

Department of the Environment  
Marine Division

Bathing Water Profile

# Helen's Bay

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>	Helen's Bay Bathing Water
<b>EU bathing water ID number</b>	UKNO2_51400
<b>Location</b>	UK/Northern Ireland/County Down/North Down Coast
<b>Year of identification</b>	1993
<b>Local council area</b>	Ards and North Down Borough Council
<b>Bathing Water Operator</b>	Northern Ireland Environment Agency (NIEA)
<b>Description of bathing beach</b>	Sand, approximately 0.5 kilometres in length.
<b>Monitoring Point</b>	Western end of bathing water, J46038294 (Map 2)

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

Helen's Bay bathing water is a popular tourist destination located on the North Down coast close to Crawfordsburn Country Park. The beach is approximately 0.5 kilometres in length and comprised of sand with a rocky shoreline at either end. The bathing water is backed by a public pathway and golf course. The small village of Helen's Bay lies at the western end of the bathing water. (Map 1)

The catchment for this bathing area consists of improved grassland, arable farming and dense dwarf shrub heath.

There is one small river which has been culverted and flows across the bathing beach from the golf course. Upstream of the golf course, this river flows through a rural environment and through the village of Helen's Bay and may be influenced by urban and rural discharges.

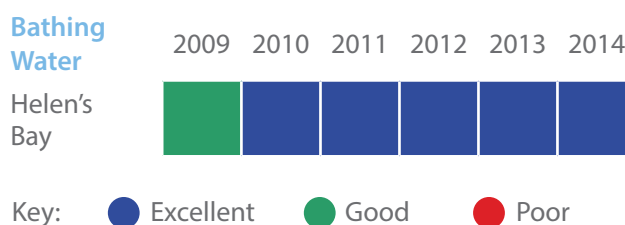
Helen's Bay has a population of approximately 1,400. The adjoining Crawfordsburn Country Park is to the east of the bathing water and the popular holiday resort and dormitory town of Bangor, population approximately 60,000, is less than 4km to the east. The foreshore and coastal strip area at Helen's Bay is part of the Crawfordsburn Country Park. This extensive park is owned and managed by Northern Ireland Environment Agency. It has extensive public

facilities including car parks, visitor centre, café and toilets. The park hosts a range of outdoor public events and is very popular for day visitors and school trips.

## Bathing Water Quality History at Helen's Bay

Helen's Bay bathing water was identified in 1993. 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).

### Helen's Bay 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/niea/wfd](http://www.doeni.gov.uk/niea/wfd)) 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 Helen's Bay bathing water is generally Good or 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.

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 Helen's Bay beach?

Approximately 2 km to the west is an offshore outfall discharging secondary treated effluent from the Seahill, Ballyrobert, Crawfordsburn and Helen's Bay area. 10 km to the east is the much larger outfall discharging treated waste water from the greater Bangor area. The secondary treated effluent is discharged some 600m offshore and receives UV disinfection during the bathing season.

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

The urbanisation associated with the village of Helen's Bay and the wider catchment, 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 the area 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 and the land cover within the catchment area of Helen's Bay bathing water is improved grassland, arable farming and dense dwarf shrub heath. 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 Helen's Bay 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.

Helen's Bay is located in the North Eastern River Basin Management Plan within the Belfast Lough local management plan - further details can be found at [www.doeni.gov.uk/niea/belfast-lough\\_lma\\_actionplan.pdf](http://www.doeni.gov.uk/niea/belfast-lough_lma_actionplan.pdf)

## Is there evidence of short term water pollution events at Helen's Bay?

From 2011-2014 there were twenty-one confirmed pollution incidents in the Helen's Bay area. Seven of these events occurred during the bathing season but none 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)

Helen'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:

