# Annual Environmental Report

2023



Shanganagh-Bray

D0038-02

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

This Annual Environmental Report has been prepared for D0038-02, Shanganagh-Bray, 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 at the WWTP in 2023.

Refer to Section 4.2.1 for works on going on the network.

### 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	Compliant	N/A

### 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
ortho-Phosphate (as P) - unspecified mg/l	40	5.64	3.25
Ammonia-Total (as N) mg/l	40	49	28
Total Phosphorus (as P) mg/l	40	9.40	5.64
pH pH units	40	7.70	7.46
Suspended Solids mg/l	40	454	223
BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l	37	308	167
COD-Cr mg/l	40	668	364
Total Nitrogen mg/l	40	67	38
Hydraulic Capacity	N/A	115188	39912

If other inputs in the form of sludge / leachate are added to the WWTP then these are included in Section 2.1.5 if applicable.

### **Significance of Results:**

The annual mean hydraulic loading is less than the peak Treatment Plant Capacity. The annual maximum hydraulic loading is greater than the peak Treatment Plant Capacity. Further details on the plant capacity and efficiency can be found under the sectional 'Operational Performance Summary'. 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 Note 1	Interim % reduction from influent concentration	Number of sample results	Number of exceedances	Number of exceedances with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
COD-Cr mg/l	125	250	N/A	40	N/A	N/A	49	Pass
Dissolved Inorganic Nitrogen (as N) mg/l	45	54	N/A	40	3	N/A	30	Pass
Suspended Solids mg/l	35	87.5	N/A	40	2	N/A	14	Pass
BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l	25	50	N/A	37	3	N/A	10	Pass
pH pH units	6	9	N/A	40	N/A	N/A	7.71	Pass
Conductivity @20°C μS/cm	N/A	N/A	N/A	40	N/A	N/A	823	
Temperature °C	N/A	N/A	N/A	1	N/A	N/A	4.00	

Parameter	WWDL ELV (Schedule A)	ELV with Condition 2 Interpretation included Note 1	Interim % reduction from influent concentration	Number of sample results	Number of exceedances	Number of exceedances with Condition 2 Interpretation included	Annual Mean	Overall Compliance (Pass/Fail)
ortho-Phosphate (as P) - unspecified mg/l	N/A	N/A	N/A	2	N/A	N/A	1.89	
Nitrate (as N) mg/l	N/A	N/A	N/A	40	N/A	N/A	3.86	
Total Nitrogen mg/l	N/A	N/A	N/A	40	N/A	N/A	32	
Ammonia-Total (as N) mg/l	N/A	N/A	N/A	40	N/A	N/A	26	
Fats, Oils & Greases mg/l	N/A	N/A	N/A	4	N/A	N/A	7.07	
Total Oxidised Nitrogen (as N) mg/l	N/A	N/A	N/A	40	N/A	N/A	4.03	
Total Phosphorus (as P) mg/l	N/A	N/A	N/A	40	N/A	N/A	2.33	
Nitrite (as N) mg/l	N/A	N/A	N/A	40	N/A	N/A	0.169	

### **Cause of Exceedance(s):**

Not applicable

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

### **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 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	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 compliant with the ELV's set in the wastewater discharge licence.

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	3111176	194303	94
COD	5067765	691698	86
ТР	78594	32982	58
cBOD	2326648	169790	93
TN	533382	460264	14

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 (m³/day)	36000
Current Hydraulic Loading - annual max (m³/day)	115188
Average Hydraulic loading to the Treatment Plant (m³/day)	39911.86
Organic Capacity (PE) - As Constructed	186000
Organic Capacity (PE) - Collected Load (peak week)Note1	138672
Organic Capacity (PE) - Remaining	47328
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 the 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 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 environmental complaints in 2023.						

### 3.2 REPORTED INCIDENTS SUMMARY

Environmental incidents that arise in an agglomeration are reported on an on-going basis in accordance with our waste water discharge licences. Where an incident occurs and it is reportable under the licence, it is reported to the Environmental Protection Agency through their Environmental Data Exchange Network, or in some instances by telephone. Some incidents which arise in the agglomeration are recorded by Uisce Éireann but may not be reportable under our licence for example where the incident does not have an impact on environmental performance.

A summary of reported incidents is included below.

#### 3.2.1 SUMMARY OF INCIDENTS

Incident Type	Cause	Recurring (Y/N)	Closed (Y/N)
Uncontrolled release	SWO Design not meeting DoEHLG Criteria	Yes	No
Abatement equipment off-line	Plant or equipment maintenance at WWTP	No	Yes
Uncontrolled release	SWO exceptional rainfall and overflow expected	No	Yes

