2023 Assessment - Designation of North Bull Wall as an EU Identified Bathing Water
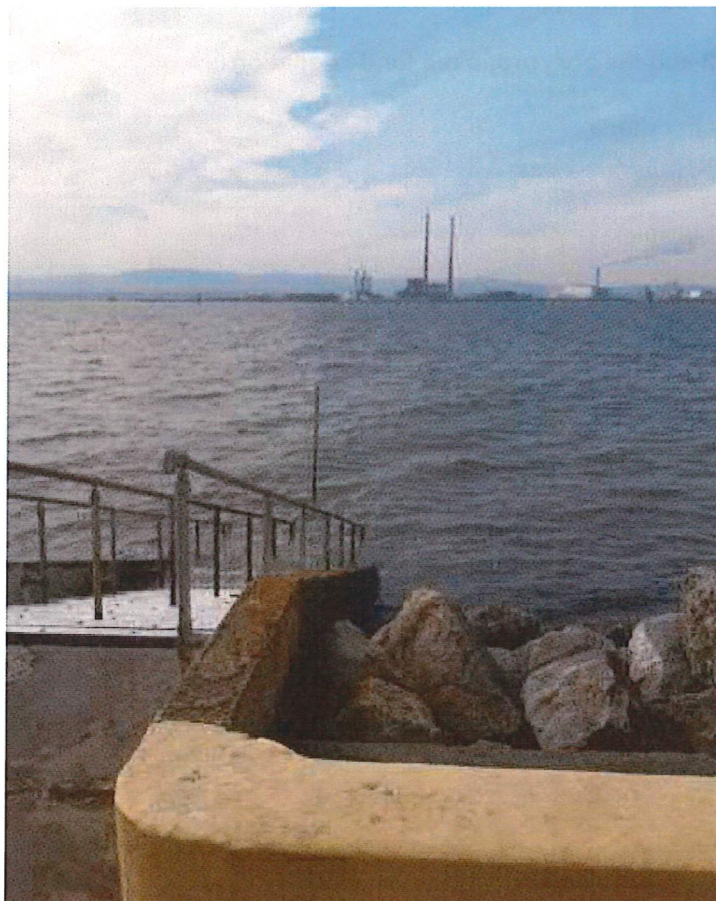
Comhairle Cathrach
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Dublin City Council

Revision	Status	Date	Prepared by	Reviewed by	Approved by
1	Final	27/10/23	Emma Finlay A/Senior Executive Engineer Water Pollution Control Section	Roy O'Connor Senior Engineer Kevin Callanan, Senior Executive Scientific Officer	James Nolan Executive Manager (Engineering)

1. Introduction

1.1. Bathing water legislation

The 2008 Bathing Water Regulations (SI No 79 of 2008) transpose the Bathing Water Directive (2006/7/EC) into Irish law. These regulations apply much more stringent criteria than preceding bathing water legislation to the bacteriological quality of bathing waters and demand a strong focus on the management of pollution sources for the purpose of reducing the risk to public health from bathing waters. The bathing water season in any year means the period from 1 June to 15 September.

The Local Authority is the body responsible for the designation and management of bathing waters. Article 17 of the regulations require the Local Authority to encourage public participation in relation to the establishment, review and updating of lists of bathing waters.

The reader is referred to EPA document 'Public advice on identifying new bathing waters' for more information on the governing legislation, the role of the Local Authority and procedures relating to the designation of bathing waters. The advice was made available to view on a dedicated public participation webpage on Dublin City Councils website here.

1.2. What is a bathing water?

Article 4(2) of the 2008 Bathing Water Regulations states that;

"The bathing waters to be identified by a local authority shall be all elements of surface water where the authority expects a large number of people to bathe."

The Regulations do not specify what constitute 'bathers' or 'large numbers'. While the European Commission considers that 'bathers' constitutes all users of a beach, Member States have generally interpreted 'bathers' as people in direct contact with the water for recreational use. The exception here is for water sports such as kayaking, surfing, wind surfing, etc. Areas where these activities occur should be considered for identification as a bathing water *only* if bathing is also occurring at that location.

