


Bathing water profile:

Inverboyndie

<p>Bathing water: Inverboyndie</p>	
<p>EC bathing water ID number: UKS7616027</p>	
<p>Location of bathing water: UK/Scotland/Aberdeenshire (Map1)</p>	
<p>Year of designation: 1999</p>	
<p>Bathing water description</p> <p>Inverboyndie bathing water is situated close to the small town of Inverboyndie in Aberdeenshire. It is a relatively small, shallow bay about 700 metres long and adjacent to a large caravan site (Map 1). It was designated as a bathing water in 1999.</p> <p>During high and low tides the approximate distance to the water's edge can vary from 0–180 metres. The beach slopes gently towards the water. For local tide information see: http://easytide.ukho.gov.uk/EasyTide/</p> <p>The beach is popular for a range of activities including surfing, windsurfing, bathing and wildlife walks.</p> <p>Our monitoring point for taking water quality samples is located at the eastern end of the designated area (Grid Ref NJ 67187 64743) 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/SamplingResults.aspx>

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, storm 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. There are no direct discharges to the bathing water.

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, 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.

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.

Bathing is not advisable during or following (one or two days after) rainfall. Bathing or swimming after storms, floods or heavy rainfall should be avoided as the risk of illness following short term water pollution is increased.

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.

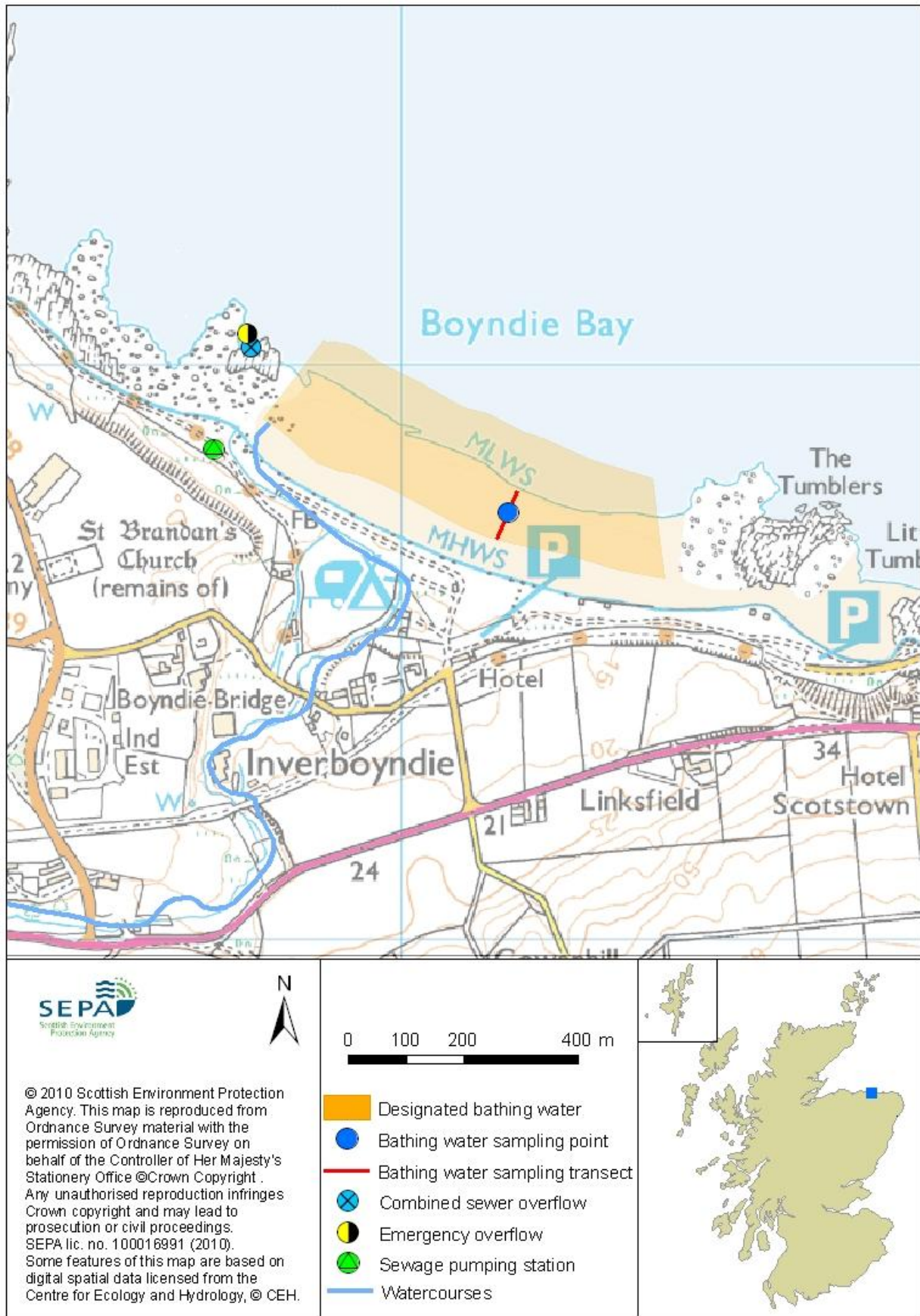
Jellyfish

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'.

