# Annual Environmental Report





Shanganagh

D0038-02

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# **1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2022 AER**

This Annual Environmental Report has been prepared for D0038-02, Shanganagh, 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 capital works, significant changes or operational changes undertaken in 2022.

## **1.2 TREATMENT SUMMARY**

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

• Shanganagh WWTP with a Plant Capacity PE of 186000, 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
TPEFF1000D0038SW001	Shanganagh WWTP	Treated	Non-Compliant	BOD, 5 days with Inhibition (Carbonaceous) mg/l Dissolved Inorganic Nitrogen (as N) mg/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 SHANGANAGH WWTP - TREATED DISCHARGE**

### 2.1.1 INFLUENT MONITORING SUMMARY - SHANGANAGH 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
Ammonia-Total (as N) mg/l	36	58	32
Total Nitrogen mg/l	36	75	44
COD-Cr mg/l	36	944	416
Total Phosphorus (as P) mg/l	36	13	7.58
ortho-Phosphate (as P) - unspecified mg/l	36	12	4.85
pH pH units	36	7.80	7.46
BOD, 5 days with Inhibition (Carbonaceous) mg/l	34	326	176
Suspended Solids mg/l	36	453	246
Hydraulic Capacity	N/A	93510	33260

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 - TPEFF1000D0038SW001

Parameter	WWDL ELV (Schedule A)	ELV with Condition 2 Interpretation included <sup>Note 1</sup>	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	125	N/A	36	N/A	N/A	41	Pass
Dissolved Inorganic Nitrogen (as N) mg/l	45	54	N/A	36	10	1	31	Fail
Suspended Solids mg/l	35	35	N/A	36	N/A	N/A	8.60	Pass
BOD, 5 days with Inhibition (Carbonaceous) mg/I	25	25	N/A	35	1	1	6.35	Fail
pH pH units	6.00	9.00	N/A	36	N/A	N/A	7.57	Pass
Total Phosphorus (as P) mg/l	N/A	N/A	N/A	36	N/A	N/A	1.95	
Ammonia-Total (as N) mg/l	N/A	N/A	N/A	36	N/A	N/A	25	

Parameter	WWDL ELV (Schedule A)	ELV with Condition 2 Interpretation included <sup>Note 1</sup>	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)
Nitrate (as N) mg/l	N/A	N/A	N/A	36	N/A	N/A	5.87	
Total Nitrogen mg/l	N/A	N/A	N/A	36	N/A	N/A	34	
Fats, Oils & Greases mg/l	N/A	N/A	N/A	4	N/A	N/A	9.20	
Total Oxidised Nitrogen (as N) mg/l	N/A	N/A	N/A	36	N/A	N/A	6.20	
Conductivity @20°C μS/cm	N/A	N/A	N/A	36	N/A	N/A	925	
Nitrite (as N) mg/l	N/A	N/A	N/A	36	N/A	N/A	0.329	

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):

WWTP not designed for N Removal (INCI023995)

#### **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 TPEFF1000D0038SW001

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
Upstream	327527, 224160	CW34001016DB6017	Yes	No	No	No	High
Downstream	327730, 222408	CW34001016DB6001	Yes	No	No	No	High

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 for the following: Dissolved Inorganic Nitrogen (as N) mg/l, BOD, 5 days with Inhibition (Carbonaceous) mg/l.

The coastal/transitional 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 have an observable impact on the coastal/transitional water quality.

The discharge from the wastewater treatment plant does not have an observable impact on the bathing 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 - SHANGANAGH WWTP

#### 2.1.4.1 Treatment Efficiency Report - Shanganagh 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	2952938	105304	96
COD	4984536	507466	90
ТN	529970	415883	22
ТР	90872	23816	74
cBOD	2104994	79850	96

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

#### 2.1.4.2 Treatment Capacity Report Summary - Shanganagh 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.

Shanganagh WWTP			
Peak Hydraulic Capacity (m³/day) - As Constructed	108000		
DWF to the Treatment Plant (m <sup>3</sup> /day)			
Current Hydraulic Loading - annual max (m³/day)	93510		

Shanganagh WWTP	
Average Hydraulic loading to the Treatment Plant (m³/day)	33260
Organic Capacity (PE) - As Constructed	186000
Organic Capacity (PE) - Collected Load (peak week) <sup>Note1</sup>	134529
Organic Capacity (PE) - Remaining	51471
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 - SHANGANAGH 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 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
There were no relevant environme	ental complaints in 2022.		