It is challenging to determine what constitutes 'large numbers'. In the Irish context, it is very difficult to put a figure on this, as factors such as weather, accessibility and popularity influence when and how many people use a beach. For the current designated Irish bathing waters, 'large numbers' can range from 5 upwards, depending on the location.

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2. 2023 Period of Public Participation

Each year, a notice inviting submissions as part of public participation is placed in a national newspaper and on Dublin City Council's dedicated public participation website. Submissions are invited by the public to comment on existing bathing waters and/or to propose new bathing waters to be considered for designation. A notice was published in the Irish Independent by the LGMA on Monday 08/05/23. DCC published the notice on the aforementioned dedicated public participation webpage.

Any person, community body, public body or third party can make a submission to the relevant Local Authority requesting that a body of water, either inland or coastal, be considered for designation. Applications may also come from within the Local Authority. However, the Local Authority must be satisfied that it meets the relevant criteria set out in EPA guidance for classification as a designated bathing water.

The Water Pollution Control Section manages this process on behalf of Dublin City Council. The 2023 public participation period ran from the 09/05/23 until 28/09/23. All submissions received by the Water Pollution Control Section were acknowledged by email, typically on the same day it was received, or as soon as practicable thereafter. The factors submitted for consideration did not differ greatly between submissions or from what was submitted in previous years. Nonetheless, they were considered in the subsequent designation assessment of the North Bull Wall.

The last designation assessment of the North Bull Wall was conducted in 2021. The assessment concluded the location did not meet the criteria for designation due to poor water quality. However, it would be recognised as an *other monitored* location and monitored at the same frequency as a designated location.

3. North Bull Wall and the area proposed for designation

The North Bull Wall forms the southern end of the North Bull Island (see Figure 1 below). A wooden bridge connects this end of the island to the mainland at Clontarf. A roadway for vehicular access and a footpath for pedestrian access are located on the wall. The roadway facilitates access to Bull Wall Cottages and The Royal Dublin Golf Course. There is a second access route to the North Bull Wall from the causeway to the island, opposite Watermill Road, and via the Royal Dublin Golf Course, but this is not typically available to members of the public to access the area.

Figure 1 North Bull Wall

The roadway ends at a car park about half way along the wall. Another roadway extends from this car park allowing vehicular access onto Dollymount Strand. The footpath continues along the wall for approximately 700 metres where it terminates at a statue known as 'Our Lady, Star of the Sea'. This is a very popular walk for members of the public.

There are four changing shelters, two for males and two for females, situated along the wall, each with steps down to the water. These are the primary locations where people access the water for bathing.

The area proposed to be designated is shown in Figure 2 below. It extends for a distance of approximately 0.7 km along the Bull Wall, ending at *Our Lady, Star of the Sea* statue. The area to be considered for designation extends outwards from the wall a distance of approximately 50 metres.

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Figure 2 Proposed area of designation (note: not to scale)

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4. EPA assessment criteria

4.1. Assessment Criteria

The EPA has issued a report '*A framework to assist Local Authorities in the assessment of submissions for the identification of new bathing waters*' which provides guidance on how to assess submissions in relation to the designation of new bathing waters. This is in accordance with the requirements of the Bathing Water Regulations (SI No. 79 of 2008) which transpose Directive 2006/7/EC into Irish Law.

While it is not a requirement for the Local Authority to assess submissions received in accordance with the guidance document, the EPA recommends it be taken into account when considering submissions for new bathing waters received from the public. Dublin City Council included all the criteria in the document when assessing the submissions.

The criteria are summarised in Table 1 below. For a full description of the criteria, the reader is referred to EPA's framework document referred to above.