Incident Type	Cause	Recurring (Y/N)	Closed (Y/N)
Uncontrolled release	SWO exceptional rainfall and overflow expected	No	Yes
Uncontrolled release	Blocked Sewer	No	Yes
Uncontrolled release	SWO exceptional rainfall and overflow expected	No	Yes
Uncontrolled release	SWO exceptional rainfall and overflow expected	No	Yes
Uncontrolled release	SWO exceptional rainfall and overflow expected	No	Yes
Uncontrolled release	SWO exceptional rainfall and overflow expected	No	Yes
Uncontrolled release	Plant or equipment breakdown at WWTP	No	Yes
Breach of ELV *	Inadequate Operational Procedures/Training	Yes	Yes
Uncontrolled release	SWO exceptional rainfall and overflow expected	No	Yes
Uncontrolled release	SWO exceptional rainfall and overflow expected	Yes	Yes
Uncontrolled release	SWO exceptional rainfall and overflow expected	No	Yes
Other	Shock load to the WWTP	No	Yes
Uncontrolled release	SWO exceptional rainfall and overflow expected	No	Yes
Uncontrolled release	SWO exceptional rainfall and overflow expected	Yes	Yes
Uncontrolled release	SWO exceptional rainfall and overflow expected	No	Yes
Uncontrolled release	SWO exceptional rainfall and overflow expected	No	Yes
Uncontrolled release	SWO exceptional rainfall and overflow expected	No	Yes

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

<sup>\*</sup> The WWTP discharge was compliant with its WWDL based on the no. of compliance samples taken in 2023. This incident was related to an issue with the composite sample.

### **3.2.2 SUMMARY OF OVERALL INCIDENTS**

Question	Answer
Number of Incidents in 2023	25
Number of Incidents reported to the EPA via EDEN in 2023	25
Explanation of any discrepancies between the two numbers above	N/A

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

### 4.1 STORM WATER OVERFLOW IDENTIFICATION AND INSPECTION REPORT

A summary of the operation of the storm water overflows and their significance where known is included below:

### 4.1.1 SWO IDENTIFICATION

WWDL Name / Code for Storm Water Overflow (chamber) where applicable	Irish Grid Ref. (outfall)	Included in Schedule of the WWDL	Significance of the overflow(High / Medium / Low)	Assessed against DoEHLG Criteria	No. of times activated in 2023 (No. of events)	Total volume discharged in 2023 (m³)	Monitoring Status
ТВС	322644 226837		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	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)	Ref. Schedule of overflow(High /		Assessed against DoEHLG Criteria	No. of times activated in 2023 (No. of events)	Total volume discharged in 2023 (m³)	Monitoring Status
ТВС	322071 225515	No	Low Significance	Meeting Criteria	Unknown	Unknown	Monitored
ТВС	322399 225484	No	Low Significance	Meeting Criteria	Unknown	Unknown	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	Monitored
ТВС	325328 223502	No	Low Significance	Not Meeting Criteria	Unknown	Unknown	Not Monitored
ТВС	321590 225567	No	Low Significance	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	Monitored
TBC	327548 223736	No	Low Significance	Meeting Criteria	49	517896	Monitored

WWDL Name / Code for Storm Water Overflow (chamber) where applicable	Irish Grid Ref. (outfall)	Included in Schedule of the WWDL	Significance of the overflow(High / Medium / Low)	Assessed against DoEHLG Criteria	No. of times activated in 2023 (No. of events)	Total volume discharged in 2023 (m³)	Monitoring Status
TBC	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 wastewater discharge by metered SWOs during the year (m³)?	517896				
s each SWO identified as not meeting DoEHLG Guidance included in the Programme of Improvements?					
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-SIP.01	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria:  TPEFF3900D0038SW014	С	11/02/2021	No	Works Completed		DAP Assessment - SW014 compliant
D0038-SIP.02	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW015	С	11/02/2021	No	Work ongoing on-site		DAP Assessment underway. Completion date TBC
D0038-SIP.03	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW016	С	11/02/2021	No	Work ongoing on-site		DAP Assessment underway. Completion date TBC

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-SIP.04	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW017	С	11/02/2021	No	Work ongoing on-site		DAP Assessment underway. Completion date TBC
D0038-SIP.05	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW022	С	11/02/2021	No	Work ongoing on-site		DAP Assessment underway. Completion date TBC
D0038-SIP.06	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW023	С	11/02/2021	No	Work ongoing on-site		DAP Assessment underway. Completion date TBC
D0038-SIP.07	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW024	С	11/02/2021	No	Work ongoing on-site		DAP Assessment underway. Completion date TBC
D0038-SIP.08	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW025	С	11/02/2021	No	Work ongoing on-site		DAP Assessment underway. Completion date TBC

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-SIP.09	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW026	С	11/02/2021	No	Works Completed		DAP Assessment - SW026 compliant
D0038-SIP.10	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW027	С	11/02/2021	No	Works Completed		DAP Assessment - SW027 compliant
D0038-SIP.11	If not in compliance with DoECLG criteria following assessment, upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW028	С	11/02/2021	No	Work ongoing on-site		DAP Assessment underway. Completion date TBC
D0038-SIP.12	Upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF1000D0038SW003	С	11/02/2021	No	Works Completed		DAP Assessment - SW003 compliant
D0038-SIP.13	Upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW020	С	11/02/2021	No	Work ongoing on-site		DAP Assessment underway. Completion date TBC

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-SIP.14	Upgrade of sewer network to ensure stormwater overflow meets DoECLG criteria: TPEFF3900D0038SW021	С	11/02/2021	No	Work ongoing on-site		DAP Assessment underway. Completion date TBC

A summary of the status of any other improvements identified by under Condition 5 assessments- is included below.

