1	0	0	0.25	Pass
Total Nitrogen mg/l	0	0	0	11	0	0	5.52	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 exceedences	Number of with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
Total Oxidised Nitrogen (as N) mg/l	35	42	0	12	0	0	4.75	Pass
Naphthalene µg/l	0	0	0	1	0	0	0.01	Pass
Phenols (Total) µg/l	0	0	0	1	0	0	0	Pass
Trichloroethene (all isomers) μg/l	0	0	0	1	0	0	0.05	Pass
Benzo(a)pyrene µg/l	0	0	0	1	0	0	0.01	Pass
Benzo(b)fluoranthene μg/l	0	0	0	1	0	0	0.01	Pass
1,2,4-Trimethylbenzene μg/l	0	0	0	1	0	0	5	Pass
Benzo(k)fluoranthene μg/l	0	0	0	1	0	0	0.01	Pass
Acenaphthylene µg/l	0	0	0	1	0	0	0.01	Pass
Dichlobenil µg/l	0	0	0	1	0	0	1	Pass
Barium - unfiltered µg/l	0	0	0	2	0	0	5.95	Pass
Carbon Tetrachloride µg/l	0	0	0	1	0	0	0.25	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 exceedences	Number of with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
Chloride mg/l	0	0	0	2	0	0	41.64	Pass
Indeno(1,2,3-c,d)pyrene µg/l	0	0	0	1	0	0	0.01	Pass
Chloromethane µg/l	0	0	0	1	0	0	2.5	Pass
Glyphosate µg/l	0	0	0	1	0	0	0.8	Pass
Lead - unfiltered µg/l	0	0	0	2	0	0	0.45	Pass
Fluorene µg/l	0	0	0	1	0	0	0.01	Pass
Phenanthrene µg/l	0	0	0	1	0	0	0.01	Pass
Nitrate (as N) mg/l	0	0	0	1	0	0	0	Pass
2,6-Dichlorobenzamidec µg/l	0	0	0	1	0	0	0.05	Pass
Tin - filtered µg/l	0	0	0	1	0	0	1.5	Pass
2,4 D μg/l	0	0	0	1	0	0	0.03	Pass
Total Phosphorus (as P) mg/l	0	0	0	12	0	0	1.51	Pass
OrganoChlorine Pesticides / Compounds µg/l	0	0	0	1	0	0	0	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 exceedences	Number of with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
Total Hardness (as CaCO3) mg/l	0	0	0	1	0	0	142.6	Pass
Tetrachloroethene µg/l	0	0	0	1	0	0	0.05	Pass
Anthracene µg/l	0	0	0	1	0	0	0.01	Pass
BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l	25	50	0	12	0	0	1.64	Pass
Benzo(g,h,i)perylene µg/l	0	0	0	1	0	0	0.01	Pass
Cadmium - unfiltered µg/l	0	0	0	2	0	0	0	Pass
Conductivity 20 C µS/cm	0	0	0	2	0	0	245.65	Pass
Copper - unfiltered mg/l	0	0	0	2	0	0	0	Pass
Boron - unfiltered mg/l	0	0	0	1	0	0	0.25	Pass
Chloroform µg/l	0	0	0	1	0	0	0.5	Pass
Faecal coliforms no./100mls	0	0	0	2	0	0	15000	Pass
lsodrin μg/l	0	0	0	1	0	0	2	Pass
Magnesium - filtered mg/l	0	0	0	1	0	0	13.4	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 exceedences	Number of with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
Linuron µg/l	0	0	0	1	0	0	0.03	Pass
Cobalt - filtered µg/l	0	0	0	1	0	0	1	Pass
Fluoride µg/l	0	0	0	1	0	0	0.54	Pass
Calcium - filtered mg/l	0	0	0	1	0	0	34.9	Pass
Fluoranthene µg/l	0	0	0	1	0	0	0.01	Pass
Hexachlorobenzene µg/l	0	0	0	1	0	0	1	Pass
meta + para-Xylene µg/l	0	0	0	1	0	0	0.25	Pass
ortho-Phosphate (as P) - unspecified mg/l	0	0	0	12	0	0	1.05	Pass
Mercury - unfiltered µg/l	0	0	0	2	0	0	0.01	Pass
Nickel - unfiltered µg/l	0	0	0	1	0	0	1.6	Pass
pH pH units	0	0	0	13	0	0	7.46	Pass
gamma-BHC / HCH (Lindane) μg/l	0	0	0	1	0	0	1.35	Pass
Nitrate (as NO3) mg/l	0	0	0	1	0	0	0	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 exceedences	Number of with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
Polyaromatic Hydrocarbons (PAH) - Sum µg/l	0	0	0	1	0	0	0.01	Pass
Zinc - unfiltered µg/l	0	0	0	2	0	0	20.49	Pass
Mecoprop µg/l	0	0	0	1	0	0	0.03	Pass

