


# Bathing water profile:

## Lunderston Bay

<p><b>Bathing water:</b> Lunderston Bay</p>	
<p><b>EC bathing water ID number:</b> UKS7616078</p>	
<p><b>Location of bathing water:</b> UK/Scotland/LA (Map1)</p>	
<p><b>Year of Designation:</b> 2008</p>	
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<p><b>Bathing water description</b></p> <p>Lunderston Bay bathing water is a small shallow bay, less than 500 metres long, on the Firth of Clyde looking towards Dunoon. It is close to the town of Gourock and sits within Clyde Muirshiel Regional Park (Map 1). It was designated as a bathing water in 2008.</p> <p>The small sandy beach is a popular recreation and picnic area. It benefits from free parking, a ranger service, environmental education events and various seaside activities. National Cycle Route 75 extends from Lunderston Bay northwards along the coast to Gourock and beyond. A coastal walk goes south to Inverkip (2kms).</p> <p>During high and low tides the approximate distance to the water's edge can vary from 20–140 metres. For local tide information see: <a href="http://easytide.ukho.gov.uk/EasyTide/">http://easytide.ukho.gov.uk/EasyTide/</a></p> <p>Our monitoring point for taking water quality samples is located at the southern end of the designated area (NS 20400 74514) as shown on Map 1.</p>	
<p><b>Monitoring water quality</b></p> <p>Please visit our <a href="#">website</a><sup>1</sup> for details of the current EU water quality classification and recent results for this bathing water.</p>	

<sup>1</sup> <http://apps.sepa.org.uk/bathingwaters/>

During the bathing season (1 June to 15 September), designated bathing waters are monitored by SEPA for faecal indicators (bacteria) and classified according to the levels of these indicators in the water. The European standards used to classify bathing waters arise from recommendations made by the World Health Organisation and are linked to human health. More information on bathing water monitoring, health and classification can be found on our [website](#)<sup>2</sup>.

## Risks to water quality

In general, most natural waters will be affected to some extent during and following rainfall as pollutant loads may be increased due to run-off from agricultural or urban land in the catchment. In addition, at some locations waste water discharges from combined sewer overflows, which then drain into the bathing water and can reduce water quality.

Faecal pollutants can come from human sewage, farming activities and livestock (e.g. cattle, sheep), industrial processes, surface water urban drainage, domestic animals (e.g. dogs) and wildlife (e.g. birds) and can enter bathing waters via:

- direct discharges into the marine environment at, or in the vicinity of, the beach;
- the freshwater network draining into a bathing water, which can be prone to elevated bacterial levels as a result of diffuse pollution and/or point source inputs upstream.

There are no direct discharges to the bathing water. There are however, two significant point source discharges within the immediate vicinity:

- Inverclyde (Underheugh) waste water treatment works, which discharges to a long sea outfall 1 km to the north-west of the bathing water;
- a nearby garden centre with a private treatment plant with ultraviolet disinfection that discharges adjacent to the bathing water.

The principal risks and source of wet weather driven short term pollution at this bathing water arise from combined sewer overflows and treated sewage effluent. These events are expected to last 1–2 days depending on the duration of the rainfall and may result in elevated bacteria levels compared to dry conditions.

Assessment by SEPA, using knowledge from regulatory pollution control and scientific information, indicate that potential sources of short-term faecal indicator pollution at this bathing water can at times originate from human or animal sources.

## Cyanobacteria (blue-green algae)

Marine waters are not at risk of cyanobacteria overproduction.

## Algae

Current information suggests that this bathing water is not at risk of overproduction of macroalgae (seaweed) or phytoplankton. However, at any time of the year and particularly after storms, a considerable amount of seaweed can become stranded on the beach. Under the right conditions accumulated seaweed can rot producing grey/black fluid. The rotting seaweed can also generate offensive odours. This is an entirely natural process.