Criteria	Brief Description
Location	• Bathing area should be easily and readily accessible to the anticipated number of beach users/bathers without causing environmental damage. • NPWS must be consulted where the proposed bathing area is within a designated natural heritage area (i.e. SAC, NHA, SPA, Natura 2000).
Beach Users/Bather Numbers	• At least 2 survey days are required to assess bather numbers. • Dublin City Council conducted user number surveys on 2 non-consecutive days during the 2023 bathing season. • For this assessment, 'bathers' are anybody interacting with the water, whether physically immersed, actually swimming or simply paddling.
Car Parking/Facilities	• The beach should be adequately signposted • There should be sufficient car parking • Picnic facilities should be considered • Toilets should be available at the beach • Adequate litter management should be in place • The Local Authority should give consideration as to whether animal access should be restricted
Commercial Impacts	Consideration should be given to whether designation would impact negatively or positively on commercial activities.
Local Community Support	The extent of local community support should be considered and an assessment of community support should ideally be included with submissions.

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Water Quality	Dublin City Council assessed water quality in the area and identified potential pollution sources. It is neither practicable nor reasonable to expect members of the public to carry out such an assessment.
Signage/Other Information	An assessment of available bathing water information signage or the installation of same should be considered.
Safety	Safety is a key consideration, not only in respect of the management of safe access to the bathing water and overall water safety, but also in respect of issues such as traffic management on access routes or in car parks as well as the safety of Local Authority staff when carrying out water quality monitoring.
Planned infrastructure/WWTP developments	Consideration must be given to the potential positive or negative impacts of any known or proposed environmental, urban, or infrastructural changes on the proposed bathing area.
Costs	Consideration should be given to the costs associated with designation, including management of bathing water quality, installation of signage, safety equipment, lifeguards (where deemed necessary).

Table 1 Criteria for the assessment of new bathing waters

4.2. Overall Assessment

Dublin City Council review submissions for the identification of a new bathing water in line with the general advice provided in the EPA guidance document and make an assessment of the relative strength of each of the 10 criteria.

Each of the above 10 factors is rated on a scale of 1 to 5, as follows:

- 1 – not suitable/low/expensive
- 5 – very suitable/high/inexpensive

The weighted score is the product of the Dublin City Council overall rating of each of the criteria (A) x the Weighting factor provided by the EPA for each (B).

The EPA has proposed that a weighted score of 65 or higher is required for accepting the proposed location as an EU identified bathing area and a score of at least 50 is required for acceptance as an 'other monitored water.'

However, the EPA has stated that the Local Authority may apply other criteria to the assessment, provided these additional criteria are fully justified. Dublin City Council has opted to apply greater emphasis to water quality, based on many years of water quality assessment as well as local knowledge of pressures, both human and animal, on water quality. Consistently poor water quality poses a significant risk to bather health. Refer to Section 5 for the assessment for further information.

5. 2023 Assessment

5.1. Bathing water quality in 2023

Dublin City Council (DCC) has monitored water quality at the proposed location since 2008. Initially, the parameters assessed were faecal streptococci, faecal coliforms and total coliforms. As required by the Bathing Water Regulations, 2008, the use of these parameters ceased on the 31st December 2014 and, since then, the parameters assessed have been *E coli* and Intestinal Enterococci (I.E).

DCC monitors bathing water quality at six locations throughout the year. Two bathing waters are designated, namely Sandymount and Dollymount Strands, whereas the North Bull Wall, the Half Moon, Shelley Banks and Merrion Strand are undesignated and are classified as "other monitored waters". DCC takes 20 scheduled samples at each location during the bathing season, and samples on a fortnightly basis thereafter. Investigative sampling further compliments the scheduled samples during the season.

Single sample results are classified as Excellent, Good, Sufficient or Poor depending on the quantity of Ecoli and Intestinal Enterococci (indicator bacteria) contained therein. Sampling results are posted in hardcopy format at bathing water entrances and are available online at www.dublincity.ie/bathingwater. Furthermore, results are also published on the Environmental Protection Agency's (EPA) National Bathing Water website www.beaches.ie.

Water quality at the North Bull wall is highly sensitive to weather related impacts. While a steady improvement in water quality was observed in previous years, unseasonal adverse weather and storm events impacted water quality at the location during the 2023 bathing season. July was a particularly poor month, with Met Eireann reporting it as the wettest on record. Five rainfall weather warnings were issued during this period which temporarily impacted water quality as reflected in the bathing season results.

