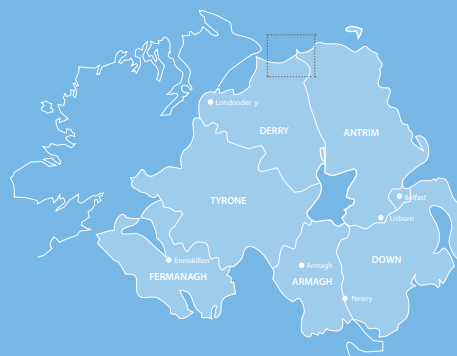


Northern Ireland
Environment Agency

Bathing Water Profile

Portstewart

May 2012

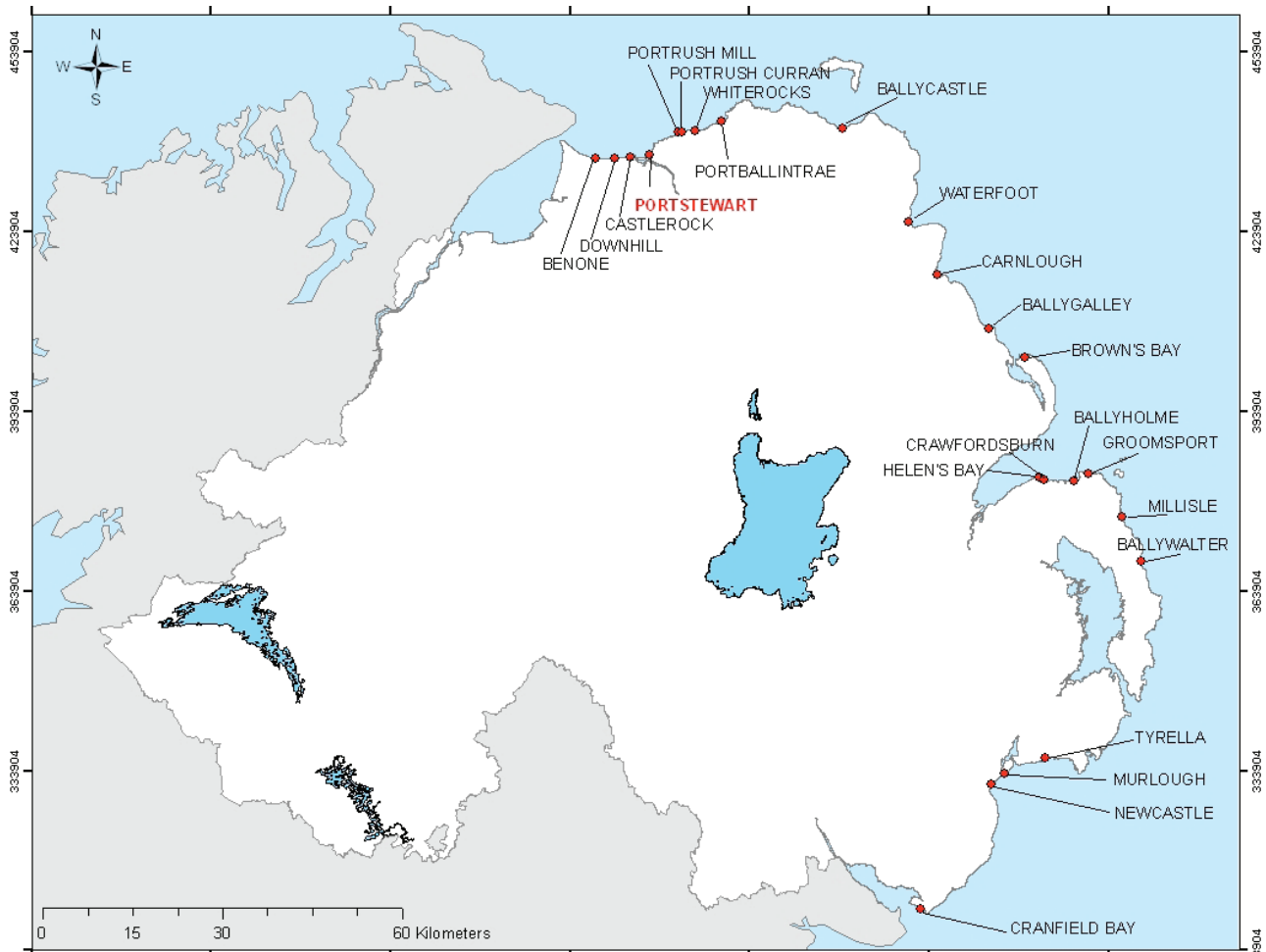


Department of the Environment
Northern Ireland
A Better Place to Live, Work and Invest