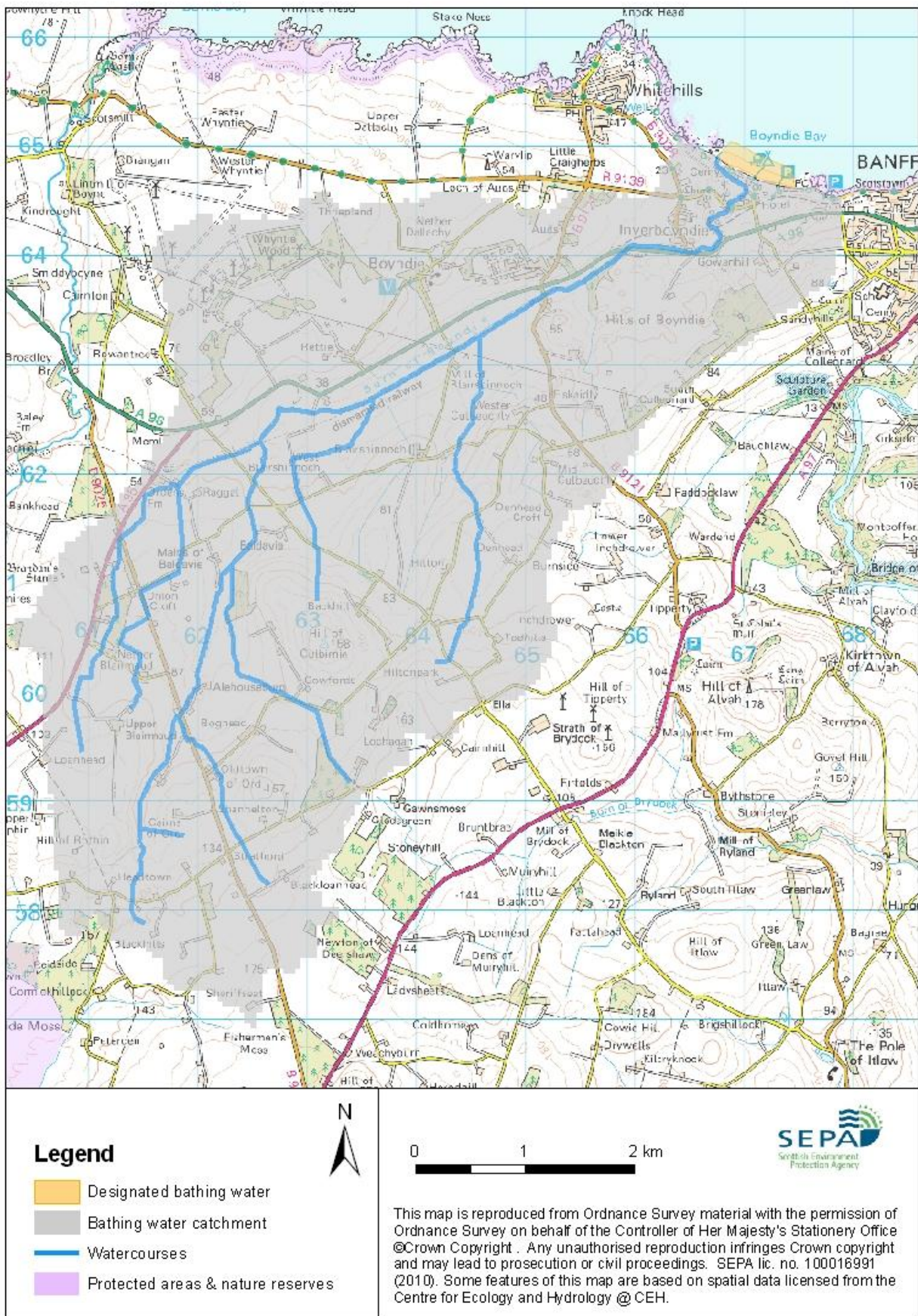
Daily water quality forecasts

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

Map 1: Inverboyndie bathing water



Map 2: Catchment draining into Inverboynie bathing water



Catchment description

The catchment draining into the Inverboyndie bathing water extends to 30 km². The catchment varies in topography from hills (maximum elevation 180 metres) in the south to low-lying plains (average elevation 5 metres) along the coast. Average summer rainfall for the region is 267mm compared to 331mm across Scotland as a whole.

The main river within the bathing water catchment is the Boyndie Burn which discharges the sea at the western end of the bathing water.

The area is predominantly rural (99%) with agriculture the major land use. The agricultural land is split between arable farming (65%) and grassland (27%). The area supports mixed farming. Approximately 1% of the bathing water catchment is urban. The main population centre is the village of Inverboyndie within 1 km of the bathing water. Population density outside of Inverboyndie is generally low. The larger town of Banff is located outside of the catchment to the east of the bathing water (Map 2).

There is one protected area partially within the bathing water catchment which is a Site of Special Scientific Interest (Map 2). This designation is not expected to impact on the water quality at Inverboyndie bathing water. For further information on this protected area see Scottish Natural Heritage's [information service website](#)³.

Inverboyndie 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](#)⁴ (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](#)⁵ (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 20 farms within the catchment draining to the Inverboyndie bathing water, most of which support mixed farming. All farms within the Boyndie Burn catchment were inspected in 2003 to identify potential sources of bacterial contamination which could pollute the bathing water. Several of these

³ www.snh.org.uk/snhi

⁴

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

⁵ www.sears.scotland.gov.uk

farms have since been revisited. The response from the farming community was encouraging and most farms had carried out the measures to minimise agricultural pollution. Pollution from agricultural run-off is thought to occur in the Boyndie Burn. Although the pollution is not believed to be significant, there is some risk to bathing quality during periods of wet weather.

