


Bathing water profile:

Fraserburgh (Tigerhill)

<p>Bathing water: Fraserburgh (Tigerhill)</p>	
<p>EC bathing water ID number: UKS7616023</p>	
<p>Location of bathing water: UK/Scotland/ Aberdeenshire (Map1)</p>	
<p>Year of designation: 1987</p>	
<p>Bathing water description</p> <p>Fraserburgh (Tigerhill) bathing water is located on the north coast of Aberdeenshire close to the town of Fraserburgh. It is an extensive sandy beach of approximately 2 km in length, backed by an impressive dune system. The bathing water is adjacent to Fraserburgh (Philorth) bathing water (Map 1). It was designated as a bathing water in 1987.</p> <p>During high and low tides the approximate distance to the water's edge can vary from 0 to 130m. The beach slopes gently towards the water. For local tide information see http://easytide.ukho.gov.uk/EasyTide/</p> <p>The beach is a popular recreational, surfing and windsurfing area and also favoured by families.</p> <p>Our monitoring point for taking water quality samples is located at the mid-point of the designated area (Grid Ref NK 00510 65640) as shown on Map 1.</p>	
<p>Monitoring water quality</p> <p>Please visit our website¹ for details of the current EU water quality classification and recent results for this bathing water.</p> <p>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 website².</p>	

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

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

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.

The potential relevant pollution sources at, or near, this bathing water are highlighted on Map 1.

The principal risks and source of wet weather driven short term pollution at this bathing water arise from surface water urban drainage, agricultural run-off and combined sewer overflows. 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.

Birds congregate at the mouth of the Kessock Burn where it meets the bathing water: faecal pollution from birds potentially affects on bathing water quality.

Our regulatory and scientific assessment indicates 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 excessive production of cyanobacteria.

Algae

Current information suggests that this bathing water is not at risk of excessive production of macroalgae (seaweed) or phytoplankton.

