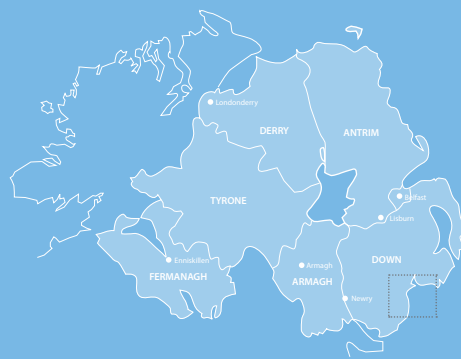


Department of the Environment  
Marine Division

Bathing Water Profile

# Murlough, County Down

May 2015



## Map of Northern Ireland's Bathing Waters 2015



## Background to Bathing Water Profiles

This is one of a series of profiles which cover all 23 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 new European requirement, under the 2006 revised Bathing Waters Directive ([www.doeni.gov.uk/marine-home](http://www.doeni.gov.uk/marine-home)). It is our intention to review the profiles annually.

All of our bathing waters are monitored on 20 occasions 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 Department of the Environment (DOE) web site. Waters are then classified annually as Excellent, Good or Poor, as defined by the European Bathing Water Directive, 1976.

In effect, this profile reflects a transition from the 1976 Directive to the 2006 Directive which must be fully implemented by 2015.



## Key Information

<b>Bathing Water Name</b>	Murlough Bathing Water
<b>EU bathing water ID number</b>	UKNO3_54100
<b>Location</b>	UK/Northern Ireland/County Down/South Down Coast
<b>Year of identification</b>	2006
<b>Local council area</b>	Newry, Mourne and Down District Council
<b>Bathing Water Operator</b>	Newry, Mourne and Down District Council
<b>Description of bathing beach</b>	Sand, approximately 3 km in length, contiguous with Newcastle Bathing Water
<b>Monitoring Point</b>	Near the middle of the bathing water, J40043344 (Map 2)

## A Description of Murlough bathing water and the surrounding area

Murlough is on the outskirts of Newcastle and is a popular tourist destination located on the South Down coast of Northern Ireland. The beach is comprised of sand and is approximately 3 km in length. It is contiguous with Newcastle Bathing Water giving a total length of approximately 5.5 km.

Murlough bathing area is backed by extensive sand dunes. These are the Murlough Nature Reserve; a dynamic sand dune system over 5000 years old, owned and managed by the National Trust. The beach and sand dunes are within the Murlough Special Area for Conservation and are also designated an Area of Special Scientific Interest. The beach is sand but also has a steep shelving pebbled area between the high tide line and the sand dunes. Further north of the bathing area is the entrance to inner Dundrum Bay. Inland are several caravan parks, car parking, picnic areas, public toilets and the main road leading into Newcastle, which is approximately 2 km further south. The entire area is within the Mournes and Slieve Croob Area of Outstanding Natural Beauty.

The beach and bathing water are managed by Newry, Mourne and Down District Council in close partnership with The National Trust, who own and manage the adjoining national nature reserve. There are both public and National Trust car parks and toilets at the

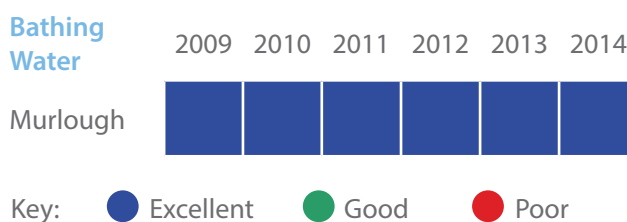
Newcastle to Dundrum road. The beach and bathing water are accessed by a short walk through or around the sand dunes.

The majority land use within the catchment area surrounding this bathing water is improved grassland with smaller areas of neutral grass, acid grass, arable horticulture, coniferous woodland and open dwarf shrub heathland. The geology of the region close to Dundrum Bay is tertiary geology with various intrusives and lower Palaeozoic (Silurian) of the Hawick group.

## Bathing Water Quality History at Murlough

Murlough bathing water was identified in 2006. Monitoring and reporting is carried out by DOE Marine Division. Its history of compliance is displayed below and can also be viewed at [www.doeni.gov.uk/marine-home](http://www.doeni.gov.uk/marine-home)

### Murlough Bathing Water Quality 2009-2014



The 1976 Directive classified bathing waters as Excellent, Good or Poor. In 2006 a new revised Bathing Water Directive replaced the 1976 Directive. Under a new system of bacterial monitoring bathing waters will, from 2015, be judged against more stringent standards and classified as Excellent, Good, Sufficient and Poor. Using the data collated over the past years, predictions have been made of the new water quality classification and can be seen at [www.doeni.gov.uk](http://www.doeni.gov.uk). This new system of classification will become 'live' in 2015. DOE Marine Division will continue to display both classifications up until that time, although the old classification results will be based on equivalence calculations from the new measurement methodologies, agreed at a UK level.

