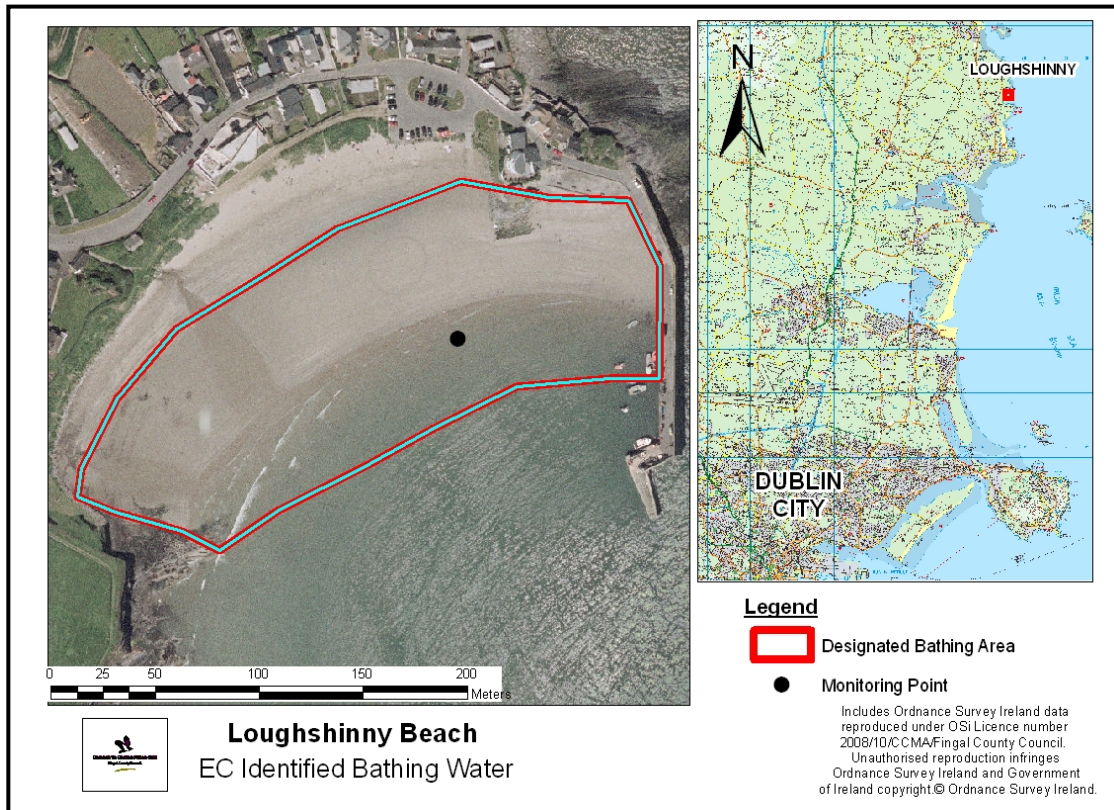


Fingal County Council

Bathing Water Management Plan for Loughshinny Beach 2024



Map 1: Location and Extent of Loughshinny Bathing Water

Bathing Water Name	Loughshinny Beach
County	Dublin
River Basin District	Eastern River Basin District
Bathing Water ID (as per the WFD)	IEEABWC020_0000_0400
Year of Designation	1992
Location of Sampling Point incl. 6 digit grid ref	327263E, 256842N
Responsible Authority	Fingal County Council

Status	Date	Prepared by	Reviewed by	Approved by
Final Draft	31.1.24	R. McGrath	J. Daly	J. Daly

1.0 INTRODUCTION : EPA GUIDANCE ON MANAGEMENT OF POOR BATHING WATERS

Guidance was issued by the EPA to inform Fingal County Council of the

- *legislative requirements to be undertaken following the classification of a bathing water as **Poor** and*
- *the management approach to be undertaken to improve the water quality of a Poor bathing water.*

The guidance advised that the management plan needs to address the following:

- a. **Local authority confirms** that there is a requirement for the bathing water to remain as identified bathing water
- b. **Local authority informs** of its decision on the **type of seasonal bathing restriction**, i.e. advice against bathing or bathing prohibition, to be issued at the Poor bathing water for the following season. The local authority's decision on the type of seasonal bathing restriction to issue at the Poor bathing water should be based on ensuring adequate bather protection.
- c. The **cause(s) of pollution** affecting the bathing water are clearly identified. Where causes of pollution require further investigation provide relevant details and timelines for completion of this task.
- d. The **measures**, including interim actions, proposed to prevent, reduce or eliminate the causes of pollution. Details of the measures proposed, timelines and responsible authority will need to be provided.
- e. Local authority **strategy for communicating** to the public (in addition to notice at the bathing water) of the:
 - *causes and reasons for Poor classification of the bathing water,*
 - *measures being undertaken and planned to improve the water quality of the bathing water*
 - *implications for bather health*
 - *where/who to contact for more information.*