Notes:

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

2 - For parameters where a mean ELV applies

Cause of Exceedance(s):

Not Applicable

Significance of Results:

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

2.3 Ambient monitoring summary

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.

2.3.1 Ambient Monitoring Report Summary - Dunmore East

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
Upstream	268923, 99458	TPEFF3100D0170SW001	Yes	No	No	No	Good

2.3.2 Ambient Monitoring Parameter Summary - Dunmore East

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 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 do not have an observable impact on the water quality.

The discharge from the wastewater treatment plant do not have an observable negative impact on the Water Framework Directive status.

3 OPERATIONAL REPORTS SUMMARY

3.1 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:

3.1.1 Treatment Efficiency Report Summary - Dunmore East

Parameter	Influent mass loading (kg/year)	Effluent mass emission (kg/year)	Efficiency (% reduction of influent load)	Comment
COD	147856.42	8861.2	94.01	
cBOD	47687.25	872.53	98.17	
SS	80962.08	3299.3	95.92	
ТР	1646.77	802.46	51.27	
TN		2553.67		

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

3.2 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.



Dunmore East	
DWF to the Treatment Plant (m3/day)	1947
Current Hydraulic Loading - annual max (m3/day)	9590
Average Hydraulic loading to the Treatment Plant (m3/day)	1505
Organic Capacity (PE) - As Constructed	8991
Organic Capacity (PE) - Collected Load (peak week)	3395
Organic Capacity (PE) - Remaining	5596
Will the capacity be exceeded in the next three years? (Yes/No)	No

3.3 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				
There is no Complaint data included in the AER.							

3.4 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.

3.4.1 Summary of Incidents

Incident Type	Cause	No. of incident occurrences	Recurring (Y/N)	Closed (Y/N)
Uncontrolled release	SWO Exceptional rainfall	1	No	Yes
Uncontrolled release	SWO Exceptional rainfall	1	Yes	Yes

3.4.2 Summary of Overall Incidents

Question	Answer			
Number of Incidents in 2018	2			
Number of Incidents reported to the EPA via EDEN in 2018	2			
Explanation of any discrepancies between the two numbers above				

3.5 Sludge / Other inputs to the 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)? ³	Is there a leachate/sludge acceptance procedure for the WWTP?	Is there a dedicated leachate/sludge acceptance facility for the WWTP? ² (Y/N)	
There is no Sludge and Other Input data for the Treatment Plant included in the AER.								

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:

No Appendix Included

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
SW008	268923, 99458	Yes	Unknown	Meeting	91	68369	Monitored
SW4	269162, 99892	Yes	Unknown	Meeting			Not Monitored
SW7	268557, 100377	Yes	Unknown	Meeting			Not Monitored

4.1.2 Inspection Summary Report

SWO Summary	
How much sewage was discharged via SWOs in the agglomeration in the year (m3)?	
Is each SWO identified as non meeting DoEHLG Guidance included in the Programme of Improvements?	Yes
The SWO Assessment included the requirements of relevant of WWDL schedules?	Yes

SWO Summary

Have the EPA been advised of any additional SWOs / charges to Schedule C3 and A4 under Condition 1.7?