All of Northern Ireland's water quality objectives are set out in River Basin Management Plans ([www.doeni.gov.uk](http://www.doeni.gov.uk)) and detailed management activities are published within Local Management Area Plans (which can be viewed through the same link). These encompass agreed overall objectives for water quality including the quality of identified bathing waters.

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

It should be noted that weekly classification at Murlough 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.

DOE Marine Division work with NIEA and other Departments to identify and resolve sources of pollution.

## Are there Waste Water Treatment Works in the vicinity of Murlough beach?

There are no discharges to the Murlough bathing water. The wider Newcastle area, including the Murlough area, is served by a combined sewerage system which delivers waste waters to a treatment facility adjacent to Newcastle harbour. Waste waters receive secondary treatment with bacterial reduction throughout the bathing season. The treated effluent is discharged some 300m from the shoreline, approximately 4 km south west of the Murlough bathing water (Map 1). There is also a small waste water treatment works serving the Dundrum area which discharges secondary treated effluent to inner Dundrum Bay some 2km from the Murlough bathing water.

## Are there other risks of pollution from waste water systems?

Newcastle town and the Murlough / Dundrum area are popular seaside locations attracting large numbers of visitors during the summer season. This urbanisation 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 collection systems must be designed to overflow in periods of extreme wet weather or following failure of the pumped system. If systems are not designed in

that way, then sewers may overflow into residential areas. Within the wider Murlough area (including Newcastle and Dundrum) there are combined sewer overflows (CSO), emergency overflows and sewage pumping stations (SPS) 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 Wastewater Treatment Directive ([www.doeni.gov.uk/niea/uwwt\\_gid2\\_2002.doc](http://www.doeni.gov.uk/niea/uwwt_gid2_2002.doc)) and the Water Framework Directive (WFD) ([www.doeni.gov.uk/niea/wfd](http://www.doeni.gov.uk/niea/wfd)).

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.doeni.gov.uk/niea/potential-polluters.htm#vehiclewashoperators](http://www.doeni.gov.uk/niea/potential-polluters.htm#vehiclewashoperators)).

## Are there risks from agriculture and rural activities?

Agriculture is a major industry in Northern Ireland. The wider catchment area of Murlough bathing water has a significant amount of improved grassland. Although there are no rivers flowing directly onto the bathing area it is close to the entrance to Dundrum Bay which is the end point for a number of rivers flowing through the catchment. Areas within the catchment where agriculture is the dominant land use may be subjected to inputs from chemical fertilisers and organic wastes which can contribute to pollution problems in the surrounding area. Prolonged periods of rainfall can cause surface runoff of these organic wastes, such as animal slurries, contributing to the bacteria content in the water environment.

The Nitrates Action Programme Regulations (Northern Ireland) 2010 (previously the Nitrates Action Programme Regulations (Northern Ireland) 2006) and the Phosphorus (Use in Agriculture) Regulations (Northern Ireland) 2006 were introduced to improve the use of nutrients on farms and as a result improve water quality throughout Northern Ireland. The effectiveness of these regulations is continually reviewed through monitoring, enforcement and education.

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

## Are there 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 River Basin Management Plans, these take an integrated approach to the protection, improvement and sustainable use of the water environment. Each plan identifies existing pollution reduction programmes and additional measures which could be implemented to maintain or improve the water quality.

Murlough is located in the North Eastern River Basin Management Plan within the South Down local management plan - further details can be found at [www.doeni.gov.uk/niea/southdown\\_1ma\\_actionplan.pdf](http://www.doeni.gov.uk/niea/southdown_1ma_actionplan.pdf)

## Is there evidence of short term water pollution events at Murlough?

From 2011-2014 there were seventeen reported incidents of water pollution within 3kms of the bathing water. Thirteen incidents occurred during the bathing season and one resulted in a deterioration of bathing water quality.

## 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)

Murlough 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.

