

Annual Environmental Report

2019



Malahide

D0021-01

Revision Number	Description of Change	Revised by	Approved By	Date of Approval
<u>1</u>	<u>Section 1.2 treatment Summary</u> <u>2.1.4.2 Treatment Capacity Report Summary</u> <u>Plant Capacity to 27,000PE</u>	<u>S. Casey</u>	<u>S. Casey</u>	<u>28/05/2020</u>

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1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2019 AER

This Annual Environmental Report has been prepared for D0021-01, Malahide, in Dublin 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 were no major capital or operational changes undertaken in 2019.

1.2 TREATMENT SUMMARY

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

- MALAHIDE WWTP with a Plant Capacity PE of 27000, 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
TPEFF0900D0021SW001	MALAHIDE WWTP	Treated	Compliant	N/A

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 MALAHIDE WWTP - TREATED DISCHARGE

2.1.1 INFLUENT MONITORING SUMMARY - MALAHIDE 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	16	9.88	5.47
BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l	16	324	194.99
COD-Cr mg/l	16	874	457.2
Suspended Solids mg/l	16	380	182.69
Total Nitrogen mg/l	16	75.9	40.42
Hydraulic Capacity	N/A	10391	5271

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 - TPEFF0900D0021SW001

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	N/A	22	N/A	N/A	25.72	Pass
Total Oxidised Nitrogen (as N) mg/l	35	42	N/A	22	N/A	N/A	10.32	Pass
Suspended Solids mg/l	35	87.5	N/A	22	1	N/A	11.42	Pass
BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l	25	50	N/A	22	N/A	N/A	3.27	Pass
pH pH units	6-9	6-9	N/A	21	N/A	N/A	7.74	Pass
Ammonia-Total (as N) mg/l	5	6	N/A	22	N/A	N/A	0.72	Pass
Conductivity 20 C μS/cm	N/A	N/A	N/A	22	N/A	N/A	1102.17	
Dissolved Inorganic Nitrogen (as N) mg/l	N/A	N/A	N/A	22	N/A	N/A	11.04	
Total Phosphorus (as P) mg/l	N/A	N/A	N/A	22	N/A	N/A	2.72	

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)
ortho-Phosphate (as P) - unspecified mg/l	N/A	N/A	N/A	22	N/A	N/A	2.41	
Nitrite (as N) mg/l	N/A	N/A	N/A	22	N/A	N/A	0.18	
Nitrate (as N) mg/l	N/A	N/A	N/A	22	N/A	N/A	10.17	
Total Nitrogen mg/l	N/A	N/A	N/A	22	N/A	N/A	11.76	

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):

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 TPEFF0900D0021SW001

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	Coastal Station Code	Bathing Water	Drinking Water	FWPM	Shellfish	WFD Status
BM210-Causeway Cascade	322582, 246924	CW09001007BM2001	Yes (d/s)	No	No	No	Moderate
BM220-Malahide Marina	322731, 246527	CW09001007BM2002	Yes (d/s)	No	No	No	Moderate
BM230 - Malahide Navigation Channel	323481, 246290	CW09001007BM2003	Yes (d/s)	No	No	No	Moderate

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 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 - MALAHIDE WWTP

2.1.4.1 Treatment Efficiency Report - MALAHIDE 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	78003	22872	71
SS	352566	25724	93
COD	882355	50034	94
cBOD	376310	6366	98
TP	10552	5291	50

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

2.1.4.2 Treatment Capacity Report Summary - MALAHIDE 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.

MALAHIDE WWTP	
Peak Hydraulic Capacity (m ³ /day) - As Constructed	15033
DWF to the Treatment Plant (m ³ /day)	5011
Current Hydraulic Loading - annual max (m ³ /day)	10391
Average Hydraulic loading to the Treatment Plant (m ³ /day)	5271
Organic Capacity (PE) - As Constructed	27000
Organic Capacity (PE) - Collected Load (peak week) ^{Note1}	21680
Organic Capacity (PE) - Remaining	5,320
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 - MALAHIDE 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 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
4	Blocked Sewer	0	4

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 of ELV *	Inadequate Operational Procedures / Training	1	No	Yes
Uncontrolled release	EO caused by pump failure	1	No	Yes
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 breakdown at WWTP	1	No	Yes
Uncontrolled release	SWO exceptional rainfall and overflow expected	1	No	Yes
Uncontrolled release	EO caused by power failure	1	No	Yes
Abatement Equipment offline	Plant or equipment breakdown at WWTP	1	No	Yes

* The ELV breach reported in 2019 (INCI015797) relates to a process sample and is not related to a compliance sample.

