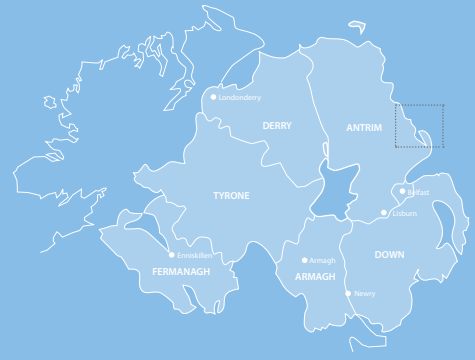


Bathing Water Profile

Brown's Bay

May 2023



Sustainability at the heart of a living, working, active landscape valued by everyone.



Department of
**Agriculture, Environment
and Rural Affairs**

www.daera-ni.gov.uk



Map of Northern Ireland's Bathing Waters 2023



Background to Bathing Water Profiles

This is one of a series of profiles which cover all 26 of Northern Ireland's identified bathing waters. These are the most popular of our bathing areas and have been 'identified' as part of a network of European bathing sites.

The purpose of the bathing water profile is to help the bather to make an informed choice before bathing. The profile gives information on the physical, geographical and hydrological characteristics of the bathing water while assessing the possible pollution risk at the site. Bathing water profiles are a requirement, under the Quality of Bathing Water Regulations (Northern Ireland) 2008 (www.daera-ni.gov.uk/articles/bathing-water-quality). It is our intention to review the profiles annually.

All of our bathing waters are monitored during the bathing season. In Northern Ireland the season runs between 1st June and 15th September each year. Bathing waters are tested for bacteria which indicate faecal contamination. Results are published weekly to bathing water operators and to the NI Direct web site (www.nidirect.gov.uk/articles/bathing-water-quality). Waters are then classified annually as Excellent, Good, Sufficient or Poor, as defined by the Quality of Bathing Water Regulations (Northern Ireland) 2008.

Key Information

Bathing Water Name	Brown's Bay Bathing Water
Location	UK/Northern Ireland/County Antrim/Antrim Coast
Year of identification	1988
Local council area	Mid and East Antrim Borough Council
Bathing Water Operator	Mid and East Antrim Borough Council
Description of bathing beach	Sand, approximately 0.6 kilometre in length, bounded by rocks at each end
Monitoring Point	Middle of bathing water, D43630291 (Map 2)

A Description of Brown's Bay bathing water and the surrounding area

Brown's Bay bathing water is located on Islandmagee peninsula, at the most northerly point of Larne Lough. The bathing beach is approximately 0.6 km in length. It is comprised mainly of sand with large rocks and boulders at each end. There is a small sand dune system to the back of the beach and this runs the entire length. Behind the sand dunes a small grassy area leads on to the main road.

A facilities area is located on the other side of the main road containing public toilets and car parking availability. There are several private houses adjacent to the western end of the bathing water.

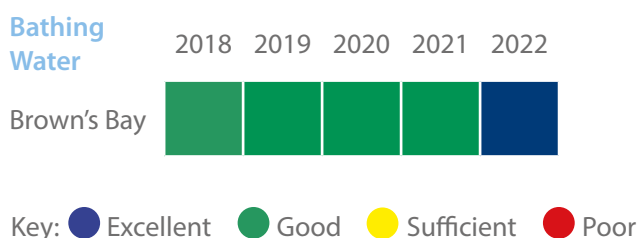
The catchment area for this bathing water consists of improved grassland with arable horticulture and grasses. The geology of this region varies, with the Islandmagee / Larne Lough area incorporating igneous and sedimentary rocks of the Triassic and Tertiary age. The Larne Ridgeland is generally cretaceous greensands, limestone or Tertiary basalts.

A small river flows out to sea near the centre of the bathing area. This river flows mainly through farmland. However, there are also a number of private residences within the catchment. There are no towns or villages in the catchment although the town and port of Larne are approximately 2 km to the west, across the mouth of Larne Lough.

Bathing Water Quality at Brown's Bay

Brown's Bay bathing water was identified in 1988. Monitoring and reporting is carried out by DAERA Marine and Fisheries Division.

Brown's Bay Bathing Water Quality 2018-2022



Bathing waters are classified as Excellent, Good, Sufficient or Poor (see above). This classification is based on a statistical assessment of results from the last four years.

All of Northern Ireland's water quality objectives are set out in the River Basin Management Plan (www.daera-ni.gov.uk/topics/water/river-basin-management). Within the Programme of Measures in the River Basin Management Plan there are a number of measures which relate directly to the protection of bathing waters.

Potential sources of pollution and measures to reduce the impact at the bathing water

It should be noted that weekly classification at Brown's Bay bathing water is generally Excellent or Good.

The potential sources of pollution have been split into three main categories. These are waste water (sewage) treatment works discharges, waste water systems in urban areas and rural source pollution, including agriculture.

DAERA Marine and Fisheries Division work with NIEA and other departments to identify and resolve sources of pollution.