Northern Ireland
Environment
Agency

Map of Northern Ireland's Bathing Waters 2012



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/niea/new-bathing-water-directive). 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 NIEA 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

Bathing Water Name	Portstewart Bathing Water
EU bathing water ID number	UKNO4_48900
Location	UK/Northern Ireland/County Londonderry/North Coast (Map 1)
Year of identification	1993
Local council area	Coleraine Borough Council
Bathing Water Operator	The National Trust
Description of bathing beach	Sand, approximately 3 kilometres in length
Monitoring Point	At east end near main access point, C 8087 3677, (Map 2)

A Description of Portstewart Strand and the surrounding area

Portstewart bathing water is a popular tourist destination located on the north coast of Northern Ireland. The beach is approximately three kilometres in length and runs from the mouth of the River Bann (Barmouth) on the west side to cliffs on the east side.

The bathing beach is comprised entirely of sand backing onto an extensive sand dune system which runs the length of the beach. The dune system on the western side of the beach stretches back to the River Bann and on the eastern side the sand dunes overlap into a golf course and end at a rocky outcrop with minor cliffs leading to the town of Portstewart. The sand dunes have been designated an Area of Special Scientific Interest and are within the Bann Estuary Special Area of Conservation. The National Trust owns both the upper beach and a section of the approach road which is the principal access point. In addition the Trust, has a management lease from the Crown Estate, to manage the beach between the mean high & low water marks.

The catchment area for this bathing water consists of improved grassland with neutral grass and arable horticulture. The geology of this region is mainly tertiary basalts with underlying cretaceous and Jurassic.

The River Bann flows out to sea at the western end of the beach through the Barmouth (see Map 1). The River Bann flows primarily through rural areas

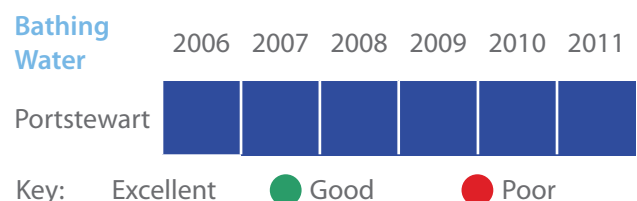
with agriculture being the main land use, draining some 40% of Northern Ireland. However it also flows through several towns including Coleraine, Portglenone and Toome.

The main area of population affecting the bathing area is the coastal town of Portstewart, which is located to the east. This town has a population of approximately 8,000, although during the summer season this is boosted by large numbers of holiday makers. The town of Coleraine (pop. 24,000) is located to the south of the bathing area. This town may not directly affect the bathing area but as the River Bann runs directly through the town it may therefore indirectly affect the water quality.

Bathing Water Quality History at Portstewart

Portstewart bathing water was identified in 1993. Monitoring and reporting is carried out by Northern Ireland Environment Agency (NIEA). Its history of compliance is displayed below and can also be viewed at www.doeni.gov.uk/niea/bathingqualityni

Portstewart Bathing Water Quality 2006-2011



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 or 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/niea/new-bathing-water-directive. This new system of classification will become 'live' in 2015. NIEA 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) 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 compliance at Portstewart 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.

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

There is a major new waste water treatment facility between Coleraine and Portstewart with an outfall approximately 1 km off the coast (see Map 1), to the east of Portstewart. This treated waste water outfall is approximately 4 km from the Portstewart bathing water. The new works was commissioned in 2007 and treats waste water from the wider Portrush, Portstewart and Coleraine area. The waste water receives a high standard (secondary) of treatment specifically to protect bathing waters in the area. Before construction, Northern Ireland Water (NIW) examined different options for treatment. These options were examined by computer modelling to ensure that all of the local bathing waters would be protected.

Are there other risks of pollution from waste water systems?

Portstewart town is a very popular seaside location 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 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.](#)

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 a pump system. If systems are not designed in that way, then sewers may overflow into residential areas. Within the Portstewart and Coleraine area there are combined sewer overflows, emergency overflows and sewage pumping stations with associated emergency overflows. All of these are shown on Map 1. NIW has in the past made significant improvements to the sewer system in this area.

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) and the Water Framework Directive (WFD) (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).

Are there risks from agriculture and rural activities?

Agriculture is a major industry in Northern Ireland and the wider catchment area inland of Portstewart has a significant amount of improved grassland containing neutral grass and arable horticulture. 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) 2006 and the Phosphorus (Use in Agriculture) Regulations (Northern Ireland) 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 Portstewart Strand.

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.

Portstewart is located in the North Eastern River Basin Management Plan within the Bush Local management plan- further details can be found at www.doeni.gov.uk/niea/bush_lma_actionplan.pdf.