3.2.2 SUMMARY OF OVERALL INCIDENTS

Question	Answer
Number of Incidents in 2019	7
Number of Incidents reported to the EPA via EDEN in 2019	7
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
S8	321692.44, 243274.29	Yes	Low	Meeting	Unknown	Unknown	Not Monitored
SW35	322514.49, 246318.61	Yes	Low	Meeting	Unknown	Unknown	Not Monitored
TBC	321000.39, 245870.36	No	Low	Meeting	Unknown	Unknown	Not Monitored
TBC	321007.05, 245501.51	No	Low	Meeting	Unknown	Unknown	Not Monitored
TBC	321660.9, 246521.3	No	Low	Meeting	Unknown	Unknown	Not Monitored
TBC	321851.16, 243987.9	No	Low	Meeting	Unknown	Unknown	Not Monitored

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
TBC	321851.163, 244000.292	No	Low	Not Meeting	Unknown	Unknown	Not Monitored
TBC	322329.703, 246308.96	No	Low	Meeting	Unknown	Unknown	Not Monitored
TBC	322856.55, 244584.85	No	Unknown	Meeting	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?	Yes
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?	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/NAY)	Status of Works	Timeframe for Completing the Work	Comments
D0021-SIP:01	Implementation of the measure(s) identified in Condition 5.3(a)(v)	C	14/03/2011	Yes	Works Completed		
D0021-SIP:02	Network improvements under the Malahide Sewerage Scheme	C	31/07/2014	Yes	At Planning Stage		Drainage Area Plan (DAP) Investigation Study to be completed.
D0021-SIP:03	S2 - Upgrade of Stormwater Overflows to comply with the criteria outlined in the DoEHLG 'Procedures and Criteria in relation to Storm Water Overflows', 1995	C	31/07/2014	Yes	At Planning Stage		Drainage Area Plan (DAP) Investigation Study to be completed.

Specified Improvement Programmes (under Schedule A and C of WWDL)	Description	Licence Schedule	Licence Completion Date	Date Expired? (N/NAY)	Status of Works	Timeframe for Completing the Work	Comments
D0021-SIP:04	S3 - Upgrade of Stormwater Overflows to comply with the criteria outlined in the DoEHLG 'Procedures and Criteria in relation to Storm Water Overflows', 1995	C	31/07/2014	Yes	At Planning Stage		Drainage Area Plan (DAP) Investigation Study to be completed.
D0021-SIP:05	S35 - Upgrade of Stormwater Overflows to comply with the criteria outlined in the DoEHLG 'Procedures and Criteria in relation to Storm Water Overflows', 1995	C	31/07/2014	Yes	At Planning Stage		Drainage Area Plan (DAP) Investigation Study to be completed.
D0021-SIP:06	S8 - Upgrade of Stormwater Overflows to comply with the criteria outlined in the DoEHLG 'Procedures and Criteria in relation to Storm Water Overflows', 1995	C	31/07/2014	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 / or any Operational Improvements	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.

Licence Specific Report	Required by licence	Year included in AER	Included in this AER	Reference to relevant section of AER
Priority Substances Assessment	Yes	2014	No	

5.1 PRIORITY SUBSTANCES ASSESSMENT

The Priority Substances Assessment Report has been included in the AER 2014.

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	N/A

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

Date: 05/03/2020

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

Confidential Report

Client: Fingal County Council

Sampling Date: 21 May 2019



TMS Environment Ltd Phone: +353-1-4626710
 53 Broomhill Drive Fax: +353-1-4626714
 Tallaght Web: www.tmsenv.ie
 Dublin 24