## Jellyfish

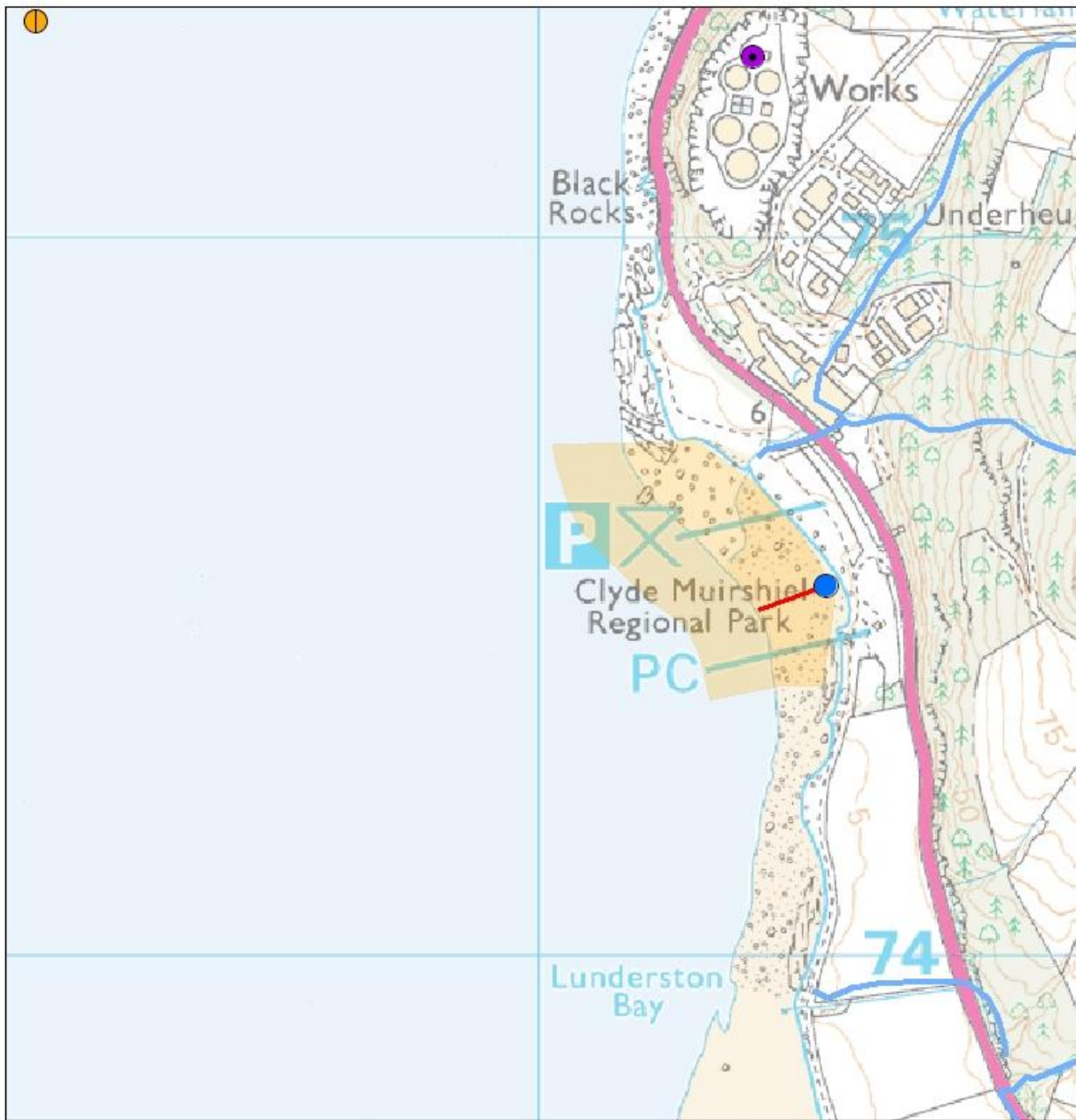
There is a possibility of increased numbers of jellyfish in the water during the summer months. This is a naturally occurring phenomenon. Although there are a few stinging species common to the UK, most are harmless. The Marine Conservation Society advises to 'look but don't touch'.

## Daily water quality forecasts

Lunderston bathing water is not part of our signage network. Daily water quality predictions are not currently required for this bathing water.