Total rainfall in millimetres for PHOENIX PARK

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
2023	42.4	12.2	121.3	76.4	27.9	50.9	149.1	109.4	118.2
2022	16.7	91.9	41.4	37.9	55.9	56.1	39.1	14.4	128.7
2021	115.6	61.7	34.2	16.2	96.9	14.2	83.6	51.2	33.4
2020	39.6	141.5	30.7	13.6	8.3	68.9	100.7	89.3	56.3
LTA	65.3	51.3	54.0	52.7	61.4	69.7	54.9	73.1	60.0

Table 2 - Total rainfall (mm) for Phoenix Park by month

23 samples were taken in total at the North Bull Wall during the 2023 Bathing Season. This included 20 scheduled and 3 investigative samples. Table 3 below provides a summary of single sample assessment results.

In summary, *17* samples *(74%)* met the required standard of *Sufficient*. 6 samples *(26%)* returned as Poor, with 5 failures occurring in July and correlate to adverse weather events.

Single Sample Assessment Result	Excellent	Good	Sufficient	Poor
Number of samples obtaining result	7	7	3	6

Table 3 – Summary of single sample assessment results

5.2. Bathing water classification

The EPA are responsible for the assessment and assignment of an annual quality rating or bathing classification of a beach. The assessment takes account of the four preceding seasons single sample results and assigns an overall rating of Excellent, Good, Sufficient or Poor in accordance with the Regulations. This classification provides a better overall assessment of water quality at a location.

Dublin City Council has followed the same bathing water classification approach for the North Bull Wall for the 4 preceding seasons. The analysis indicated that water quality was such that the bathing water would be classified as **'Poor'** for the last 4 years. A summary of bathing water quality is detailed below which highlights consistently poor quality at this location, with *E. coli* the principal limiting parameter.

Assessed Season	Period	E Coli (90 %ile)	I.E. (90 %ile)	E Coli Classification	I.E. Classification	Overall Classification
2023	2020-2023	804	250	Poor	Poor	**Poor**
2022	2019-2022	528	160	Poor	Sufficient	**Poor**
2021	2018-2021	545	141	Poor	Sufficient	**Poor**
2020	2017-2020	581	137	Poor	Sufficient	**Poor**

Table 4 – Summary of annual classification forecasts

An EPA classification of "Poor" at the North Bull Wall would result in the bathing water being subject to an immediate seasonal bathing water prohibition in order to protect bather health.

Refer to Figure 3 for an example of the prohibition that would be immediately required at the North Bull Wall should it be designated by Dublin City Council. This would continue until water quality returned a classification of at least "Sufficient". It is evident from Table 4 that this has not been possible for at least the last 4 years.

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Figure 3 Bathing Prohibition

Failure to achieve a classification of better than "Poor" over five consecutive years would result in the mandatory loss of designation. As bathing water quality at the proposed location is not currently reaching a consistently acceptable standard (better than 'Poor'), the Council does not consider it appropriate at this time to designate the North Bull Wall. Rather, the location will continue to be recognised as an *other monitored* water.

Of note, DCC monitors water quality at *other monitored* waters at the same frequency as designated sites. Furthermore, results are disseminated to the public in the same manner, frequency and format as designated sites.

Notwithstanding the above, further consideration on the designation of the North Bull Wall shall be revisited in the future, particularly where water quality is shown to improve to an acceptable standard and doesn't pose a risk to public health. Until then, however, protecting bather health remains the primary priority of Dublin City Council and bathing at designated sites only is encouraged. The adjacent designated bathing location Dollymount Strand holds a current classification of *Good.*

Improving bathing water quality at the North Bull Wall is an ongoing task, and due to a number of complex contributing factors, there is no *quick fix*. Nonetheless, DCC is committed to improving surface and bathing water quality throughout its catchments, and as such continues to prioritise operational activities which target pollution including misconnection inspections, responding to pollution incidents and investigating unauthorised discharges.