Sample	Station	Visual Inspection	Ammonia mg/L N	Biochemical Oxygen Demand mg/l	Dissolved Oxygen mg/l	Dissolved Oxygen % Saturation % Saturation	pH pH units	Temperature - Surface Degrees C	Total Oxidised Nitrogen mg/l
26260-1	Balbriggan/Skerries (DB800)	Clear, No smell, No solids	< 0.02	2.48	12.01	112.2	8.25	12.4	<0.7
26260-2	Balbriggan/Skerries (DB780)	Clear, No smell, No solids	< 0.02	3.32	12.01	112.4	8.3	12.4	<0.7
26260-3	Portrane/Donabate (DB750)	Clear, No Smell, No solids	< 0.02	2.94	12.26	112.8	8.2	11.5	<0.7
26260-4	Rush (DB770)	Clear, No smell, No solids	< 0.02	2.4	12.25	112.8	8.3	11.7	NA
26260-5	Malahide (BM210)	Clear, No smell, No solids	< 0.02	<2	11.87	112.6	8.25	12.9	NA
26260-6	Malahide (BM220)	Clear, No smell, No solids	< 0.02	2.42	12.2	114.9	8.29	12.7	NA
26260-7	Malahide (BM230)	Clear, No smell, No solids	< 0.02	2.52	12.49	116.9	8.25	12.5	NA

NA = Not Applicable

Not Accredited / TMS**Accredited / TMS** Ammonia, BOD, orthophosphate, salinity, Dissolved Inorganic Nitrogen (DIN)**Not Accredited / Sub Contract** Total Nitrogen**Accredited / Sub Contract** Total Oxidised Nitrogen (TON), Total Phosphorous, Chlorophyll,**On Site Accredited** Dissolved Oxygen, temper:

Prepared by:

*Peter Smith*Peter Smith
Laboratory Analyst

Approved by:

*Imelda Shanahan*Dr Imelda Shanahan
Technical Manager

Confidential Report

Client: Fingal County Council

Sampling Date: 21 May 2019



TMS Environment Ltd Phone: +353-1-4626710
53 Broomhill Drive Fax: +353-1-4626714
Tallaght Web: www.tmsenv.ie
Dublin 24



Station	Total Nitrogen mg/l	Chlorophyll_a mg/m3	Orthophosphate mg/L P	Salinity S	Dissolved Inorganic Nitrogen DIN mg/L
Balbriggan/Skerries (DB800)	<0.2	<4.00	<0.02	34.0	<0.2
Balbriggan/Skerries (DB780)	<0.2	<4.00	<0.02	34.2	<0.2
Portrane/Donabate (DB750)	<0.2	<4.00	<0.2	34.8	<0.2
Rush (DB770)	<0.2	<4.00	NA	34.8	<0.2
Malahide (BM210)	<0.2	<4.00	NA	33.8	<0.2
Malahide (BM220)	<0.2	<4.00	NA	33.3	<0.2
Malahide (BM230)	<0.2	<4.00	NA	34.8	<0.2

NA = Not Applicable

Not Accredited / TMS

Accredited / TMS Ammonia, BOD, orthophosphate, salinity, Dissolved Inorganic Nitrogen (DIN)

Not Accredited / Sub Contract Total Nitrogen

Accredited / Sub Contract Total Oxidised Nitrogen (TON), Total Phosphorous, Chlorophyll,

On Site Accredited Dissolved Oxygen, temperature, pH, cond

Prepared by:

Peter Smith

Peter Smith
Laboratory Analyst

Approved by:

Imelda Shanahan

Dr Imelda Shanahan
Technical Manager

Confidential Report

Client: Fingal County Council

Sampling Date: 16 September 2019



TMS Environment Ltd
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Tallaght
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Phone: +353-1-4626710
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Web: www.tmsenv.ie



Sample	Station	Visual Inspection	Ammonia mg/L N	Biochemical Oxygen Demand mg/l	Dissolved Oxygen mg/l	Dissolved Oxygen % Saturation % Saturation	pH pH units	Temperature - Surface Degrees C	Total Oxidised Nitrogen mg/l
26711-1	Balbriggan/Skerries (DB800)	Clear, No smell, No solids	< 0.02	2.4	10.23	101.5	8.05	14.5	< 0.7
26711-2	Balbriggan/Skerries (DB780)	Clear, No smell, No solids	< 0.02	< 2	10.26	101.8	8.13	14.4	< 0.7
26711-3	Portrane/Donabate (DB750)	Clear, No smell, No solids	< 0.02	< 2	10.10	100.5	8.00	14.4	< 0.7
26711-4	Rush (DB770)	Clear, No smell, No solids	< 0.02	< 2	10.11	100.9	8.07	14.4	NA
26711-5	Malahide (BM210)	Clear, No smell, No solids	< 0.02	< 2	10.00	100.2	8.18	15.0	NA
26711-6	Malahide (BM220)	Clear, No smell, No solids	< 0.02	< 2	10.12	101.0	8.10	14.9	NA
26711-7	Malahide (BM230)	Clear, No smell, No solids	< 0.02	< 2	10.12	101.2	8.17	15.0	NA