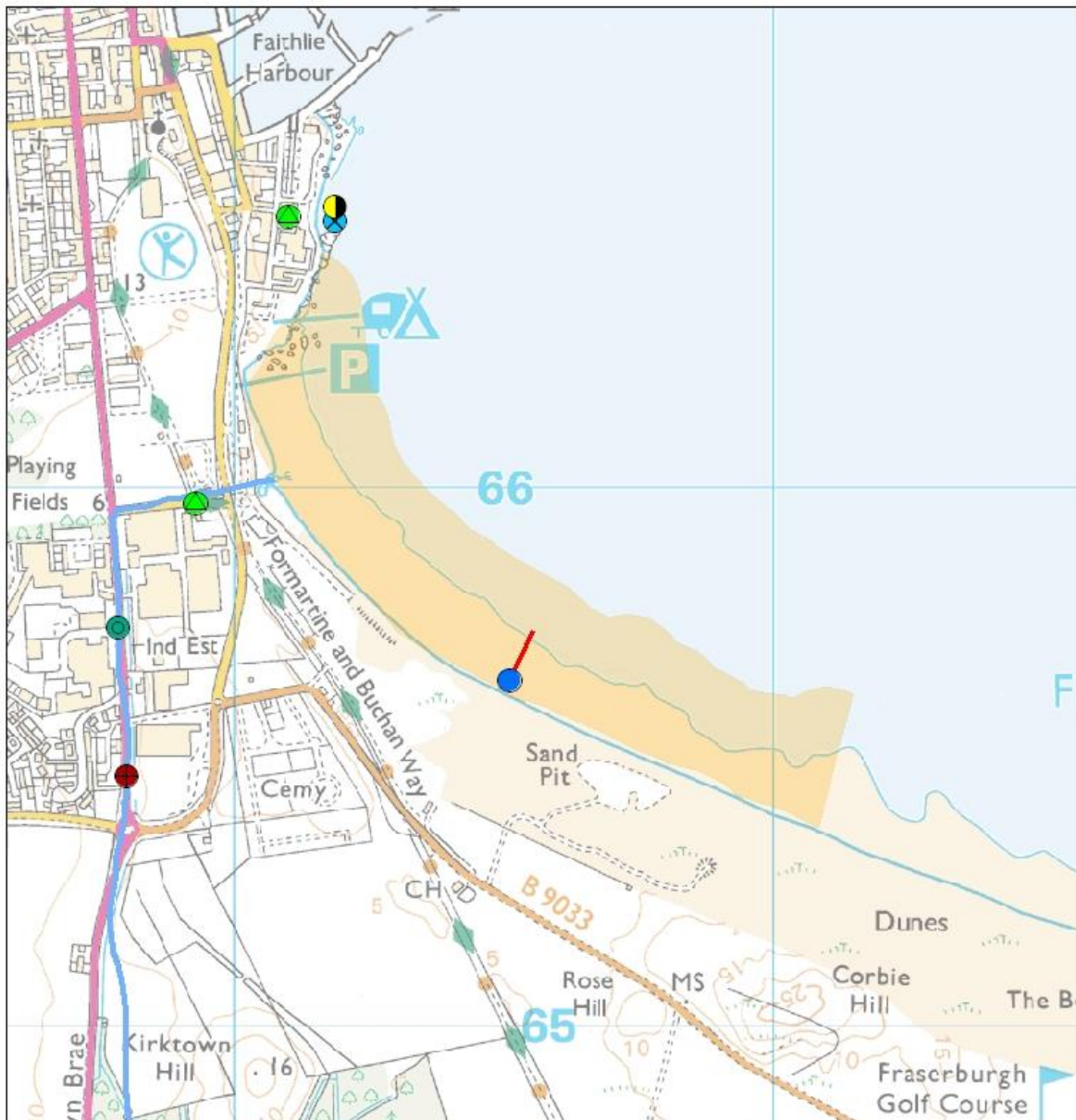
Jellyfish

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

Fraserburgh (Tigerhill) bathing water is not part of our signage network. Daily water quality predictions are not currently required for this bathing water.

Map 1: Fraserburgh (Tigerhill) bathing water

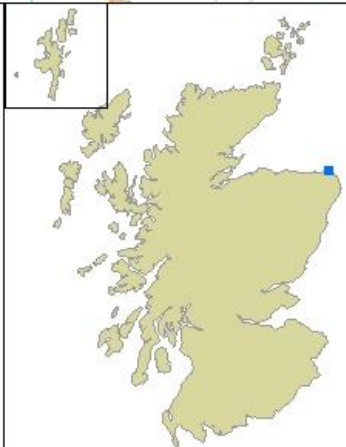


0 100 200 400 m



- Designated bathing water
- Bathing water sampling point
- Bathing water sampling transect
- X Combined sewer overflow
- Emergency overflow
- Other effluent discharge
- Surface water discharge
- Sewage pumping station
- Watercourses

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Map 2: Catchment draining into Fraserburgh (Tigerhill) bathing water



Catchment description

The catchment draining into the Fraserburgh (Tigerhill) bathing water extends to 16 km². The catchment varies in topography from gentle hills (max elevation 75 metres) in the west to the low-lying plains (average elevation 5 metres) along the coast. Average summer rainfall for the region is 267 mm compared to 331 mm across Scotland as a whole.

The main river within the bathing water catchment is the Kessock Burn which flows into the sea at the western end of the bay.

The catchment is predominantly rural (93%) with agriculture the major land use. The agricultural land is split between arable farming (60%) and grassland (26%). The area supports mixed farming. Approximately 6% of the bathing water catchment is urban. The main population centre is the town of Fraserburgh situated about 1km to the west of the bathing water. Population density outside of the town is generally low and is centred within a number of small villages (Map 2).

There are no protected areas within the bathing water catchment.

Fraserburgh (Tigerhill) bathing water lies within a designated Nitrate Vulnerable Zone.

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](#)³ (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](#)⁴ (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.