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6. Assessment of Submission – Scoring of each criterion

The submission to have North Bull Wall designated as an EU identified bathing water has been assessed using the EPA document *"A framework to assist Local Authorities in the assessment of submissions for the identification of new bathing waters"*. Bathing water quality remains at poor status and so the overall assessment for designation remains unchanged and the comments made in 2021 as shown in Table 5 remain valid for 2023.

Factor	Rating (A) (1-5)	Weighting (B) (1-5)	Weighted score (A x B)	Comments
Location	5	3	15	Easily accessible
Beach users / Bather numbers	5	4	20	History of bathing at this location. Approximately 10 – 30 people bathe daily all year round at this location. Bather numbers are elevated further during the bathing season.
Car Parking / Facilities	2	2	4	There is limited car parking in the area. Small car park in place, shared by Dollymount Strand, and most people park along the causeway.
Commercial impacts	4	1	4	Designation would not create any commercial impacts.
Local Support	5	1	5	There is very strong local support for designation.
Water Quality	1	5	5	Under the current EPA classification method, water quality would be classified as poor. Poor water quality poses a significant risk to bather health.
Signage	1	2	2	Signage would have to be upgraded for bathing water monitoring purposes.
Safety	1	5	5	A risk assessment report was received from Irish Water Safety. Active shipping lane, Dublin Port.
Planned Developments	1	1	1	There are no known planned developments for the proposed designated area. However, both Dublin Port and Irish Water, subject to ABP approval, may be carrying out works in the future that may impact water quality.

Costs	3	3	9	As water quality is already monitored at this location, there would be minimal additional cost associated with monitoring the location as a designated bathing water. However, due to the extent and complexity of the various pressures impacting on water quality, the level of resources required to address these could be deemed prohibitive and unsustainable.

Overall weighted score	70	Exceeds the minimum recommended scoring for designation. However, satisfactory water quality cannot be guaranteed at this location.
Deferred pending additional data	Y / N	n/a
Accepted as an EU identified BW	Y / (N)	On the basis that water quality is classified as Poor.
Accepted as 'other monitored water'	(Y) / N	
Rejected	Y / N	n/a
General summary of the proposal and assessment outcome	DCC's monitoring of the waters at the North Bull Wall indicates that it would have a classification of 'Poor' for 2023 under EPA assessment criteria. Poor water quality poses a significant risk to bather health. Therefore as detailed in Section 5, it is not recommended that bathing be encouraged at the North Bull Wall nor it be formally designated. The status of 'other monitored water' is considered more appropriate given the activity at the location.	

Table 5 Assessment of Submissions

Signed: <u>Emma Finlay</u>

Position: <u>A/ Senior Executive Engineer</u>

Date: <u>26/10/23</u>

7. Conclusion and Recommendation

During the 2023 period of public consultation, Dublin City Council received 5 submissions requesting that the North Bull Wall be designated as an EU identified bathing water.

The submissions were assessed in accordance with EPA guidance, with greater consideration given to water quality based on historical monitoring and local knowledge of pressures.

The result is that while a score meets the minimum criteria as defined by the EPA assessment tool, in light of consistent issues with poor water quality, Dublin City Council cannot designate North Bull Wall as an EU identified bathing area at this time. Instead, it is appropriate to continue to categorise the location as 'other monitored water'.

Therefore Dublin City Council will continue to take samples at this location on a regular basis, on at least 20 separate occasions during the Bathing Season (1st June to 15th September) and approximately twice a month thereafter. Analysis results will be available on the City Council's website for all samples, in a cabinet located on North Bull Wall, and on the EPA website (www.beaches.ie).

It must be emphasised that bathers should not assume that an area used for bathing, that is *not* a designated bathing water under the 2008 Regulations, is suitable for bathing simply on the basis that it is recognised as an 'other monitored water.'

Signed: Date: **27th October 2023**

James Nolan
Executive Manager (Engineering)