Diffuse pollution from the River Deveron, which discharges to the coast to the east of Inverboyndie bathing water, may also have an influence on the bathing water quality depending on local weather and tidal conditions.

Inverboyndie bathing water is within the Banff Coastal catchment. Work to address diffuse pollution issues in this catchment is expected to be completed by 2027.

The Boyndie 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](#)⁶.

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'.

Inverboyndie has benefited from substantial improvements to the surrounding sewerage system in recent years. A continuous discharge of untreated sewage at one end of the beach has been eliminated and the sewage is now pumped to a treatment plant at Macduff where it undergoes full biological treatment followed by ultraviolet disinfection. The only remaining sewage discharge in the vicinity of the bathing water is an intermittent discharge from the Inverboyndie outfall. This has been retained as a combined sewer and emergency overflow for the pumping station only but is a potential risk to the bathing water quality. Sewage from the nearby town of Banff is also treated at the Macduff sewage treatment works.

Scottish Water has recently undertaken a study in Inverboyndie to identify any improvements required to meet the requirements of the revised Bathing Waters Directive. This indicated that improvements to Scottish Water assets would not improve bathing water quality classification.

In 2008, septic tanks serving the caravan site adjacent to the bathing water were removed and the site connected to the public sewer. This upgrade removed discharges from the Boyndie Burn and helped water quality at the bathing water.

There are several other septic tanks in the local area. Under certain conditions, such as wet weather or high river levels combined with high tides and on-shore winds, these tanks may affect bacteria levels at the bathing water.

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 Boyndie Burn, which discharges into the bay at the western end of the bathing water, is thought to be affected by surface water run-off from the urban area and the Inverboyndie industrial estate through which it runs; therefore potentially affecting bathing water quality.

⁶ www.scotland.gov.uk/Topics/farmingrural/Agriculture/Environment/NVZintro

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](#)⁷.

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

⁷ <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	May 2015	