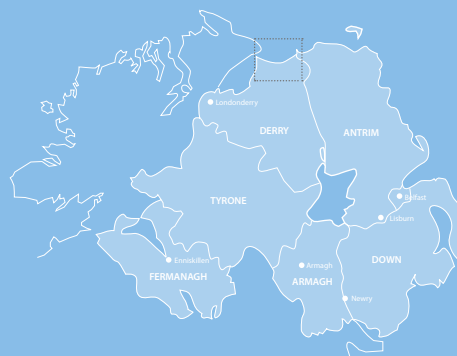


# Bathing Water Profile

## Castlerock

May 2023



*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](http://www.daera-ni.gov.uk)



## Map of Northern Ireland's Bathing Waters 2023



## 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](http://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](http://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

<b>Bathing Water Name</b>	Castlerock Bathing Water
<b>Location</b>	UK/Northern Ireland/County Londonderry/North Coast
<b>Year of identification</b>	1988
<b>Local council area</b>	Causeway Coast and Glens Borough Council
<b>Bathing Water Operator</b>	Causeway Coast and Glens Borough Council
<b>Description of bathing beach</b>	Sand, approximately 1 kilometre in length
<b>Monitoring Point</b>	Middle of bathing water, C77553638 (Map 2)

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

Castlerock is a popular seaside resort located on the north coast of Northern Ireland. Castlerock bathing water is approximately one kilometre in length and composed entirely of sand. The beach backs onto a sand dune system and golf course on the eastern side and a promenade area on the western side.

The immediate catchment for this beach is urban. However, the larger catchment consists of improved grassland with neutral grass and arable horticulture. The main geology in the area comprises mainly of Tertiary Basalts with the remainder being underlying Cretaceous and Jurassic rock.

One un-named river flows across the beach at the far western side of the bathing water.

The River Bann flows out to sea at the eastern end of the bathing area 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.

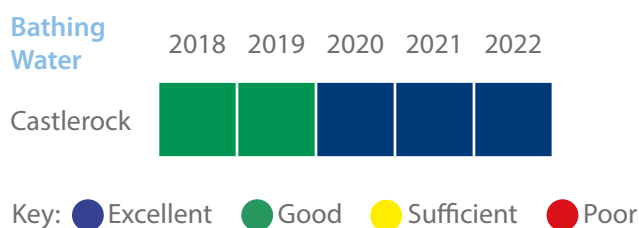
The main area of population affecting the bathing area is the town of Castlerock, which is immediately adjacent to the bathing area. This town has a population of approximately 1,300, although during the summer season this number is greatly increased due to the influx of holiday makers. The town of

Coleraine (pop. 24,000) is located to the south of the bathing area. The River Bann runs through the town of Coleraine and may indirectly affect the water quality at Castlerock.

## Bathing Water Quality at Castlerock

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

### Castlerock Bathing Water Quality 2018-2022



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](http://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 Castlerock 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.

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

## Waste Water

There is a major waste water treatment facility between Portrush and Portstewart with an outfall approximately 1 km off the coast to the east of Portstewart. This treated waste water outfall is approximately 6 km from the Castlerock bathing water. The works treats waste water from wider Portrush, Portstewart, Castlerock and Coleraine area. The waste water receives secondary treatment.

There is one minor waste water treatment works inland from Castlerock approximately 2.5 kilometres from the bathing area. (Map 1)

Castlerock town is a popular seaside location attracting 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 system. If systems are not designed in that way, then sewers may overflow into residential areas. Within the Castlerock area there are wastewater pumping stations with associated emergency overflows as 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 Waste Water Treatment Regulations (Northern Ireland) 2007 ([www.daera-ni.gov.uk/articles/urban-waste-water](http://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 (<https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/>).

## 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 was 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 manage agricultural land more effectively.

The wider catchment area of Castlerock bathing water has a significant amount of improved grassland

containing neutral grass and arable horticulture.