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)	Licence Schedule	Licence Completion Date	Date Expired? (N/NA/Y)	Status of Works	Timeframe for Completing the Work	Comments
SW4 (Harbour PS) - Upgrade as required to ensure Storm Water Overflows comply with DoE criteria	С	30/07/2013	Yes	Works Completed		
SW5 (Strand PS) - Upgrade as required to ensure Storm Water Overflows comply with DoE criteria	С	14/05/2013	Yes	Works Completed		
SW7 (Ard na Coille) - Upgrade as required to ensure Storm Water Overflows comply with DoE criteria	С	30/07/2013	Yes	Works Completed		
Discharges from SW004 to cease	С	14/05/2013	Yes	Works Completed		Schedule change from A to A.3. Listed under schedule A.3 under TA A
Dunmore East waste water collection system	С	30/07/2013	Yes	Works Completed		

No

Specified Improvement Programmes (under Schedule A and C of WWDL)	Licence Schedule	Licence Completion Date	Date Expired? (N/NA/Y)	Status of Works	Timeframe for Completing the Work	Comments
Dunmore East waste water treatment plant (WWTP), ancillary works and treated effluent outfall	С	31/12/2013	Yes	Works Completed		
Eliminate secondary discharges to the Dunmore East Streams	С	29/04/2012	Yes	Works Completed		
Primary discharge SW000 to cease	С	31/12/2013	Yes	Works Completed		Schedule change from A to A.3. Listed under schedule A.3 under TA A
Storm water overflow SW005 to cease	С	30/07/2013	Yes	Works Completed		Schedule change from A to A.3. Listed under schedule A.3 under TA A
SW1 Future (WWTP storm tank) - Upgrade as required to ensure Storm Water Overflows comply with DoE criteria	С	30/07/2013	Yes	Works Completed		

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 (e.g. Appendix X).						
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?						
List reason e.g. changes to monitoring requirements						
Have these processes commenced?						
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: 29/03/2019

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

Acting Head of Environmental Regulation.

7 APPENDIX

In the appendix include all the detailed or site specific reports that are relevant to the AER. Reports omitted from previous AERs should also be appended here.

Appendix

Appendix 7.1 - Ambient monitoring summary

Appendix 7.2 - Ambient Monitoring Summary

The WWDL [Schedule B4] requires Shore and Coastal Water Monitoring.

Shore Monitoring:

4no. samples are required during the main part of the Bathing Season [mid May – end August] at Dunmore Strand. This monitoring is carried out on behalf of Waterford City & County Council by the Health Services Executive (HSE) as part of our Bathing Water Monitoring.

Dunmore East retained Blue Flag status in 2018 for The Main Strand and Counsellors Strand.

Bathing water quality is in compliance with National and European requirements.



Counsellor's Strand 2018 - <u>https://www.beaches.ie/find-a-beach/#/beach/IESEBWC100_0000_0100</u>



Historical Results

The water quality of each sample is assessed as either 'Excellent', 'Good', 'Sufficient' or 'Poor'.

Sample Date	E. coli	Intestinal Enterococci	Water Sample Quality A
03/09/2018	<10	1	Excellent
27/08/2018	10	2	Excellent
13/08/2018	<10	17	Excellent
30/07/2018	10	7	Excellent
16/07/2018	53	4	Excellent
			Download

Dunmore East Strand 2018 - <u>https://www.beaches.ie/find-a-beach/#/beach/IESEBWC100_0000_0200</u>

Coastal Water Monitoring:

There are four specified ambient coastal monitoring point are at;

- aSW1u (E268926, N099516),
- aSW1d (E269208, N099914),
- SR 620 (E270776, N100264) and
- SR650 (E269663, N098392).

