# **Bathing Water Profile**

# Carnlough

May 2022



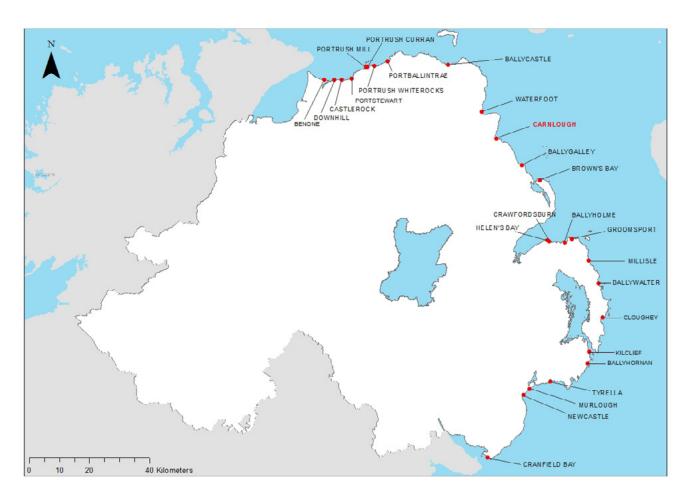


Sustainability at the heart of a living, working, active landscape valued by everyone.





#### 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 (<a href="https://www.daera-ni.gov.uk/articles/bathing-water-quality">www.daera-ni.gov.uk/articles/bathing-water-quality</a>). 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** Carnlough Bathing Water

Location UK/Northern Ireland/County
Antrim/Antrim Coast

Year of identification 2006

Local council area Mid and East Antrim Borough

Council

Bathing Water Mid and East Antrim Borough

Operator Council

**Description of bathing beach**Mainly sand with some rocky outcrops and pebbles,1.5 kilometres in length.

Monitoring Point Northern end of bathing

water, D28601737 (Map 2)

# A Description of Carnlough bathing water and the surrounding area

Carnlough bathing water is a popular visitor destination located on the eastern coast of Co Antrim. The beach is approximately 1.5 km long and is composed mainly of sand, although there are rocks and pebbles at both the northern and southern ends.

Most of the bathing water is backed by a sea wall and the public road. The southern end is backed by open vegetation and grass. The small coastal village of Carnlough (approx population 1500) surrounds the northern half of the beach. A small harbour is located just to the north of the bathing water. There is a car park and recreation facilities between the harbour and the beach. The southern end of the beach area contains fewer houses, a picnic area, car park and children's play area.

There are two caravan parks in the vicinity, at each end of the bathing area, which cater for the influx of holidaymakers during the summer.

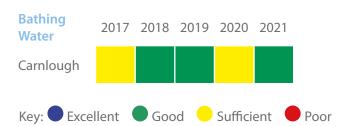
Two rivers flow into the bathing area: the Carnlough River at the northern end and the Glencloy River, towards the southern end.

The land use within the catchment area surrounding Carnlough bathing water is mainly improved grassland and neutral grass with dwarf heath and other grass types. The geology of this region contains igneous and sedimentary rock of Triassic to Tertiary age with cretaceous greensands and limestones of tertiary basalt.

## **Bathing Water Quality at Carnlough**

Carnlough bathing water was identified in 2006. Monitoring and reporting is carried out by DAERA Marine and Fisheries Division.

#### Carnlough Bathing Water Quality 2017-2021



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 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 Carnlough 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.

Carnlough bathing water was identified as being at risk from likely water pollution based on summary analysis of bathing water results, monitoring of associated rivers and some investigative monitoring. Investigative work has been carried out in the catchment of Carnlough bathing water over the last number of years.

A number of minor issues were identified with NI Water sewerage systems and remedial work was carried out to rectify these.

DAERA Marine and Fisheries Division continue to work with both NIEA and other Departments to identify and resolve further sources of contamination.

#### **Waste Water**

Wastewater from Carnlough is pumped to Glenarm where it is discharged through a screened long sea outfall more than 4 km to the south east of the bathing water.

The urbanisation associated with the village of Carnlough, is a potential source of pollution, especially during and after periods of prolonged or heavy rainfall. 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 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 Carnlough bathing area there are combined sewer overflows (CSO), emergency overflows and waste water pumping stations with associated emergency 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 (<u>www.daera-ni.gov.uk/articles/urban-waste-water</u>) 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 Carnlough bathing water, through which the Carnlough and Glencloy rivers flow, has a significant amount of improved grassland.

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

Carnlough is located in the North Eastern River Basin District. A draft of the 2021-2027 river basin management plan can be found here: <a href="https://www.daerani.gov.uk/sites/default/files/consultations/daera/">www.daerani.gov.uk/sites/default/files/consultations/daera/</a> Draft%203rd%20cycle%20River%20Basin%20 Management%20Plan%20for%20Northern%20 Ireland%202021-2027 0.PDF

#### **Pollution events**

In 2018-2021 there were four confirmed pollution incidents 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)

Carnlough 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 Mid and East Antrim Borough

Council Head Office The Braid

1-29 Bridge Street

Ballymena BT43 5EJ

Phone: 0300 124 5000

1 Kilometres

1:16,000

Bathing water sampling transect Carnlough bathing water area Wastewater Pumping Station Combined sewer overflow - Rivers Key 0.75 0.5 0 0.1250.25 WILL TENEMENT DRUMNACOLE Orown Copynight and is reproduced with the memoriasin of cland & Property Services under delegated authority from the Controller of Her Majesty's Stationery Office. GORTCARNEY SH NORTH

**Potential Pollution Sources** Carnlough Bathing Water -

Map 1

Camlough Bathing water area

Bathing water sampling transect 0.8 Kilometers ΚĒΥ 0.4 0.2 0.1 1:8,000 © Crown copyright and database right 2013 DMOU 206

Map 2
Carnlough Bathing Water EC Bathing Water Sample Location

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

Water Pollution Hotline: 0800 807060