Waste Water

A major waste water treatment facility for the greater Larne area was commissioned in 2008 with a treated effluent discharge approximately 3 km to the west of the Brown's Bay bathing water. The waste water receives tertiary treatment with UV disinfection as the final process. There are also two small wastewater treatment works in the vicinity of Brown's Bay bathing water.

Although Brown's Bay is in a rural setting, it is very popular with day visitors during the summer months. Within Brown's Bay catchment area there are a number of private septic tanks and these have the potential to contribute to diffuse pollution. In the event of very heavy rainfall a collection system may not be able to deal with all the flow received. A portion of the contents of the collection system may overflow to a waterway under storm conditions. [This is why there is general advice not to bathe during or up to 2 days after such rain.](#)

The municipal collection and treatment of waste water has the potential to cause pollution because all collection systems must be designed to overflow in periods of extreme wet weather or following failure of the pump system. If systems are not designed in that way, then sewers may overflow into residential areas. Within the wider Larne and Islandmagee area there are combined sewer overflows (CSO), emergency overflows and wastewater pumping stations with associated emergency overflows.

In order to reduce the potential for pollution in the water environment from these systems NIEA requires that all current and proposed systems meet the requirements of the Urban Waste Water Treatment Regulations (Northern Ireland) 2007 (www.daera-ni.gov.uk/articles/urban-waste-water) and the

Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017.

During the expansion of any urban area, there is the potential for misconnections between the sewer system and surface drains, which may allow untreated wastewater to enter the water environment. When these become apparent, NIEA pursues them as pollution incidents.

A further measure in tackling urban pollution is through the use of sustainable urban drainage systems (SUDS), which NIEA encourages through its SUDS Strategy. Other measures include compliance with the Northern Ireland Water Order 1999 and implementation of Pollution Prevention Guidelines (<https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/>).

Agriculture and rural activities

Agriculture accounts for approximately 70% of the total Northern Ireland land area of 1.4 million hectares, and characterises much of the rural landscape. The agricultural industry is predominately grass based, with grazing livestock accounting for more than two-thirds of the gross industry output. Agriculture and the agri-food sector makes a very important contribution to the economy of Northern Ireland.

The most significant pressures on water quality are from the release of the nutrients phosphorous and nitrogen from agricultural sources. Agriculture can also give rise to sediment entering waters due to the damage caused to river banks and lake shores by livestock trampling and from other types of land disturbance e.g. ploughing and overgrazing. Agricultural activities are also a source of certain microbial vectors causing human illnesses including cryptosporidium and e-coli bacteria which can be an issue in bathing water areas. Other pressures from agriculture include the contamination of waters from hazardous chemicals, such as pesticides and sheep dip.

The Nitrates Action Programme and the Phosphorous Regulations have been revised and combined into the **Nutrients Action Programme (NAP) 2019-2022**. The Nutrient Action Programme (Amendment) Regulations (Northern Ireland) 2019 came into operation on 15 October 2019. The revised NAP has new measures to promote more efficient nutrient management and best practice.

The **Knowledge Advisory Service (KAS)** was set up in April 2018 as a single advisory service aimed at supporting Northern Ireland's farm and food businesses.

The **Environmental Farming Scheme (EFS)** is DAERA's agri-environment scheme under the Rural Development Programme 2014-2022. EFS has been designed to address specific environmental needs, primarily relating to biodiversity and water.

A **Soil Nutrient Health Scheme (SNHS)** for Northern Ireland was launched in 2022 and will run for 4 years. The Scheme is a soil sampling and carbon analysis scheme that will provide farmers with nutrient levels in their soils across all fields as well as providing an accurate estimate of the carbon stored in the soils, hedgerows and trees on their farms. The scheme will benefit farmers in management of their nutrient applications which will help improve water quality and manage agricultural land more effectively.

The catchment area of the Brown's Bay bathing water has a significant amount of improved grassland with arable horticulture and grasses.

Other potential sources of pollution

Other sources of pollution exist in this bathing area, these include;

- Dogs
- Horses
- Litter
- Fly tipping

All issues have been addressed through local signage to ensure that these controllable causes of pollution do not affect the bacteria content of the water.

NIEA have compiled a River Basin Management Plan, which takes an integrated approach to the protection, improvement and sustainable use of the water environment. This plan identifies existing pollution reduction programmes and additional measures which could be implemented to maintain or improve the water quality.

Brown's Bay is located in the North Eastern River Basin District. A draft of the 2021-2027 river basin management plan can be found here:

www.daera-ni.gov.uk/sites/default/files/consultations/daera/Draft%203rd%20cycle%20River%20Basin%20Management%20Plan%20for%20Northern%20Ireland%202021-2027_0.PDF

Pollution Events

From 2019-2022 there were three confirmed incidents of pollution within 3kms of the bathing water.

What should I do if I see a pollution incident?

If you see a water pollution incident, you should immediately contact NIEA through the Emergency Water Pollution Hotline, which is operated 24 hours.

Phone: 0800 807060

When a pollution incident is reported or pollution is found to be affecting the water quality of a bathing water, an immediate investigation is instigated. All possible sources of pollution are checked. In addition, a resample will be collected to monitor whether the beach is still polluted. Bathing waters may be closed (by local authority or controlling body) until the water quality has improved and levels of bacteria are within mandatory standards.