The locations of these four sampling points are as follows:

Table 7.2.1 Ambient Monitoring Location: H&S Issues								
Name	Easting	Northing	Comment					
SR620	270776	100264	In open sea, circa 1.5km offshore, requires boat to sample. EPA sampling to be used.					
SR650	269663	098392	In open sea, circa 1.5km offshore, requires boat to sample. EPA sampling to be used.					
aSW1u	268926	099516	Discontinued following commissioning of WWTP.					
aSW1d	269208	099914	Discontinued following commissioning of WWTP.					

EDEN Codo	Station	Survey	Depth	Sample	Salinity S	۶U	DO S %	B.O.D.	TON mg/l	NH3 mg/l	DIN mg/l	Lab
EDEN_COde	No 🛃	Date 🚽	Bed 💌	Depth 🚬	<mark>‰</mark> 🗾	рп	Sat 💌	mg/l O 💌	N 💌	N 🝸	N 💌	
CW31002096SR7003	SR620	17/05/2017	10.4		33.82	8.1	101.6		0.005	0.012	0.017	EPA Dublin
CW31002096SR7003	SR620	17/05/2017	10.4	0	30.35	8.2	105.4		0.093	0.015	0.108	EPA Dublin
CW31002096SR7003	SR620	12/07/2017	9	8.6	34.15	8.1	108.8	0.5	0.005	0.013	0.018	EPA Dublin
CW31002096SR7003	SR620	12/07/2017	9	0	33.39	8.1	112.9	0.5	0.023	0.014	0.037	EPA Dublin
CW31002096SR7003	SR620	31/08/2017	11.5	0	29.5	8.1	101.5		0.31	0.049	0.359	EPA Dublin
CW31002096SR7003	SR620	31/08/2017	11.5	10.56	34.9	8.1	95.7		0.019	0.043	0.062	EPA Dublin
CW31002096SR7003	SR620	14/11/2017	10.5	0	28.59	8	97.2		0.65	0.018	0.668	EPA Dublin
CW31002096SR7003	SR620	14/11/2017	10.5	10.3	33.27	8	95.1		0.18	0.018	0.198	EPA Dublin

SR620 2017 Data [Note 2018 is not yet available]

SR650 2017 Data [Note 2018 is not yet available]

EDEN_Code	Station	Survey	Depth	Sample	Salinity S	лЦ	DO S %	B.O.D.	TON mg/l	NH3 mg/l	DIN mg/I	Lab
	No 🛃	Date 🚽	Bed 🚬	Depth 🚬	<u>‰</u>	рп	Sat 🗾	mg/l O 🚬	N	N 💌	N 🗹	
CW31002096SR7006	SR650	17/05/2017	16.2	0	32.36	8.1	103.6	0.5	0.023	0.015	0.038	EPA Dublin
CW31002096SR7006	SR650	17/05/2017	16.2		33.91	8.1	101.7	0.5	0.005	0.011	0.016	EPA Dublin
CW31002096SR7006	SR650	12/07/2017	14.5	0	32.53	8.1	114.1	0.5	0.054	0.014	0.068	EPA Dublin
CW31002096SR7006	SR650	12/07/2017	14.5	14	34.26	8.1	109	0.5	0.005	0.014	0.019	EPA Dublin
CW31002096SR7006	SR650	31/08/2017	18.6	0	29.9	8.1	102.3	1.7	0.29	0.048	0.338	EPA Dublin
CW31002096SR7006	SR650	31/08/2017	18.6	17.34	34.9	8.1	95.6	0.5	0.016	0.043	0.059	EPA Dublin
CW31002096SR7006	SR650	14/11/2017	18	0	32.99	8	96.9	0.5	0.2	0.011	0.211	EPA Dublin
CW31002096SR7006	SR650	14/11/2017	18	13.5	33.79	8	95.5	0.5	0.14	0.01	0.15	EPA Dublin