Is there evidence of short term water pollution events at Portstewart?

Between 2008-2011 there were eleven confirmed water pollution events within the catchment of the bathing water, two of which were during the bathing seasons. None of these events 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)

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

Daily water quality forecasts

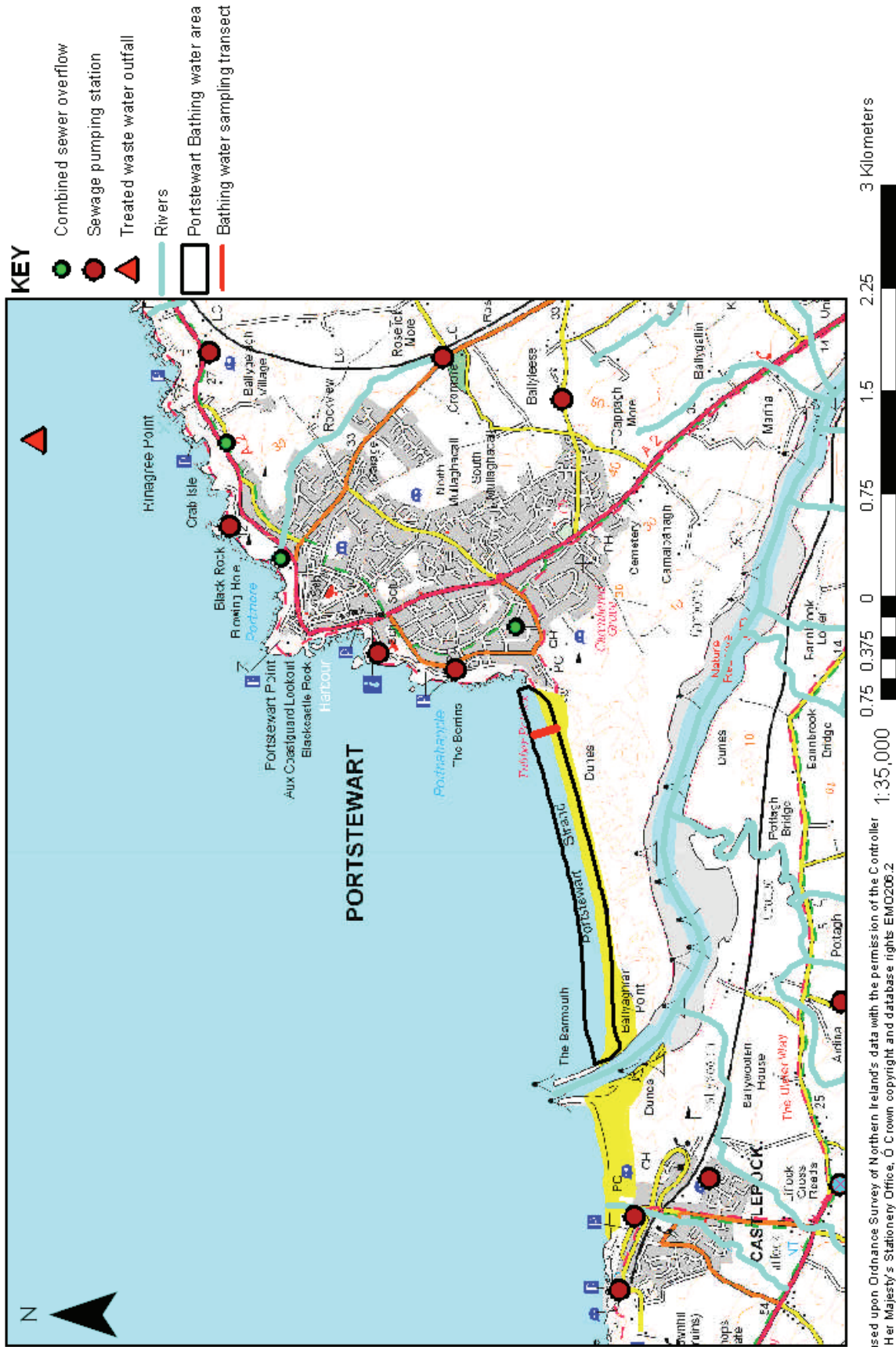
There is presently no facility to predict bathing water quality on a daily basis. However, the general advice remains: do not to bathe during or for up to 2 days after heavy rainfall events.

