Annual Environmental Report

2019



Dumus

D0545-01

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1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2019 AER

This Annual Environmental Report has been prepared for D0545-01, Durrus, 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.

1.2 TREATMENT SUMMARY

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

• DURRUS WWTP with a Plant Capacity PE of 500, 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
TPEFF0500D0545SW001	DURRUS WWTP	Treated	Non-Compliant	BOD, 5 days with Inhibition (Carbonaceous BOD) mg/I Total Suspend Solids (mg/l)

1.4 LICENCE SPECIFIC REPORTING INCLUDED IN AER

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

2 TREATMENT PLANT PERFORMANCE AND IMPACT SUMMARY

2.1 DURRUS WWTP - TREATED DISCHARGE

2.1.1 INFLUENT MONITORING SUMMARY - DURRUS 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	6	338	136
COD-Cr mg/l	6	764	303.8
Suspended Solids mg/l	6	321	121.2
Orthophosphate mg/l	6	7.48	2.82
Hydraulic capacity	N/A	373	176

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'.

2.1.2 EFFLUENT MONITORING SUMMARY - TPEFF0500D0545SW001

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)
BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l	25	50	N/A	6	1	1	15.3	Fail
Suspended Solids mg/l	35	87.5	N/A	6	1	1	22.75	Fail
COD-Cr mg/l	125	250	N/A	6	0	0	43	Pass
ortho- Phosphate (as P) - unspecified mg/l	9	10.8	N/A	6	0	0	2.015	Pass
рН	6-9	6-9	N/A	6	0	0	7.43	Pass

Notes:

Cause of Exceedance(s):

Biological sludge issue

^{1 –} This represents the Emission Limit Values after the Interpretation provided for under Condition 2 of the licence is applied

Significance of Results:

The WWTP is non-compliant with the ELV's 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 TPEFF0500D0545SW001

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 Status
Upstream	94762, 42211	RS21F020500	No	No	No	No	Good
Downstream	93445, 41643	CW05003188DM1001	No	No	No	No	Unassigned

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. 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 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 - DURRUS WWTP

2.1.4.1 Treatment Efficiency Report - DURRUS 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)
BOD	3935	935	76
COD	8457	2171	74
ss	3471	1348	61
Ortho-P	73	58	22

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

2.1.4.2 Treatment Capacity Report Summary - DURRUS 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.

DURRUS WWTP			
Peak Hydraulic Capacity (m³/day) - As Constructed			
DWF to the Treatment Plant (m³/day)	112.5		
Current Hydraulic Loading - annual max (m³/day)	373		
Average Hydraulic loading to the Treatment Plant (m³/day)	176		

DURRUS WWTP	
Organic Capacity (PE) - As Constructed	500
Organic Capacity (PE) - Collected Load (peak week)Note1	456
Organic Capacity (PE) - Remaining	44
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 - DURRUS 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)		
There is	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 is included below.

Number of Complaints	Nature of Complaint	Number Open Complaints	Number Closed Complaints			
There were no relevant environmental complaints in 2019.						

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 in ELV	WWTP Biological sludge issue	1	No	Υ

3.2.2 SUMMARY OF OVERALL INCIDENTS

Question	Answer
Number of Incidents in 2019	1
Number of Incidents reported to the EPA via EDEN in 2019	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	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 2019 (No. of events)	Total volume discharged in 2019 (m3)	Monitoring Status
SW2	94437, 41831	Yes	Low	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?	Unknown
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 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
D0545-SIP:01	Improvement works to ensure compliance with Condition 1.7 of this licence	С	31/12/2021	No	Work ongoing on-site		New licence in 2019

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 / or any Operational Improvements	Improvement Source	Expected Completion Date	Comments
There are no Improven	nents 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 Speci	fic 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	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	No
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	No

I certify that the information given in this Annual Environmental Report is truthful, accurate and complete:

Signed: Date: 26/06/2020

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

WaterbodyName WaterbodyCode	MonitoringStation	: MonitoringStati Sar	mpleDate	SampleMe ^a	Parameter	ParameterU	Parameter Resu	ult L	_imitOfDet Rep	oortResi Report7	Text ReportRest ReportLimit
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	13/02/2019 10:45	Grab	Ammonia-	mg/l	milligrams	0.018	0	0.018	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	13/02/2019 10:45	Grab	ortho-Phos	mg/l	milligrams	800.0	0	0.008	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	13/02/2019 10:45	Grab	рН	pH units	pH Units	7.5	2	7.5	2
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	13/02/2019 10:45	Grab	Suspended	mg/l	milligrams per l	itre	2.5	1.25 < 2.5	2.5
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	13/02/2019 10:45	Grab	BOD - 5 dag	mg/l	milligrams per l	itre	1	0.5 < 1.0	1
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	13/02/2019 10:45	Grab	Dissolved (% Saturation	Percentage	100.7	0	100.7	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	13/02/2019 10:45	Grab	Temperatu	°C	Degrees ce	9.3	0	9.3	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	12/06/2019 10:05	Grab	Ammonia-	mg/l	milligrams	0.012	0	0.012	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	12/06/2019 10:05	Grab	Dissolved (% Saturation	Percentage	103.9	0	103.9	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	12/06/2019 10:05	Grab	Faecal colif	no./100mls	Number p€	687	0	687	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	12/06/2019 10:05	Grab	ortho-Phos	mg/l	milligrams	0.007	0	0.007	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	12/06/2019 10:05	Grab	BOD - 5 day	mg/l	milligrams	3.4	1	3.4	1
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	12/06/2019 10:05	Grab	E. Coli	no./100mls	Number p€	687	0	687	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	12/06/2019 10:05	Grab	Enterococc	no./100mls	Number p€	1106	0	1106	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	12/06/2019 10:05	Grab	Temperatu	°C	Degrees ce	13.4	0	13.4	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	12/06/2019 10:05	Grab	рН	pH units	pH Units	7.6	2	7.6	2
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	12/06/2019 10:05	Grab	Suspended	mg/l	milligrams	6	2.5	6	2.5
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	07/08/2019 12:00	Grab	Dissolved (% Saturation	Percentage	98.7	0	98.7	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	07/08/2019 12:00	Grab	рН	pH units	pH Units	7.6	2	7.6	2
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	07/08/2019 12:00	Grab	BOD - 5 dag	mg/l	milligrams per l	itre	1	0.5 < 1.0	1
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	07/08/2019 12:00	Grab	ortho-Phos	mg/l	milligrams	0.008	0	0.008	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	07/08/2019 12:00	Grab	Ammonia-	mg/l	milligrams	0.013	0	0.013	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	07/08/2019 12:00	Grab	E. Coli	no./100mls	Number p€	44	0	44	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	07/08/2019 12:00	Grab	Enterococc	no./100mls	Number p€	1	0	1	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	07/08/2019 12:00	Grab	Faecal colif	no./100mls	Number p€	46	0	46	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	07/08/2019 12:00	Grab	Temperatu	°C	Degrees ce	16	0	16	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	07/08/2019 12:00	Grab	Suspended	mg/l	milligrams	10	2.5	10	2.5
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	09/10/2019 12:20	Grab	Temperatu	°C	Degrees ce	13.3	0	13.3	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	09/10/2019 12:20	Grab	Ammonia-	mg/l	milligrams	0.013	0	0.013	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	09/10/2019 12:20	Grab	BOD - 5 day	mg/l	milligrams	1.6	1	1.6	1
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	09/10/2019 12:20	Grab	Suspended	mg/l	milligrams per l	itre	2.5	1.25 < 2.5	2.5
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	09/10/2019 12:20	Grab	Dissolved (% Saturatioi	Percentag∈	89	0	89	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	09/10/2019 12:20	Grab	ortho-Phos	mg/l	milligrams	0.011	0	0.011	
FOUR MILE WATER_CIE_SW_21F020500	RS21F020500	Br u/s Durrus	09/10/2019 12:20	Grab	рН	pH units	pH Units	7.5	2	7.5	2

Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 13/02/2019 11:25 Grab Dissolved Oxygen % Saturation 99.5 0 99.5 Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 13/02/2019 11:25 Grab Suspended Solids mg/l 11 2.5 11 Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 13/02/2019 11:25 Grab BOD - 5 days (Total) mg/l 1 0.5 <1.0 Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 13/02/2019 11:25 Grab ortho-Phosphate (as P) - unspec mg/l 0.01 0 0.01 Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 13/02/2019 11:25 Grab pH pH units 7.6 2 7.6	2.5 1 2
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 13/02/2019 11:25 Grab BOD - 5 days (Total) mg/l 1 0.5 < 1.0	1
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 13/02/2019 11:25 Grab ortho-Phosphate (as P) - unspec mg/l 0.01 0 0.01	1 2
	2
Dunmanus Ray IF SW 160 0000 CW05003188DM1001 13/02/2019 11:25 Grab nH nH nH nH nH nH nH n	2
Daninanas Day 12_3vv_100_0000 0vv00000100Divi1001 10/02/2017 11.20 Glab Pit Pit anics 1.0 2 7.0	
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 13/02/2019 11:25 Grab Temperature °C 9.4 0 9.4	
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 12/06/2019 10:30 Grab Enterococci (Intestinal) no./100mls 121 0 121	
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 12/06/2019 10:30 Grab Faecal coliforms no./100mls 213 0 213	
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 12/06/2019 10:30 Grab Suspended Solids mg/l 14 2.5 14	2.5
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 12/06/2019 10:30 Grab BOD - 5 days (Total) mg/l 1.6 1 1.6	1
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 12/06/2019 10:30 Grab Dissolved Oxygen % Saturation 107.3 0 107.3	
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 12/06/2019 10:30 Grab E. Coli no./100mls 275 0 275	
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 12/06/2019 10:30 Grab pH pH units 8.2 2 8.2	2
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 12/06/2019 10:30 Grab Temperature °C 14.7 0 14.7	
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 12/06/2019 10:30 Grab ortho-Phosphate (as P) - unspec mg/I 0 0.005 < 0.01	0.01
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 07/08/2019 12:25 Grab pH pH units 7.7 2 7.7	2
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 07/08/2019 12:25 Grab Enterococci (Intestinal) no./100mls 109 0 109	
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 07/08/2019 12:25 Grab Faecal coliforms no./100mls 457 0 457	
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 07/08/2019 12:25 Grab BOD - 5 days (Total) mg/l 1 0.5 <1.0	1
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 07/08/2019 12:25 Grab Dissolved Oxygen % Saturation 97.4 0 97.4	
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 07/08/2019 12:25 Grab E. Coli no./100mls 327 0 327	
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 07/08/2019 12:25 Grab Suspended Solids mg/l 2.5 1.25 <2.5	2.5
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 07/08/2019 12:25 Grab ortho-Phosphate (as P) - unspec mg/I 0 0.005 < 0.01	0.01
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 07/08/2019 12:25 Grab Temperature °C 15.6 0 15.6	
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 09/10/2019 11:45 Grab ortho-Phosphate (as P) - unspec mg/I 0.015 0 0.015	
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 09/10/2019 11:45 Grab Ammonia-Total (as N) mg/l 0.031 0 0.031	
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 09/10/2019 11:45 Grab pH pH units 7.6 2 7.6	2
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 09/10/2019 11:45 Grab Dissolved Oxygen % Saturation 92 0 92	
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 09/10/2019 11:45 Grab BOD - 5 days (Total) mg/l 1.5 1 1.5	1
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 09/10/2019 11:45 Grab Temperature °C 13.4 0 13.4	
Dunmanus Bay IE_SW_160_0000 CW05003188DM1001 09/10/2019 11:45 Grab Suspended Solids mg/l 5 2.5 5	2.5