There are approximately six farms in the catchment draining to this bathing water, the majority of which support mixed farming. Although diffuse pollution from agriculture is not believed to be significant in this catchment, there are some risks to the bathing water quality from run-off from the land into the Kessock Burn, particularly during periods of wet weather.

Fraserburgh (Tigerhill) bathing water catchment is within the Buchan Coastal priority catchment. Proactive one-to-one farm visits were undertaken in the catchment during 2014. These visits looked to identify diffuse pollution sources and pathways by which potential pollutants could reach the water environment and impact on bath waters. All actual and potential polluting sources identified were discussed with the land manager and mitigation measures agreed with them to reduce the likelihood of diffuse pollution arising from

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

⁴ www.sears.scotland.gov.uk

their activities and reduce the risk of bacterial pollution on water quality in the future. It is hoped that this work will lead to a reduction in the bacterial load to the bathing water from the Kessock Burn.

The Kessock Burn sits within a nitrate vulnerable zone and as such will already have measures in place to reduce and prevent further nitrate contamination. For further information visit the [Scottish Government's website](#).

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'.

Improvements to the sewerage system have led to a significant reduction in the level of faecal indicators in this bathing water under normal conditions.

In 2001, a new sewage treatment works was completed in Fraserburgh and a several untreated sewage discharges in the vicinity of the bathing water were removed. Local sewage is now pumped to the Fraserburgh works, 3 km west of the bathing water, where it undergoes full biological treatment and ultraviolet disinfection prior to discharge through a new outfall to sea on the western side of the town. Bacteriological monitoring of the effluent from the works has shown that the disinfection treatment is extremely effective. Fraserburgh sewage treatment works is not a potential threat to the bathing water quality. The modelling that supported the design of the sewerage improvement scheme may need to be reviewed in light of the revised bathing water standards.

The only remaining consented sewage discharge within the vicinity of the bathing water is the intermittent discharge (combined sewer overflow and emergency overflow) from the pumping station at the northern end of the bathing water. This discharge poses a potential risk to bathing water quality and as such is included within our monitoring programme. Work has been carried out by Scottish Water to ensure that spills from this discharge are restricted to the number permitted by its consent conditions. This facility is inspected prior to the start of the bathing season to verify that appropriate measures are in place to protect the bathing water in the event of any spillages.

There are three surface water sewers discharging to the Kessock Burn. An intermittent problem exists with one of these discharges despite several investigations to identify the root of the problem. These surface water sewers have the potential to affect the bathing water quality. Proposals to identify and rectify misconnections on the sewerage system were put forward under Scottish Water's Quality and Standards programme but are unlikely to go ahead due to other prioritised work.

There are a number of private septic tanks that discharge to the Kessock Burn which cumulatively have the potential to impact on the bathing water quality.

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.

The Kessock Burn, which discharges directly into the Fraserburgh (Tigerhill) bathing water, is known to be affected by surface water run-off from the urban area through which it runs and potentially impacts on bathing water quality.

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](#)⁵.

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 Aberdeenshire Council.

Contact details and sources of more information

SEPA Fraserburgh office

Shaw House
Mid Street
Fraserburgh
AB43 9JN
01346 510502
www.sepa.org.uk

Aberdeenshire Council

Woodhill House
Westburn Road
Aberdeen
Aberdeenshire
AB16 5GB
08456 081207
www.aberdeenshire.gov.uk

Pollution Hotline

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

Keep Scotland Beautiful

01786 471333
beach@ksbscotland.org.uk
www.keepsotlandbeautiful.org

Scottish Government

Victoria Quay
Edinburgh
EH6 6QQ
0131 244 0396
egcat@scotland.gsi.gov.uk
www.scotland.gov.uk/Topics/Environment/Water/15561/bathingwaters

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

Good Beach Guide: www.goodbeachguide.co.uk

Blue Flag and Seaside Awards: www.keepsotlandbeautiful.org/coastal

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

Version Control		
Version number:	Date:	Next review due:
1.0	September 2010	
1.1	May 2014	
1.2	April 2015	