<sup>2</sup> <http://apps.sepa.org.uk/bathingwaters/SamplingResults.aspx>

Map 1: Lunderston Bay bathing water

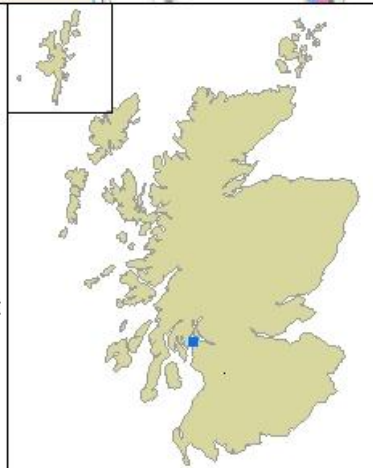


0 75 150 300 m



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- Designated bathing water
- Bathing water sampling point
- Bathing water sampling transect
- Sewage effluent discharge
- Sewage treatment works
- Watercourses



Map 2: Catchment draining into Lunderston Bay bathing water



## Catchment description

The catchment draining into the Lunderston Bay bathing water extends to 1.3 km<sup>2</sup>. The area is fairly hilly and gently slopes towards the bathing water. Elevation ranges from 150 metres in the east to 5 metres along the coast.

The area is predominantly rural (98%) with grassland (38%), woodland (32%) and shrub heath (27%) being the major land uses. The upland areas support mixed sheep and beef farming whilst the lowlands are mainly used for recreation. Approximately 2% of the bathing water catchment is urban. Population density within the catchment is generally low (Map 2).

Average summer rainfall for the region is 392 mm compared to 331 mm across Scotland as a whole.

There are no significant rivers within this catchment, however, there are a few small burns flowing through the catchment.

There are no protected areas either fully or partially within the bathing water catchment however, Clyde Muirshiel Regional Park is within a greenbelt area and covers 108 square miles of countryside in the west of Scotland. For more information about the park area see [Clyde Muirshiel Regional Park](#).

## Measures to improve bathing water quality

High quality bathing waters are important so that people can enjoy Scotland's environment safely. They are also important for Scotland's tourism industry.

Recent years have seen considerable improvements in Scotland's bathing water quality, not least due to substantial investment in the sewerage system. SEPA and our partners are fully committed to continuing to improve bathing water quality.

### Improving diffuse pollution from agricultural sources

Diffuse pollution from agricultural sources is normally the result of cumulative inputs of pollutants from several different sources on farms within the catchments draining to the bathing water. Consequently, tackling diffuse agricultural pollution requires concerted action across catchments. We will ensure this by working with farmers to raise awareness about the requirement to prevent and reduce pollution, and to help them identify appropriate actions for doing so.

To help co-ordinate our work to encourage and ensure action, SEPA participate in the [Diffuse Pollution Management Advisory Group](#)<sup>3</sup> (DPMAG), which is a partnership of relevant authorities, land manager representatives and voluntary organisations.

The Scottish Government has also brought together nine public bodies to form [Scotland's Environmental and Rural Services](#)<sup>4</sup> (SEARS). This partnership will contribute to implementing plans for tackling diffuse pollution by providing co-ordinated education and advice to rural land managers.

Additional targeted efforts will be made to improve management of diffuse pollution within catchments identified as 'priority' catchments. These are catchments where the scale of the pollution reduction needed will require planned and targeted actions to be identified and discussed with farmers concerned. Assistance will be given in these areas to identify pollution hotspots, and one-to-one advice will be provided on following the agricultural codes of good practice, which in themselves lead to compliance with these regulations. Action in priority catchments will be phased.

The Lunderston Bay bathing water is not within a priority catchment.

### Improving pollution from sewage and other discharges

Most waste water collection and treatment services in Scotland are provided by Scottish Water. It has invested substantially in waste water collection and treatment provision over recent years to protect public health and the environment. Public investments in the sewerage network and in treatment works will continue to be co-ordinated through the national investment and planning process for Scottish Water, known as 'Quality and Standards'.

Under the current Quality and Standards programme Scottish Water is investigating the potential impacts of their sewerage network assets within the Inverkip and Wemyss Bay catchment on the Lunderston Bay

<sup>3</sup> <http://www.sepa.org.uk/environment/water/river-basin-management-planning/who-is-involved-with-rbmp/dpmag/>

<sup>4</sup> [www.sears.scotland.gov.uk](http://www.sears.scotland.gov.uk)

bathing water. The catchment contains a waste water treatment works, several pumping stations and combined and emergency sewer overflows which discharge at various points along the Firth of Clyde. Overflows to the Spango Burn which combines with the Kip Water and enters the Firth of Clyde at Inverkip are also being considered. This assessment was carried out to determine whether any improvements to Scottish Water assets were required to meet the revised Bathing Waters Directive. The study concluded that additional asset monitoring and a review of the performance of a local private treatment works was required before asset improvements could be determined.