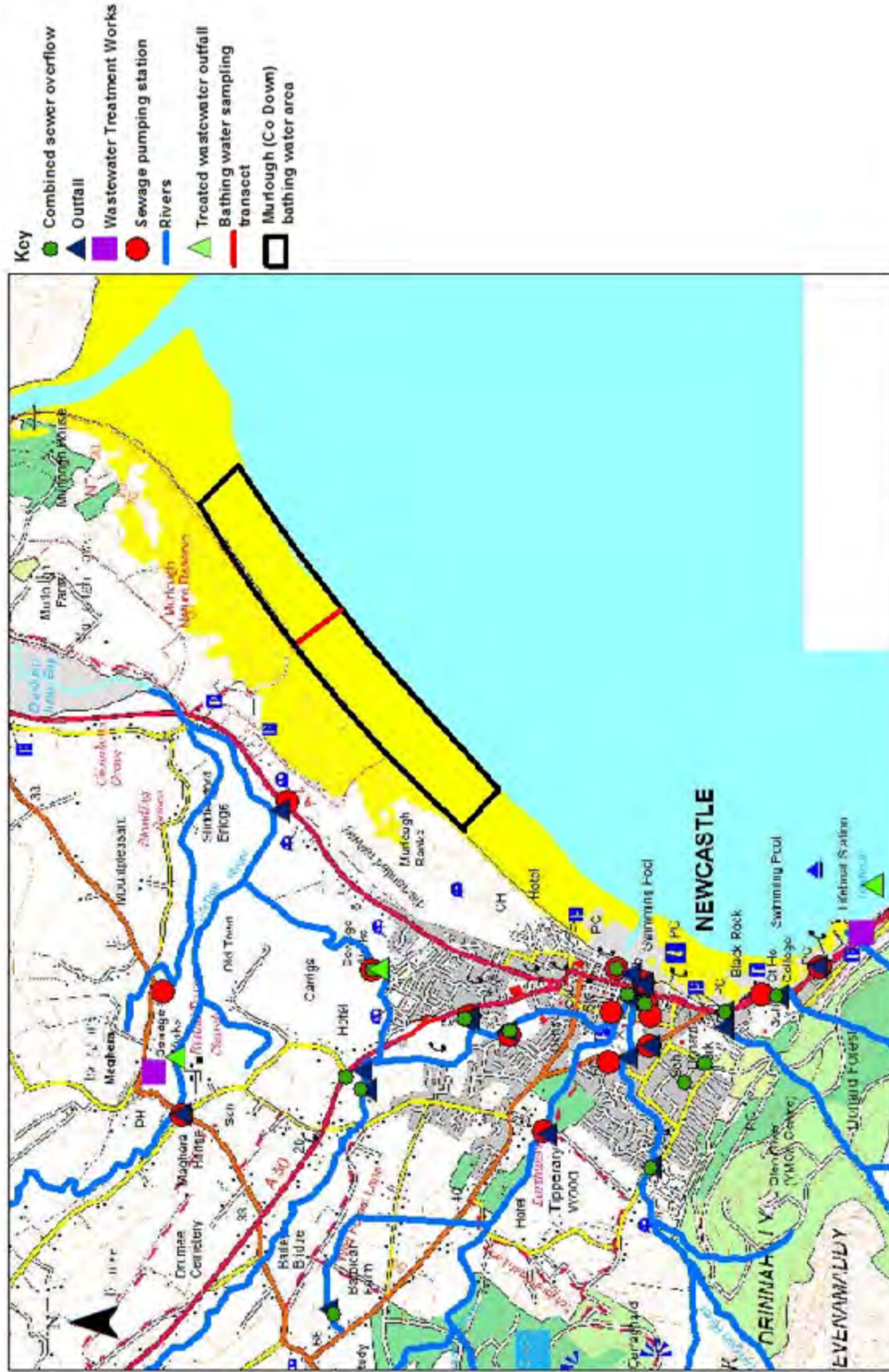
## Contact details

For general information about bathing waters:

<b>DOE</b>	Marine Division 17 Antrim Road Tonagh Lisburn, BT28 3AL  Email: MarineDivision. InfoRequests@doeni.gov.uk  Phone: 028 92623244
<b>Water Pollution 24hr Hotline</b>	Phone: 0800 807060
<b>Local Authority</b>	Newry, Mourne and Down District Council Downpatrick Office Downshire Civic Centre Downshire Estate Ardglass Road Downpatrick Co. Down BT30 6GQ  Phone: 0300 013 2233
<b>The National Trust Warden</b>	Phone: 028 4375 1467



Map 1  
Murlough Bathing Water -  
Potential Pollution Sources



Map 2  
Murlough Bathing Water -  
EC Bathing Water Sample Location





DOE Marine Division  
17 Antrim Road  
Tonagh  
Lisburn  
BT28 3AL

Water Pollution Hotline: 0800 807060  
Email: [MarineDivision.InfoRequests@doeni.gov.uk](mailto:MarineDivision.InfoRequests@doeni.gov.uk)