Contact details

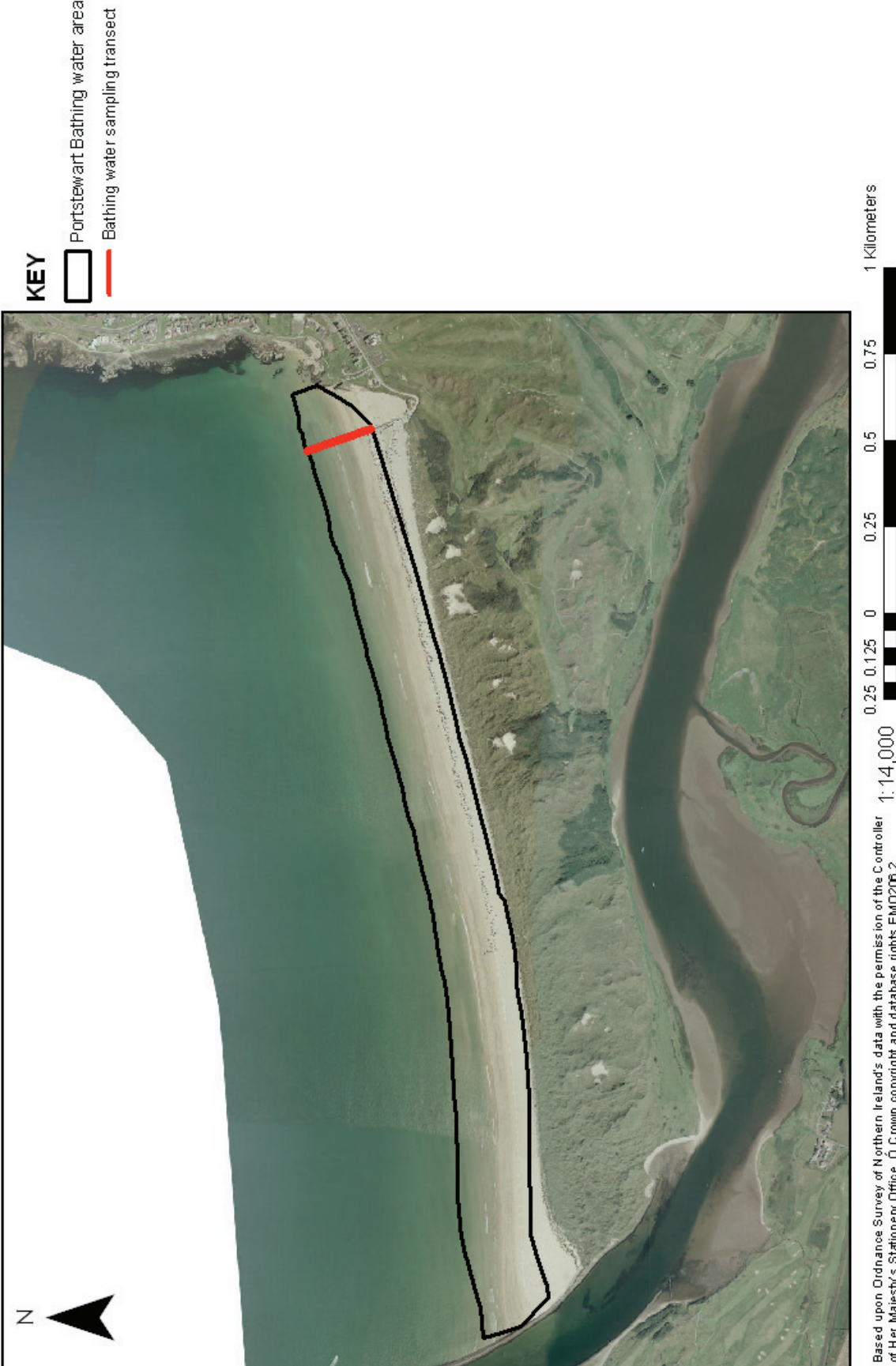
For general information about bathing waters:

NIEA	Water Management Unit General Enquiries 17 Antrim Road Tonagh Lisburn, BT28 3AL Email: WaterInfo@doeni.gov.uk
NIEA Water Quality	Phone: 028 9262 3100
NIEA Water Pollution Enquiries	Phone: 0800 807060
Local Authority	Coleraine Borough Council Cloonavin, 66 Portstewart Road Coleraine, BT52 1EY Phone: 028 70347034
Bathing Water Operator	The National Trust Portstewart Strand Visitor Centre 118 Strand Road Portstewart, BT55 7PG. Phone: 028 70836396

Map 1
Portstewart Bathing Water -
Potential Pollution Sources



Map 2
Portstewart Bathing Water -
EC Bathing Water Sample Location





Our aim is to protect, conserve and promote the natural environment and built heritage for the benefit of present and future generations.

Northern Ireland Environment Agency
Water Management Unit
17 Antrim Road
Tonagh
Lisburn
BT28 3AL

Water Pollution Hotline: 0800 807060
Email: WaterInfo@doeni.gov.uk