

Bathing Water Profile

Benone (Magilligan)

May 2022



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 2022



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	Benone (Magilligan) Bathing Water
Location	UK/Northern Ireland/County Londonderry/North Coast
Year of identification	1988
Local council area	Causeway Coast and Glens Borough Council
Bathing Water Operator	Causeway Coast and Glens Borough Council
Description of bathing beach	Sand, 4 kilometres in length, contiguous with Downhill Bathing Water
Monitoring Point	End of access road onto beach, C7170 3625 (Map 2)

A Description of Benone bathing water and the surrounding area

Benone is a very popular bathing water and is located near the western end of Northern Ireland's north coast. The beach is contiguous with Downhill bathing water, having a combined length of approximately four kilometres.

The bathing beach is comprised entirely of sand backing onto an extensive well established sand dune system. The beach is the focus of an expansive tourist complex with many facilities provided in the vicinity; these include a caravan park and camping facilities.

The immediate catchment for this bathing water is rural and the main land use agriculture. The catchment consists of improved grassland and arable horticulture. Neutral grass, coniferous forest, acid grass and open dwarf are also present in this area. The main geology in the area is igneous and sedimentary rock of the Triassic, Jurassic and Tertiary age. Within this catchment there is no significant urban settlement. The nearest urban area is the Benone caravan park and tourist complex, which is very busy during the summer months. Castlerock is approximately 5 km away to the east.

There is one minor river, the Umbra, which flows across Benone bathing beach. This river flows through a rural environment and therefore might be influenced by agriculture. Because of the sandy substrate, the exact point where the river flows onto

the beach varies from time to time. Another minor river flows out at the adjacent Downhill beach, this may affect the water quality at Benone during periods of heavy rainfall.

As Benone is situated in a very rural part of Northern Ireland there is no major influence from residential areas.

Bathing Water Quality at Benone

Benone bathing water was identified in 1988. Monitoring and reporting is carried out by DAERA Marine and Fisheries Division.

Benone Bathing Water Quality 2017-2021



Key: ● Excellent ● Good ● Sufficient ● Poor

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 Benone bathing water is generally excellent.

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

Sewage from the Benone area is treated at the new Magilligan Point WWTW which discharges to the Atlantic Ocean almost 6kms west of the bathing water. This new works treats sewage from Drumavalley, Aughil, MoD Magilligan and HMP Magilligan. Effluent receives tertiary treatment in the form of year round bacterial reduction. There is one small waste water treatment works in the vicinity of Benone bathing water.

Benone beach does not have a large urban area and therefore may not be affected by this source of diffuse pollution. However, the caravan park and toilet facilities have the potential to affect water quality during periods of prolonged or heavy rainfall. In the event of very heavy rainfall a collection system may not be able to deal with all of 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.](#) However, the entire area is sand and it is extremely rare for any surface water to run onto the beach.

The municipal collection and treatment of waste water has the potential to cause pollution because all combined collection systems must be designed to overflow in periods of extreme wet weather or following failure of the system. If systems are not designed in that way, then sewers may overflow into residential areas. Within the Benone area there are wastewater pumping stations with associated overflows as shown on Map 1.

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 (www.netregs.org.uk/library_of_topics/pollution_prevention_guides.aspx).

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 has been 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 managing agricultural land more effectively.

The catchment area of Benone has a significant amount of improved grassland and arable horticulture.

Septic tanks also have the potential to cause localised pollution, but there is no evidence to suggest that this is impacting Benone bathing water.

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.

Benone is located in the North Western 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 2018-2021 there was one confirmed pollution incident in the Benone area.