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

Castlerock 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](http://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 at Castlerock

From 2019-2022 there were two confirmed incidents of pollution in the Castlerock 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)

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

## Daily water quality forecasts

Castlerock is one of six bathing waters in Northern Ireland with daily bathing water quality prediction modelling. The model has been developed under the [SWIM NI](#) programme with predictions available to the public during the bathing season. The project was originally funded by the EU's INTERREG VA programme, managed by the Special EU Programmes Body (SEUPB), and match-funded by the Department of Agriculture, Environment and Rural Affairs in Northern Ireland (DAERA), and the Department of Housing, Planning and Local Government in Ireland. This model is currently in the pilot stage and daily water quality predictions are based on forecasted weather. Results are updated daily at 09:00. The predictions can be found on electronic signage or QR codes displayed at the bathing water and on the [SWIM NI](#) webpage or App. This system provides members of the public with a warning when there may be poor water quality brought about by short-term pollution events, enabling them to make an informed choice about bathing. As weather forecasts are not always accurate DAERA advice remains not to bathe during or up to 2 days after prolonged or heavy rain.

## Contact details

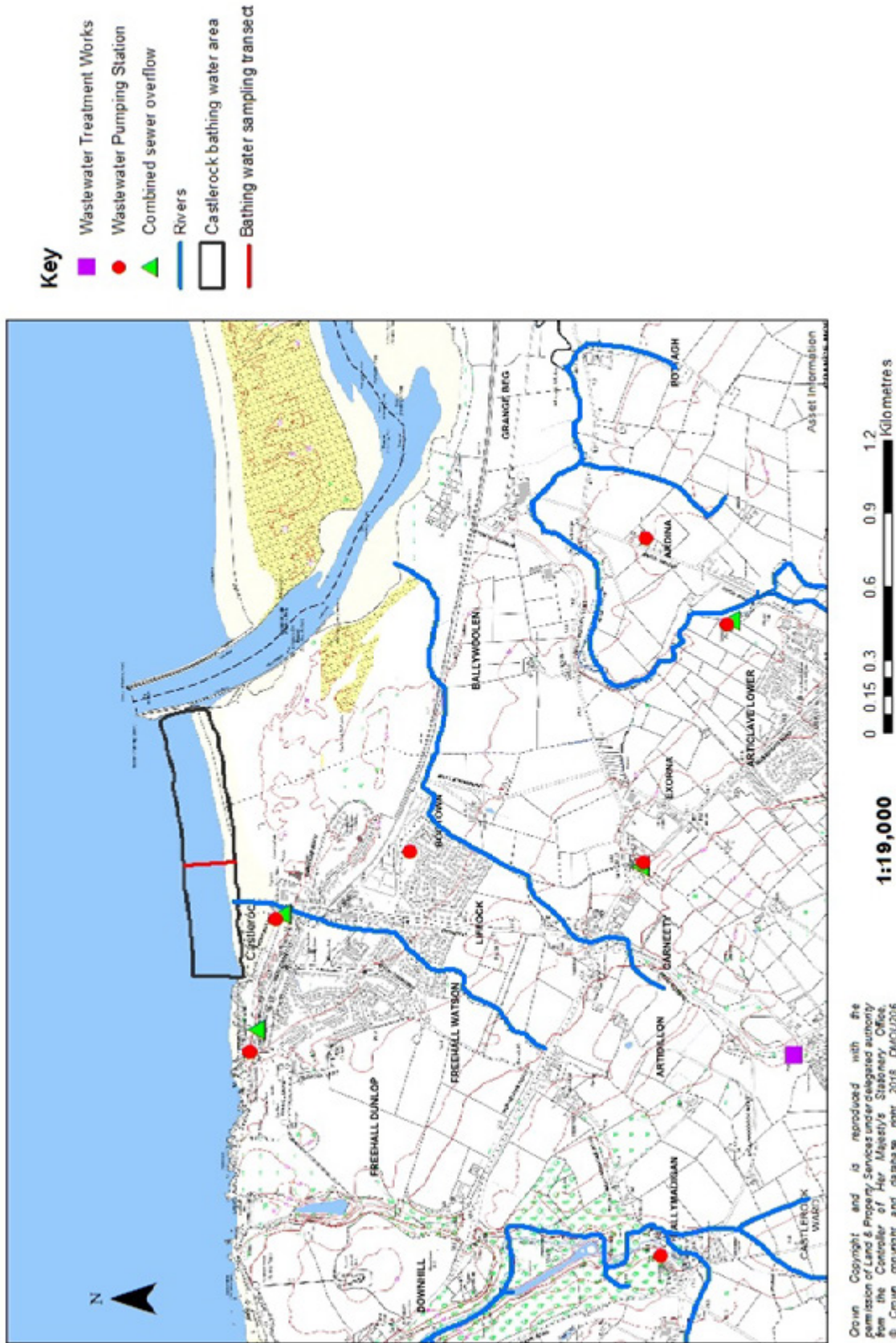
For general information about bathing waters:

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

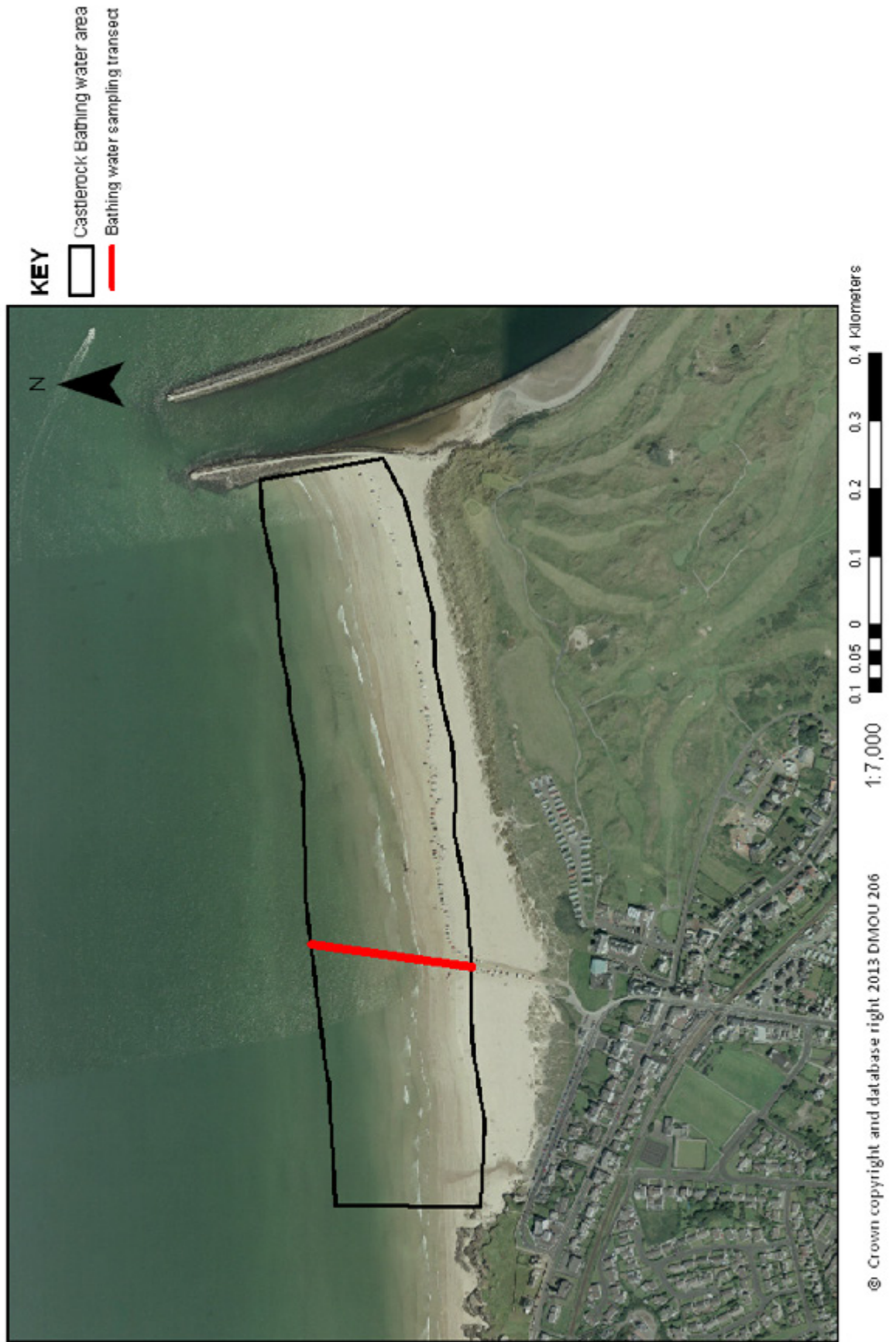
**Water Pollution 24hr Hotline** Phone: 0800 807060

**Local Authority** Causeway Coast and Glens Borough Council.  
Cloonavin  
66 Portstewart Road  
Coleraine, BT52 1EY  
Phone: 028 7034 7034

Map 1  
Castlerock Bathing Water -  
Potential Pollution Sources



Map 2  
Castlerock Bathing Water -  
EC Bathing Water Sample Location



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17 Antrim Road  
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