Macro-Algae, Phytoplankton and Cyanobacteria (blue-green algae)

Brown's Bay bathing water is not at risk of a proliferation of macro-algae, phytoplankton or cyanobacteria (blue/green algae).

Daily water quality forecasts

There is presently no facility to predict bathing water quality on a daily basis. However, the general advice remains: do not bathe during or for up to 2 days after heavy rainfall events.

Contact details

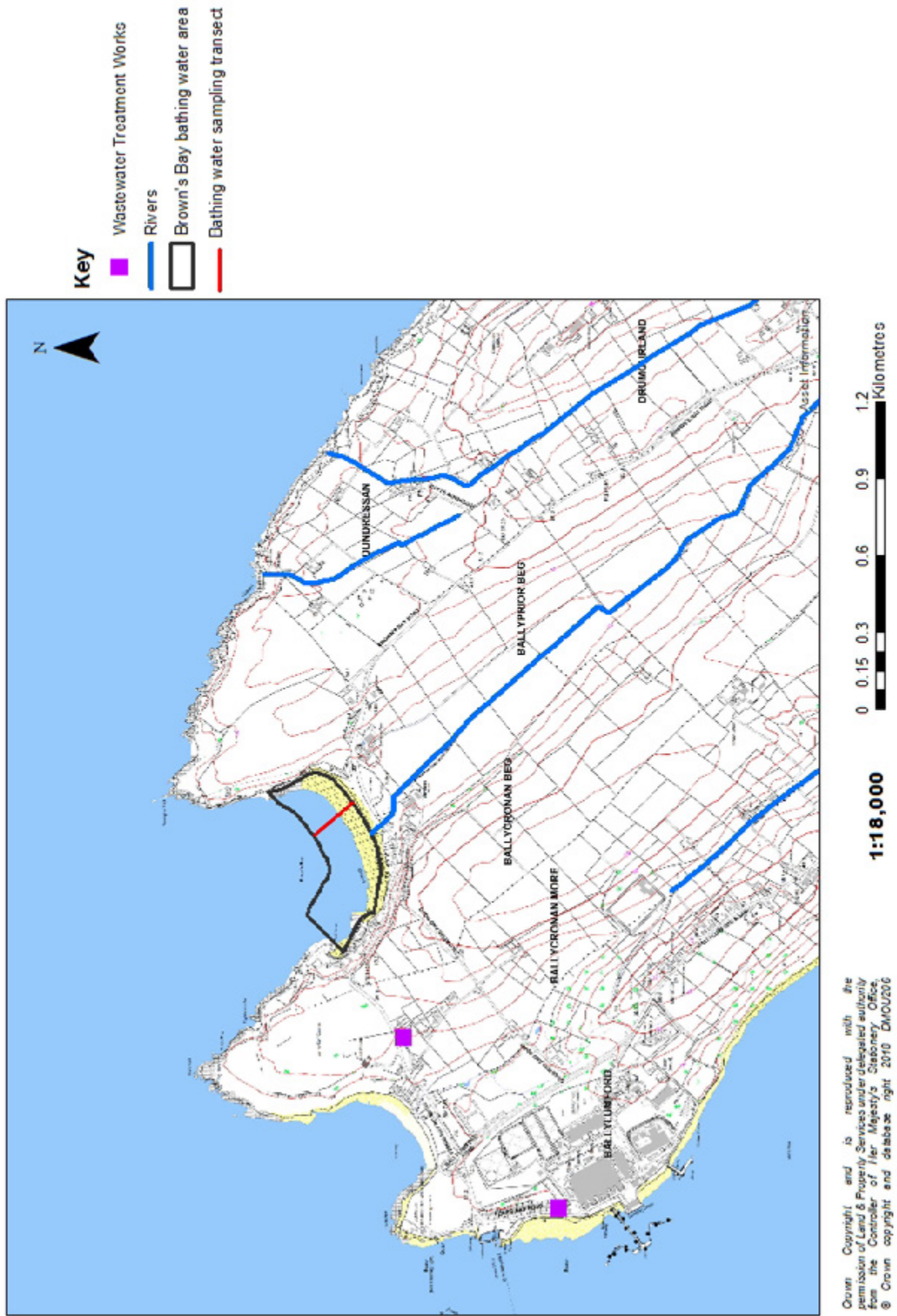
For general information about bathing waters:

DAERA	Marine and Fisheries Division 17 Antrim Road Tonagh Lisburn, BT28 3AL Email: Marine.InfoRequests@daera-ni.gov.uk Phone: 028 9262 3244
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Water Pollution 24hr Hotline	Phone: 0800 807060
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Local Authority	Mid and East Antrim Borough Council Head Office The Braid 1-29 Bridge Street Ballymena BT43 5EJ Phone: 0300 124 5000
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Map 1
Brown's Bay Bathing Water -
Potential Pollution Sources



Map 2
Brown's Bay Bathing Water -
EC Bathing Water Sample Location



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Department of Agriculture, Environment and
Rural Affairs
Marine and Fisheries Division
17 Antrim Road
Tonagh
Lisburn
BT28 3AL

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