## **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	No. of incident occurrences	Recurring (Y/N)	Closed (Y/N)
Breach of ELV	WWTP not designed for N removal	1	Yes	No
Spillage	Shock load to the WWTP	1	No	Yes
Uncontrolled release	Blocked Sewer	1	No	Yes

Incident Type	Cause	No. of incident occurrences	Recurring (Y/N)	Closed (Y/N)
Uncontrolled release	SWO exceptional rainfall and overflow expected	1	No	Yes
Uncontrolled release	SWO exceptional rainfall and overflow expected	1	No	Yes
Uncontrolled release	SWO exceptional rainfall and overflow expected	1	No	Yes
Uncontrolled release	Blocked Sewer	1	No	Yes
Uncontrolled release	Blocked Sewer	1	No	Yes
Uncontrolled release	Blocked Sewer	1	No	Yes
Uncontrolled release	SWO exceptional rainfall and overflow expected	1	No	Yes
Uncontrolled release	SWO exceptional rainfall and overflow expected	1	No	Yes
Uncontrolled release	SWO exceptional rainfall and overflow expected	1	No	Yes

## **3.2.2 SUMMARY OF OVERALL INCIDENTS**

Question	Answer
Number of Incidents in 2022	12
Number of Incidents reported to the EPA via EDEN in 2022	12
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 2022 (No. of events)	Total volume discharged in 2022 (m³)	Monitoring Status
твс	322644 226837	No	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
твс	321686 225600	No	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
твс	321686 225600	No	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
твс	321686 225600	No	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
твс	321686 225600	No	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
твс	321686 225600	No	Low Significance	Not Meeting Criteria	Unknown	Unknown	Not 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 2022 (No. of events)	Total volume discharged in 2022 (m³)	Monitoring Status
твс	322071 225515	No	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
твс	322399 225484	No	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
твс	323354 225881	No	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
твс	323613 225495	No	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
твс	325252 223481	No	Low Significance	Not Meeting Criteria	Unknown	Unknown	Not Monitored
твс	325328 223502	No	Low Significance	Not Meeting Criteria	Unknown	Unknown	Not Monitored
твс	321590 225567	No	Low Significance	Not Meeting Criteria	Unknown	Unknown	Not Monitored
твс	320524 227692	No	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
твс	326078 224651	No	Low Significance	Meeting Criteria	Unknown	Unknown	Not Monitored
твс	327548 223736	No	Low Significance	Meeting Criteria	41	330668	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 2022 (No. of events)	Total volume discharged in 2022 (m³)	Monitoring Status
твс	325056 220697	No	Low Significance	Meeting Criteria	Unknown	Unknown	Not 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 sewage was discharged via monitored SWOs in the agglomeration in the year (m <sup>3</sup> )?	330668
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 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
D0038-02 SIP:01	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW014	С	31/12/2025	No	Completed		DAP Assessment - SW014 compliant
D0038-02 SIP:02	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW015	С	31/12/2025	No	At Construction		DAP Assessment
D0038-02 SIP:03	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW016	С	11/08/2022	Yes	At Construction		DAP Assessment

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
D0038-02 SIP:04	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW017	С	11/08/2022	Yes	At Construction		DAP Assessment
D0038-02 SIP:05	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW022	С	11/08/2022	Yes	At Construction		DAP Assessment
D0038-02 SIP:06	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW023	С	31/12/2025	No	At Construction		DAP Assessment
D0038-02 SIP:07	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW024	С	31/12/2025	No	At Construction		DAP Assessment
D0038- 02 SIP:08	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW025	С	11/08/2022	Yes	At Construction		DAP Assessment

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
D0038- 02 SIP:09	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW026	С	11/08/2022	Yes	Completed		DAP Assessment - SW026 compliant
D0038-02 SIP:10	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW027	С	11/08/2022	Yes	Completed		DAP Assessment - SW027 compliant
D0038- 02 SIP:11	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW028	С	11/08/2022	Yes	At Construction		DAP Assessment
D0038-02 SIP:12	Upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF1000D0038SW003	С	31/12/2025	No	Completed		DAP Assessment - SW003 compliant
D0038-02 SIP:13	Upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW020	С	31/12/2025	No	At Construction		DAP Assessment
D0038-02 SIP:14	Upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW021	С	31/12/2025	No	At Construction		DAP Assessment

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	Improvement Description / or any Operational	Improvement	Expected Completion	Comments
Identifier	Improvements	Source	Date	
No additional improve	ments 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	Year included in AER	Included in this AER
There is no Licence Specific Report Re	quired 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	N/A

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

Date: 31/05/2023

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

Acting Head of Environmental Regulation.