### **4.2.2 IMPROVEMENT PROGRAMME SUMMARY**

Improvement Identifier	Improvement Description / or any Operational Improvements	Improvement Source	Expected Completion Date	Comments
No additional improve	ments planned at this time.			

### 4.2.3 SEWER INTEGRITY RISK ASSESSMENT

N/A

### **5 LICENCE SPECIFIC REPORTS**

A wastewater discharge licence may require a number of reports on specific subject areas to be prepared for the agglomeration in question. These reports are submitted to the EPA as part of the Annual Environmental Report. This section provides a list of the various reports required for this agglomeration and a brief summary of their recommendations.

Licence Specific Report	Required by licence	Included in this AER
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	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: 14/03/2024

This AER has been produced by Uisce Éireann's Environmental Information System (EIMS) and has been electronically signed off in that system for and on behalf of,

Eleanor Roche

Head of Environmental Regulation.

### **7 APPENDIX**

### **Appendix**

**Appendix 7.1 - Ambient Monitoring Summary** 

### **Shanganagh 2023 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 2023**

Sampling Point	Sampled Date	Ammonia	B.O.D.	Colour (Visual)	DIN	Dissolved Oxygen	E. coli	Enterococci	Odour	рН	TON	Total Coliforms
		μg/l as N	mg/l		μg/l	% Sat.	MPN/100ml	CFU/100ml		pН	μg/l as N	MPN/100ml
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	18/01/2023 10:27	14	<1	Normal	108	88	<10	21	Normal	8	94	121
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	15/02/2023 10:13	15	<1	Normal	117	84	<1		Normal	8	102	3
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	15/03/2023 09:35	66	<1	Normal	146	102	10		Normal	8	80	158
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	12/04/2023 08:40	<10	<1	Normal	79	101	31	11	Normal	8	79	246
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	10/05/2023 08:27	23	<1	Normal	23	100	20	1	Normal	8.1	<40	41
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	14/06/2023 08:30	11	<1	Normal	11	102	20	5	Normal	8.1	<40	52
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	12/07/2023 07:43	24	<1	Normal	24	100	<10	70	Normal	8.1	<40	<10
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	09/08/2023 08:15	26	<1	Normal	66	99	10	1	Normal	8	40	97
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	04/10/2023 08:26	54	<1	Normal	194	99	10	5	Normal	8	140	41
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	25/10/2023 09:30	40		Normal	155	98	94	44	Normal	8	115	1036
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	15/11/2023 08:50	31	<1	Normal	153	103	10	2	Normal	8	122	52
(40630) Receiving Water1 Shanganagh STW, Killiney Bay.	13/12/2023 09:45	30		Normal	272	97	86	28	Normal	8	242	1266
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	18/01/2023 10:15	<10	<1	Normal	85	87	<10	2	Normal	8	85	<10
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	15/02/2023 10:01	14	<1	Normal	155	84	1		Normal	8	141	2
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	15/03/2023 09:20	52	<1	Normal	146	100	10		Normal	8	94	75
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	12/04/2023 09:10	<10	<1	Normal	70	100	31	5	Normal	8	70	259
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	10/05/2023 08:18	<10	<1	Normal	< 50	100	<10	1	Normal	8.1	<40	10
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	14/06/2023 08:10	<10	<1	Normal	< 50	103	<10	4	Normal	8.1	<40	<10
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	12/07/2023 07:56	33	<1	Normal	33	100	<10	15	Normal	8.1	<40	<10
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	09/08/2023 08:00	33	<1	Normal	84	99	20	3	Normal	8	51	41
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	04/10/2023 08:10	29	<1	Normal	208	98	<10	1	Normal	8	179	10
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	25/10/2023 09:10	17		Normal	185	97	63	117	Normal	8	168	1014
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	15/11/2023 08:30	13	<1	Normal	132	102	10	2	Normal	8	119	98
(40632) Receiving Water2 Shanganagh STW, Killiney Bay.	13/12/2023 09:55	19		Normal	258	97	10	18	Normal	8	239	471

### Killiney Beach Bathing Water Monitoring Results 2023:

Date	E-Coli (cfu/100ml)	Intestinal Enterococci (cfu/100ml)	EPA Classification Standard		
03/01/2023	52	46	Excellent		
17/01/2023	20	9	Excellent		
30/01/2023	10	15	Excellent		
28/02/2023	10	1	Excellent		
13/03/2023	41	37	Excellent		
27/03/2023	10	23	Excellent		
24/04/2023	<10	1	Excellent		
08/05/2023	20	7	Excellent		
18/09/2023	122	7	Excellent		
25/09/2023	41	36	Excellent		
09/10/2023	20	9	Excellent		
23/10/2023	563	105	Sufficient		
06/11/2023	41	11	Excellent		
21/11/2023	20	5	Excellent		
06/12/2023	97	34	Excellent		
17/12/2023	<10	6	Excellent		
03/01/2023	52	46	Excellent		
17/01/2023	20	9	Excellent		

Source: Beaches.ie