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)

Benone 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

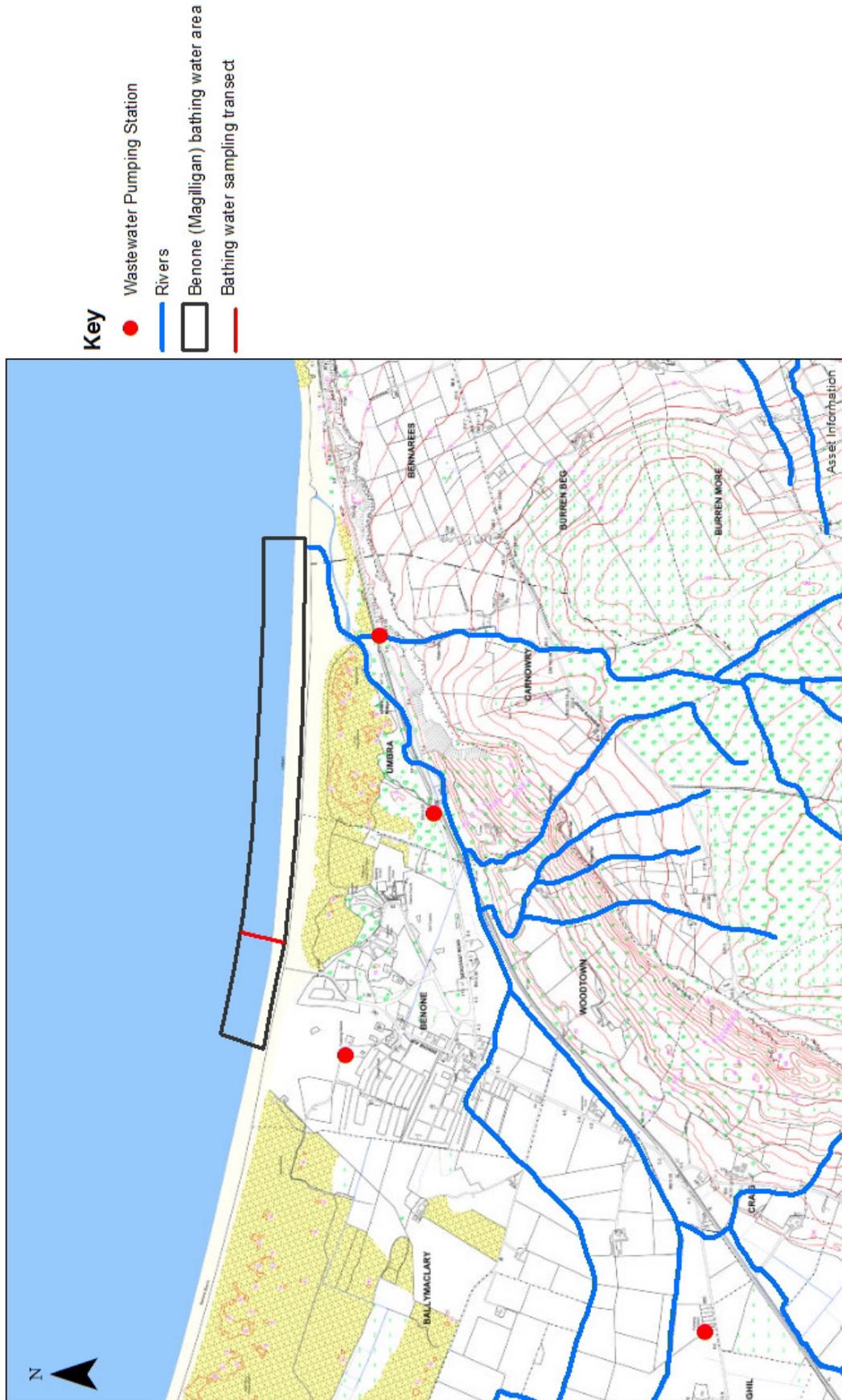
For general information about bathing waters:

DAERA Marine and Fisheries Division
17 Antrim Road
Tonagh
Lisburn, BT28 3AL
Email: Marine.InfoRequests@daera-ni.gov.uk
Phone: 028 9262 3244

Water Pollution 24hr Hotline Phone: 0800 807060

Local Authority Causeway Coast and Glens Borough Council
7 Connell Street
Limavady, BT49 0HA
Phone: 028 777 22226

Map 1
Benone (Magilligan) Bathing Water -
Potential Pollution Sources



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Map 2
Benone (Magilligan) Bathing Water -
EC Bathing Water Sample Location



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