2.0 DESCRIPTION OF BATHING WATER

Loughshinny Beach is a small, sandy and sheltered cove-like beach located approximately 30.5km from Dublin City Centre. The beach is 0.2km long. Adjoining the beach to the east is a small, active fishing harbour – Loughshinny harbour. Immediately surrounding the beach are rocky shores and cliffs

A more detailed description of the bathing water and contributing catchment and pressures can be found in the Loughshinny Beach bathing water profile on the EPA's website www.beaches.ie

Fingal County Council confirms that Loughshinny bathing water will remain as an Identified Bathing Water for 2024.

3.0 DESCRIPTION OF THE CONTRIBUTING CATCHMENT:

The land use in the area immediately surrounding the bathing water is principally urban fabric consisting of private domestic dwellings.

The contributing catchment area for the beach is limited to Loughshinny Village. There are two small streams discharging to the bathing area. The stream flowing to the southern part of the bathing area flows through mainly farmland taking in ditches from the surrounding rural landscape. The stream discharging to the centre of the bathing area takes all surface water from within Loughshinny Village and the Rockabill Housing Estate.

There is no formal designated area in the vicinity of the identified bathing water. 3.5 km to the north of Loughshinny beach lies the Skerries Islands which are designated as Special Protection Areas (SPA), Special Areas of Conservation (SAC) and a Natural Heritage Area (NHA). 1.2km to the north of the beach, the Loughshinny Coastal area is a proposed Natural Heritage Area (pNHA). The Rogerstown Estuary, located 3.5km to the south of the beach is a designated Special Protection Areas (SPA), Special Areas of Conservation (SAC) and proposed Natural Heritage Area (pNHA).

4. BATHING WATER QUALITY ASSESSMENT

4.1 Bathing Water Regulations 2008

The Bathing Water Regulations 2008 specifies that two parameters Escherichia coli and Intestinal enterococci are monitored at identified beaches throughout the bathing water season. Laboratory reported bacterial counts from samples taken during the bathing season define water quality. Table 1 provides an explanation of water quality for each of these parameters.

Parameter	Excellent Quality	Good Quality	Sufficient Quality
Escherichia coli (cfu/100ml)	250(*)	500(*)	500(**)
Intestinal enterococci (cfu/100ml)	100(*)	200(*)	185(**)

Table 1 Water Quality as per Bathing Water Regulations

(*) Based upon a 95-percentile evaluation

(**) Based upon a 90-percentile evaluation

The classification of water quality status for Loughshinny Beach for the period 2020-2023 is as follows:

2023 – Poor – All Season Advisory (Advice not to swim)

2022 - Sufficient

2021 - Sufficient

2020 – Sufficient

4.2 Bathing Water Quality 2020-2023

Bathing Water Quality data collected for Loughshinny beach has been compared to the in-season single sample status assessment limits (Refer to Table 2). These limits are for informational purposes throughout the bathing season only. The annual classification is based on a 4 year assessment (Refer to Section 4.1).

Parameter	Excellent	Good	Sufficient	Poor
Intestinal enterococci	≤ 100	101 - 200	201 - 250	>250
Escherichia coli	≤250	251 - 500	501 - 1000	>1000

Table 2 Single Sample Limits for In-Season Water Quality Status Assessment

Bathing Water Quality data which has been collected for Loughshinny beach and is compared to the single sample status assessment limits is presented in Table 3 (Source: beaches.ie).

Date	Escherichia Coli	Intestinal Enterococci	Sample Status*	Quality
11/09/2023	135	50	Excellent	
28/08/2023	185	133	Good	
14/08/2023	97	35	Excellent	
31/07/2023	41	7	Excellent	
17/07/2023	10	103	Good	
11/07/2023	256	123	Good	
26/06/2023	122	72	Excellent	
12/06/2023	<10	2	Excellent	
29/05/2023	<10	<1	Excellent	
05/09/2022	148	73	Excellent	
22/08/2022	187	94	Excellent	
08/08/2022	10	1	Excellent	
25/07/2022	20	7	Excellent	
11/07/2022	3654	420	Poor	
27/06/2022	85	20	Excellent	
13/06/2022	<10	2	Excellent	
07/06/2022	52	7	Excellent	
24/05/2022	73	26	Excellent	
06/09/2021	41	26	Excellent	
31/08/2021	295	75	Good	
17/08/2021	10	3	Excellent	
03/08/2021	<10	<1	Excellent	
19/07/2021	<10	5	Excellent	
05/07/2021	<10	1	Excellent	
21/06/2021	397	200	Good	
08/06/2021	<10	3	Excellent	
24/05/2021	<10	1	Excellent	