NA = Not Applicable

Not Accredited / TMS

Accredited / TMS Ammonia, BOD, orthophosphate, salinity, Dissolved Inorganic Nitrogen (DIN)

Not Accredited / Sub Contract Total Nitrogen

Accredited / Sub Contract Total Oxidised Nitrogen (TON), Total Phosphorous, Chlorophyll,

On Site Accredited Dissolved Oxygen, temperature, pH, conductivity

Prepared by:

Peter Smith

Peter Smith
Laboratory Analyst

Approved by:

Imelda Shanahan

Dr Imelda Shanahan
Technical Manager

Confidential Report

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Station	Total Nitrogen mg/l	Chlorophyll_a mg/m3	Orthophosphate mg/L P	Salinity S	Dissolved Inorganic Nitrogen DIN mg/L
Balbriggan/Skerries (DB800)	< 0.2	< 4.00	< 0.02	34.58	< 0.2
Balbriggan/Skerries (DB780)	< 0.2	< 4.00	< 0.02	34.58	< 0.2
Portrane/Donabate (DB750)	< 0.2	< 4.00	< 0.02	34.67	< 0.2
Rush (DB770)	< 0.2	< 4.00	NA	34.75	< 0.2
Malahide (BM210)	0.2	< 4.00	NA	33.50	< 0.2
Malahide (BM220)	< 0.2	< 4.00	NA	34.67	< 0.2
Malahide (BM230)	< 0.2	< 4.00	NA	34.75	< 0.2

NA = Not Applicable

Not Accredited / TMS

Accredited / TMS Ammonia, BOD, orthophosphate, salinity, Dissolved Inorganic Nitrogen (DIN)

Not Accredited / Sub Contract Total Nitrogen

Accredited / Sub Contract Total Oxidised Nitrogen (TON), Total Phosphorous, Chlorophyll,

On Site Accredited Dissolved Oxygen, temperature, pH, conductivity

Prepared by: *Peter Smith*
Peter Smith
Laboratory Analyst

Approved by: *Imelda Shanahan*
Dr Imelda Shanahan
Technical Manager

Shore Monitoring

Donabate, Balcarrick Beach

Date	E. coli MPN/100ml	Enterococci CFU/100ml	Water Quality Status
28/05/2019 08:15	<10	<1	Excellent
11/06/2019 07:20	<10	1	Excellent
17/06/2019 09:00	<10	8	Excellent
01/07/2019 11:40	10	4	Excellent
15/07/2019 09:52	<10	<1	Excellent
29/07/2019 08:50	<10	1	Excellent
12/08/2019 09:30	10	6	Excellent
26/08/2019 09:05	<10	<1	Excellent
09/09/2019 09:10	10	30	Excellent

In order to assess these results, the Bathing Water Quality Regulations, 2008 (S.I No 79 of 2008), were consulted. It was found that, Donabate, Balcarrick Beach, achieved “*Excellent*” results in all cases for the Bathing Water season 2019.

Donabate, Balcarrick Beach was classified as achieving Sufficient Water Quality in 2018 based on the assessment of bacteriological results for the period 2015 to 2018. During this period the Water Quality ratings were as follows:

2015 Excellent Water Quality
2016 Good Water Quality
2017 Sufficient Water Quality
2018 Excellent Water Quality

Malahide Beach

Date	E. coli MPN/100ml	Enterococci CFU/100ml	Water Quality Status
28/05/2019 07:45	<10	4	Excellent
11/06/2019 06:50	<10	<1	Excellent
17/06/2019 07:25	20	6	Excellent
01/07/2019 11:05	41	13	Excellent
15/07/2019 09:16	<10	<1	Excellent
29/07/2019 08:20	<10	12	Excellent
12/08/2019 08:59	160	23	Excellent
26/08/2019 08:21	31	1	Excellent
09/09/2019 08:35	85	24	Excellent

Although Malahide Beach is no longer classified as a bathing water, it is still monitored during the bathing season. All samples taken during 2019 achieved “*Excellent*” status.