# **7** APPENDIX

#### Appendix

Appendix 7.1 - Ambient Monitoring Summary

## Shanganagh 2022 Ambient Monitoring

Ambient Monitoring Point from WWDL (or as agreed with EPA)	Irish Grid Reference	EPA Feature Coding Tool code	Bathing Water	Drinking Water	FWPM	Shellfish	Current WFD Status
Upstream	327527, 224160	CW34001016DB6017	Yes	No	No	No	High
Downstream	327730, 222408	CW34001016DB6001	Yes	No	No	No	High

# Ambient Sampling Results 2022

Sampling Point	Sampled Date	Ammonia	B.O.D.	Colour (Visual)	DIN	Dissolved Oxygen	E. coli	Enterococci	Enterococci	Odour	рН	TON	Total Coliforms
		μg/l as N	mg/l		μg/l	% Sat.	MPN/100ml	CFU/100ml	CFU/100ml		рН	μg/l as N	MPN/100ml
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	12/01/2022 10:45	<10	<1	Normal	111	94	31		1	Normal	8	111	31
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	23/02/2022 09:10	34	<1	Normal	139	99	63		76	Normal	8	105	393
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	23/03/2022 09:20	24	<1	Normal	187	104	<20		3	Normal	8	163	62
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	20/04/2022 10:05	195	2	Normal	195	110	<10		1	Normal	8.1	<40	<10
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	25/05/2022 08:07	80	<1	Normal	80	101	10	<1		Normal	8.1	<40	52
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	22/06/2022 08:09	20	<1	Normal	20	99	<10		2	Normal	8	<40	10
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	20/07/2022 07:50	24	<1	Normal	24	101	<10	<1		Normal	8	<40	<10
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	24/08/2022 08:01	<10	<1	Normal	< 50	101	135		280	Normal	8	<40	148
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	28/09/2022 09:48	52	<1	Normal	52	101	10	<1		Normal	8	<40	10
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	26/10/2022 09:22	<10	<1	Normal	82	102	109		64	Normal	8	82	839
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	23/11/2022 12:00	<10	<1	Normal	117	99	10		9	Normal	8	117	98
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	14/12/2022 09:40	16	<1	Normal	16	100	10		8	Normal	7.9	<40	63
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	12/01/2022 11:05	42	<1	Normal	154	91	<10		1	Normal	8	112	10
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	23/02/2022 09:25	41	<1	Normal	171	99	20		13	Normal	8	130	131
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	23/03/2022 09:20	21	<1	Normal	145	103	<20		2	Normal	8	124	20
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	20/04/2022 10:20	237	2	Normal	237	109	<10	<1		Normal	8.1	<40	10
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	25/05/2022 07:56	49	<1	Normal	49	101	<10		2	Normal	8.1	<40	10
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	22/06/2022 08:01	222	>6	Normal	222	100	<10		1	Normal	8	<40	10
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	20/07/2022 07:40	15	<1	Normal	15	100	<10	<1		Normal	8	<40	10
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	24/08/2022 08:08	<10	<1	Normal	< 50	100	<10		4	Normal	8	<40	<10
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	28/09/2022 10:03	85	<1	Normal	85	100	10	<1		Normal	8	<40	10
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	26/10/2022 09:10	<10	<1	Normal	95	101	97		43	Normal	8	95	754
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	23/11/2022 11:40	11	<1	Normal	149	98	20		6	Normal	8	138	108
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	14/12/2022 10:10	14	<1	Normal	14	101	10		13	Normal	8	<40	31

#### Killiney Beach Bathing Water Monitoring Results 2022:

Date	E-Coli (cfu/100ml)	Intestinal Enterococci (cfu/100ml)	EPA Classification Standard		
04/01/2022	75	6	Excellent		
17/01/2022	10	21	Excellent		
31/01/2022	10	1	Excellent		
14/02/2022	10	8	Excellent		
28/02/2022	<10	19	Excellent		
14/03/2022	31	10	Excellent		
28/03/2022	<10	5	Excellent		
11/04/2022	<10	<1	Excellent		
25/04/2022	<10	<1	Excellent		
10/05/2022	10	2	Excellent		
21/09/2022	<10	5	Excellent		
26/09/2022	<10	50	Excellent		
10/10/2022	<10	7	Excellent		
24/10/2022	63	15	Excellent		
08/11/2022	145	100	Excellent		
22/11/2022	85	49	Excellent		
06/12/2022	10	27	Excellent		
19/12/2022	20	66	Excellent		

Source: Beaches.ie