01/09/2020	63	9	Excellent
25/08/2020	2282	320	Poor
11/08/2020	1210	270	Poor
27/07/2020	703	640	Poor
13/07/2020	135	48	Excellent
29/06/2020	10	17	Excellent
15/06/2020	<10	82	Excellent
02/06/2020	<10	21	Excellent
11/09/2023	135	50	Excellent
28/08/2023	185	133	Good

Table 3 Bathing Water Quality at Loughshinny Beach 2020-2023

4.3 Bathing Water Assessment 2024

In December 2023 the EPA advised that the classification of water quality status for Loughshinny Beach for the 2024 bathing season is **Poor** (based on the assessment of 2020-2023 data).

**The decline in the status at Loughshinny Beach is due to the statistical analysis over a 4-year period; a number of “excellent” single sample results in 2019 were replaced with a mixture of “excellent” and “good” single sample results in 2023, thereby leading to a decline in the 4-year classification period 2020-2023*

4.4 Seasonal Bathing Restriction for 2024

During the period 2020 – 2023, there were a total of 36 samples analysed for bathing water quality. Of these, 4 are classified as ‘Poor’ (3 no. in 2020 and 1 in 2022), 0 were classified as ‘Sufficient’, 5 were classified as ‘Good’ and with the remaining 27 samples classified ‘Excellent’.

On the basis of the above results, Fingal County Council has decided that an Advisory Notice, placed at the beach for the duration of the bathing season 2024, will be sufficient to safeguard bather’s health.

5.0 REVIEW OF POLLUTION SOURCES

The main causes of pollution that may affect the bathing water are outlined in Table 4:

Pressure No	Pressure Source
1	Animal fouling at the beach
2	Surface Water Streams within the beach catchment
3	Domestic wastewater treatment systems within the beach catchment
4	Foul Sewer Network
5	Bird fouling

Table 4 Summary of pressure sources within the catchment posing a quantifiable microbial risk

1. Animal fouling at the beach

Use of the beach by dog walkers and horse riders and subsequent fouling on the beach may pose a risk to bathing water quality. MST analysis was carried out in 2023 (1 date), 2022 and 2021 at the bathing water compliance point and horse marker was absent (below lab quantification level) but dog marker was present above lab quantification levels for all except for 3 dates.

2. Surface water streams within the beach catchment

Surface water outfalls onto the beach could pose a risk to bathing water quality due to misconnections into the surface water system. There are two small streams discharging to the bathing area. The stream discharging to the centre of the bathing area (A) takes all surface water outfalls from within Loughshinny Village and Rockabill Housing Estate. The stream (B) to the southern part of the beach flows through farmland taking in ditches from the surrounding rural landscape. Limited sampling of the two streams using MST analysis has been carried out (Human, Dog, Horse, Gull and Ruminant Markers). However, results to date showed no correlation with a failure at the bathing water compliance point.

3. Domestic wastewater treatment systems within the beach catchment

Domestic wastewater treatment systems in the upper catchment that are not functioning correctly may contribute to pollution of streams in the vicinity of the beach and consequently may affect the bathing water.

4. Foul Sewer Network

Network flows from Loughshinny are now diverted via a pumping station in Loughshinny car park for treatment at Balbriggan Wastewater Treatment Plant in Skerries. The new pumping station has an Emergency Overflow and Storm Water Overflow adjacent to the designated bathing area. An electrical or mechanical breakdown of the pump can result in a discharge to the Irish Sea to the north of the bathing area. The risk of microbial impact on the designated bathing water may still be significant if the emergency overflow was discharging. Uisce Éireann did not report any incidents/overflows from the pump station during the 2023 bathing season. An operational spill design of 3 per bathing season applies.

5. Bird fouling at the beach

Birds feeding on fish associated with adjacent fishing harbour may cause fouling of the bathing water. There is a cliff walk to the south of the bathing area and the cliffs are frequented by bird watchers spotting wild birds. MST analysis was carried out in 2023 (1 date), 2022 and 2021 at the compliance point and gull markers were below lab quantification (BLQ) levels in all except two samples (2021).

6.0 PROPOSED MEASURES TO IMPROVE BATHING WATER QUALITY AT LOUGHSHINNY BEACH

Details of the proposed measures, timelines and responsible authorities are outlined in Appendix 1.

The programme of measures will be reviewed annually.

7.0 COMMUNICATIONS STRATEGY

Fingal County Council proposes to promote public awareness of the poor status of Loughshinny Beach by implementing those actions as outlined in Table 5. These have been devised in conjunction with the Council's Communications Department. The nominated point of contact for further information is Executive Scientist, Environment Division, Fingal County Council, phone no. 01-8905000.