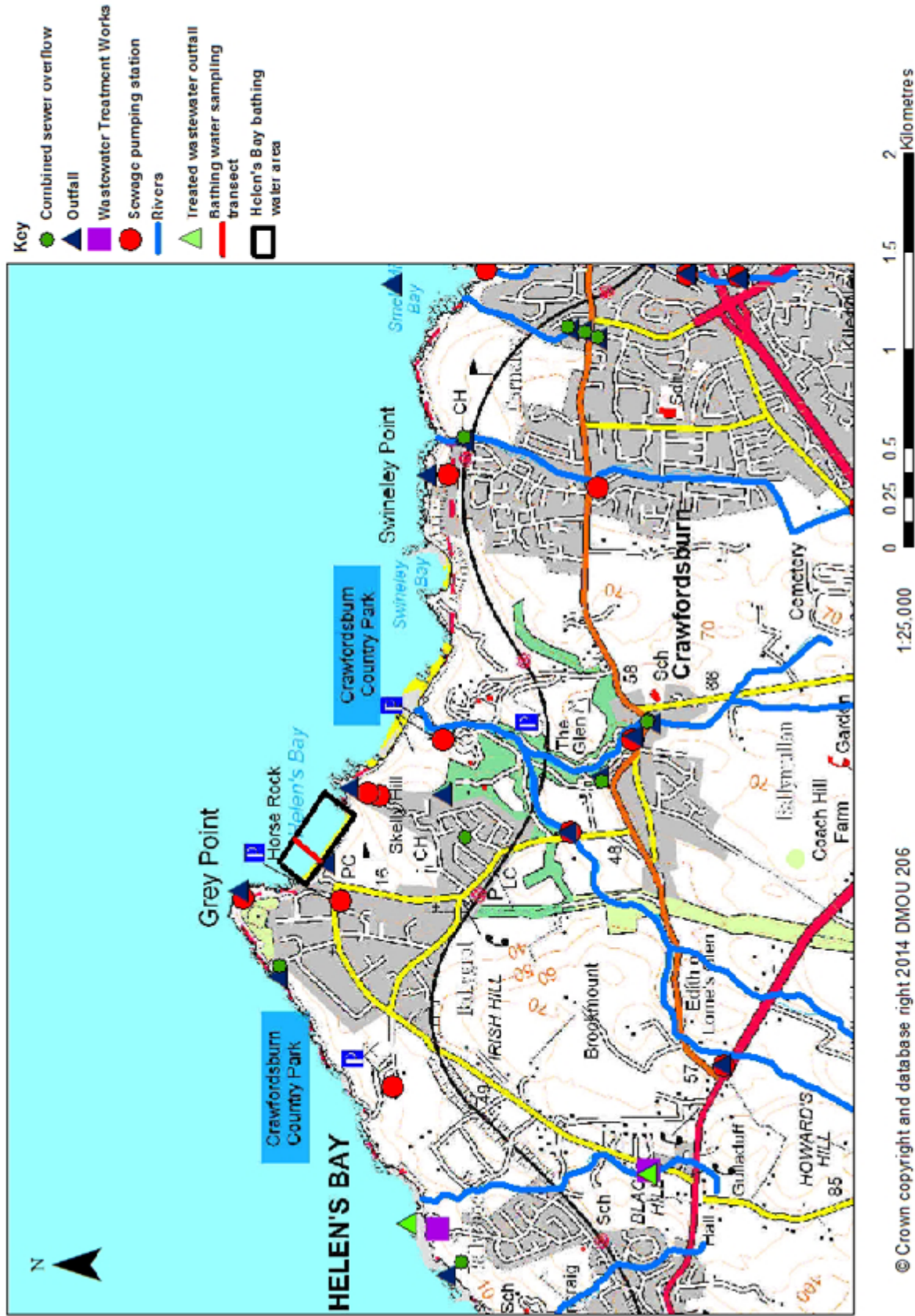
**DOE** Marine Division  
17 Antrim Road  
Tonagh  
Lisburn, BT28 3AL  
Email: MarineDivision.  
InfoRequests@doeni.gov.uk  
Phone: 028 9262 3244

**Water Pollution 24hr Hotline** Phone: 0800 807060

**Local Authority** Ards and North Down  
Borough Council  
Town Hall  
The Castle  
Bangor, BT20 4BT  
Phone 0300 013 3333

**Bathing Water Operator** Northern Ireland  
Environment Agency  
Crawfordsburn Country Park,  
Bridge Road South,  
Helen's Bay  
Co Down, BT19 1JT  
Phone: 028 9185 3621

Map 1  
Helen's Bay Bathing Water -  
Potential Pollution Sources



Map 2  
Helen's Bay 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)