### Improving pollution from diffuse urban sources

Urban diffuse source pollution comes from rainwater falling onto urban areas (roads, pavements, yards and roofs) becoming contaminated with pollutants on those areas, washing into surface water drains and discharging from those drains to the water environment.

Tackling this type of pollution requires substantial changes in the way urban areas are drained, and efforts to reduce the quantity of pollutants deposited on urban surfaces. Since the mid 1990s, Sustainable Urban Drainage Systems (SUDS) have increasingly been used to drain new developments. They are designed to avoid pollution of the water environment and include permeable surfaces that allow infiltration of rainwater into the ground, slowing the rate at which it drains to the water environment and trapping and breaking down pollutants. Artificial ponds or wetlands provide a final stage of treatment. Local authorities, Scottish Water and SEPA are working together to co-ordinate efforts to tackle pollution from diffuse urban sources, incorporating SUDS into local plans and encouraging partner organisations to retrofit SUDS where possible.

Lunderston Bay bathing water is not affected by surface water run-off from urban sources.

### Responding to pollution incidents

Although rare, pollution incidents affecting bathing water quality can happen. Pollution incidents tend to be unpredictable, for example a slurry spill or sewage network failure, and can result in elevated levels of faecal indicators.

To report a possible pollution incident please use our 24 hour pollution hotline (0800 807060). In response we will investigate the incident and contact other relevant organisations. That may include Scottish Ministers, Scottish Water, the local authority and the relevant health board. Where necessary measures will be put in place to resolve the problem.

Whenever our routine sampling of bathing waters identifies elevated levels of faecal indicators there is an immediate response to check all relevant potential sources and major discharges in the immediate catchment, as well as our hydrometric information to determine whether the levels may be due to high river flows. Follow-up microbiology sampling is also undertaken of the bathing water and local water courses. If beach users or bathers are considered to be at risk the local authority will warn the public by erecting signs at the bathing water. Information will also be available on our [website](#)<sup>5</sup>.

Other pollutants at the beach may include plastics and litter. Beach users are encouraged to use the bins provided or to take litter home. Beach cleaning and litter clean-up is maintained for this bathing water by Clyde Muirshiel Regional Park on behalf of Inverclyde Council.

### Contact details and sources of more information

#### SEPA Angus Smith Building

6 Parklands Avenue,  
Eurocentral, Holytown,  
North Lanarkshire  
ML1 4WQ  
Tel: 01698 839000  
[www.sepa.org.uk](http://www.sepa.org.uk)

#### Inverclyde Council

Municipal Buildings  
Greenock  
PA15 1LY  
01475 717171  
01475 712181  
[www.inverclyde.gov.uk](http://www.inverclyde.gov.uk)

#### Pollution Hotline

0800 80 70 60  
24 hours per day, seven days per week

<sup>5</sup> <http://apps.sepa.org.uk/bathingwaters/Predictions.aspx>

**Keep Scotland Beautiful**

01786 471333

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[info@clydemuirshiel.co.uk](mailto:info@clydemuirshiel.co.uk)**Clyde Muirshiel Regional Park**

Greenock Cut Visitor Centre

Loch Thom

near Greenock

PA16 9LX

01475 521458

Further information about the condition of our water environment and the actions needed to deliver improvement can be found in:

- the Scotland river basin management plan <http://www.sepa.org.uk/environment/water/river-basin-management-planning/>
- the Clyde area management plan <http://www.sepa.org.uk/environment/water/river-basin-management-planning/who-is-involved-with-rbmp/area-advisory-groups/clyde/>

Good Beach Guide: [www.goodbeachguide.co.uk](http://www.goodbeachguide.co.uk)

Blue Flag and Seaside Awards: [www.keepsotlandbeautiful.org/coastal](http://www.keepsotlandbeautiful.org/coastal)

**Version Control**

Version number:	Date:	Next review due:
1.0	Nov 2010	
1.1	April 2014	
1.2	June 2015	