Item	Description	Action by
1	Place the appropriate <i>EPA-standard poor bathing water template sign for seasonal bathing water restriction</i> with information regarding the causes of the pollution affecting the bathing water and measures taken on the beach notice board	Environment Division
2	Train lifeguards in significance of water quality data and how to advise the public on how to obtain further information	Operations Department
3	Provide information on the EPA's national website; beaches.ie and Fingal website; www.fingal.ie	Environment Division
4	Direct communications to the Elected Members and updates on Bathing Water Quality to the Chief Executive Report	Environment Division
5	Use of social media to circulate updated information and provide information on bathing water results and warning notices to registered users through Fingal Alerts system	Environment Division/Communications Department
6	General Bathing Water Awareness Programme at the beach (including Dog Warden patrols – subject to resources available)	Environment Division/Communications Department

Table 5 Communications Strategy

APPENDIX 1			
DETAILS OF PROPOSED MEASURES TO IMPROVE BATHING WATER QUALITY AT LOUGHSHINNY BEACH 2024			
PRESSURE 1	ANIMAL FOULING AT THE BEACH		
PRESSURE TYPE	Fouling		
Microbial Pollution Potential	MODERATE		
Pressure Description	Use of the beach by dog walkers and horse riders and subsequent fouling may pose a risk to bathing water quality.		
SHORT TERM ACTIONS	Agency responsible	Contact person	Target timeframe
A public awareness campaign regarding the dangers of dog fouling to bathing water quality will include this beach.	Fingal County Council Environment Division	M. Hand	Q2 2024
Operations staff to review the Loughshinny beach environs for new bin locations	Fingal County Council Environment Division	S.E.E. Operations	Q1 2024
Duplicate sampling of bathing waters for pathogen speciation purposes will take place if service available from UCD as per proposal for the continuation of the Acclimatize Project.	Fingal County Council Environment Division	D. Byrne	Q2-Q3 2024
Dog warden and Litter wardens will target the beach for inspections during the Bathing Season	Fingal County Council Environment Division	M. Hand	Q2/Q3/2024
PRESSURE 2	SURFACE WATER OUTFALLS ONTO BEACH		
PRESSURE TYPE	Contaminated water		
Microbial Pollution Potential	MODERATE		
Pressure Description	Surface water outfalls onto the beach may pose a risk to bathing water quality due to misconnections into the surface water system.		

SHORT TERM ACTIONS	Agency responsible	Contact person	Target timeframe
Sampling of outfalls/streams to determine water quality and identify sources of pollution and misconnections.	Fingal County Council Environment Division	D. Byrne	Q1-Q3 2024
Enforcement action where required	Fingal County Council Environment Division	D. Byrne	Q3/Q4 2024
PRESSURE 3	DOMESTIC WASTEWATER TREATMENT SYSTEMS WITHIN THE BEACH CATCHMENT		
PRESSURE TYPE	Sewage		
Microbial Pollution Potential	MODERATE		
Pressure Description	Domestic wastewater treatment systems that are not functioning correctly may contribute to pollution of streams within the beach catchment and consequently may affect the bathing water.		
SHORT TERM ACTIONS	Agency responsible	Contact person	Target timeframe
Inspections of domestic wastewater treatment systems within the beach catchment will be undertaken as part of the National Inspection Plan 2022-2026	Fingal County Council Environment Division	D. Byrne	Q2-Q4/2024
Enforcement action where required	Fingal County Council Environment Division	D. Byrne	Q4/2024
PRESSURE 4	FOUL SEWER NETWORK AND PUMPING STATIONS		
PRESSURE TYPE	Sewage		
Microbial Pollution Potential	MODERATE		
Pressure Description	The Loughshinny agglomeration is connected to the Balbriggan Wastewater Treatment Plan at Skerries via a pumping station located at the Loughshinny car park. Emergency overflows and Storm water overflows are discharged to the Irish Sea adjacent to the harbour wall north of the bathing area.		

SHORT TERM ACTIONS	Agency responsible	Contact person	Target timeframe
The pumping station is on a telemetry system which allows for notification and rapid response to overflows. There are also frequent inspections and maintenance of the pumping stations by UÉ.	Uisce Éireann	Uisce Éireann	Q1-Q4 2024
PRESSURE 5	BIRD COLONY		
PRESSURE TYPE	Fouling		
Microbial Pollution Potential	LOW		
Pressure Description	Impact of birds feeding on fish in vicinity of fishing harbour		
SHORT TERM ACTIONS		Contact person	Target Timeframe
Waste disposal facilities are provided at the adjacent fishing harbour.	Fingal County Council Operations Department	S.E.E. Operations Department	Q1-Q4 2024