

## Practitioners Fact Sheet No. 2

### Bathing waters glossary

10 July 2012

This document is designed to be used for practitioners in Bathing Waters as a reference document for responses to queries from the public or the media.

The following list provides explanations of words, phrases and acronyms used for bathing waters

Bacteria	Living micro organisms which can be either beneficial or have the potential to cause illness.
Bathing water	Parts of the sea or inland waters in the UK that have been designated for people to swim in. Designation in England is made by the Department of Environment Food and Rural Affairs (Defra), in Wales the Welsh Government, in Scotland the Scottish Government and in Northern Ireland the Northern Ireland Executive. These waters are sampled by the relevant environment agency and results of analyses are reported annually to Europe.
Blue Flag	<p>The Blue Flag is a voluntary eco-label awarded to over 3800 beaches and marinas in 46 countries across Europe, South Africa, Morocco, Tunisia, New Zealand, Brazil, Canada and the Caribbean.</p> <p>The Blue Flag works towards sustainable development of beaches and marinas through strict criteria dealing with Water Quality, Environmental Education and Information, Environmental Management, and Safety and Other Services.</p> <p>The Blue Flag Programme is owned and run by the non-government, non-profit organisation the Foundation for Environmental Education (FEE).</p>
Body of water	A volume of water, such as part of a river, lake, stream or the sea.
Catchment	The area from which rainfall (and other precipitation) contributes to the flow from a borehole, spring, river or lake. For rivers and lakes this includes tributaries and the areas they drain.
Compliance current Bathing Water Directive	<p>Each bathing water receives an annually assessed water quality classification.</p> <p>We assess the number of certain types of bacteria which may indicate the presence of pollution, mainly from sewage or livestock waste. <i>E. coli</i> (EC) and <i>Intestinal Enterococci</i> (IE) are bacteria that indicate the presence of faecal pollution. An increase in the concentrations of these bacteria indicates a decrease in water quality.</p> <p>Higher (Guideline in Scotland) means the bathing water meets the criteria for the stricter guideline standards of the Directive - limits used are EC: 100; IE:</p>

	<p>100. All values are colonies per 100ml of sample.</p> <p>Minimum (Mandatory in Scotland) means that at least 95% of the samples meet the mandatory standards of the Directive; limits used are EC: 2000 Fail means that fewer than 95% of the samples meet the required mandatory standards of the Directive; limits used are EC &gt;2000 .</p> <p>Not sampled indicates that the bathing water was closed during the bathing season.</p>
Contamination	Impurity or pollution.
CSO - Combined Storm Overflow	Overflow pipes designed to relieve pressure on sewerage systems during periods of high rainfall and so prevent flooding. Overflows allow rainwater and diluted sewage (usually screened to remove solids), to bypass sewage treatment works and flow directly into rivers and coastal waters.
Current Bathing Water Directive	This directive was introduced in 1976 to safeguard, and drive improvement, of the quality of bathing waters; with the aim of protecting human health and facilitating recreational use of natural waters.
Diffuse pollution	Pollution arising from land use activities (urban and rural) that are dispersed across a catchment, and which does not arise at a point such as, industrial discharges or municipal sewage effluents.
DNA tracing technique (MST) or tracer study	Microbial Source Tracking (MST) for bathing water analysis. This technique analyses sequences of genetic code from particular types of gut bacteria or directly from animal DNA. These analyses help to determine whether the source of the pollution has human, farm animal, bird or other origins.
Effluent	The outflow point of a sewage works from a pipe or hole.
Esherichia Coli (E.coli)	<p>E.coli is one of the new indicators that is being used to measure water quality.</p> <p>E.coli is found in the intestines of animals and humans and therefore the presence of the bacteria indicates that human or animal excretions may be present in bathing water and could contain other potentially harmful organisms that could cause illness.</p> <p>Occasionally, usually during heavy rainfall, soil containing E.coli bacteria is washed into, rivers, streams, lakes, or groundwater leading to bathing waters, and if found, E.coli bacteria indicates that harmful bugs could be present. Most strains of E.coli are harmless but if ingested some can cause gastro intestinal symptoms.</p>
Faecal coliforms (FC) and faecal streptococci (FS)	These bacteria were used to assess bathing water quality prior to 2012. They are types of bacteria found in sewage and animal excreta whose presence in high numbers indicates poor water quality. Although not necessarily disease-causing themselves, high levels of these indicator bacteria at a site indicate that disease causing organisms may be present.
Faecal matter	Excrement.
Intestinal Enterococci	Enterococci are one of the new indicators under the directive that is being

(IE)	<p>used to measure water quality.</p> <p>Enterococci are found in the intestines of animals and humans and therefore the presence of the bacteria indicates that human or animal excretions may be present in bathing water alongside other potentially harmful organisms that could cause illness.</p> <p>Occasionally, usually during heavy rainfall, soil containing Enterococci bacteria is washed into, rivers, streams, lakes, or groundwater leading to bathing water and the presence of IE can indicate that harmful bugs can be present.</p>
Macroalgae	Multi-cellular algae such as seaweed.
Microscopic	Not large enough to be seen with the naked eye but visible under a microscope.
Misconnections (Also called wrong connections)	Misconnections of foul sewage pipes into surface water drains are a significant source of urban diffuse pollution in those areas where a separate drainage system is used. Misconnections can happen when domestic plumbing has been connected into surface water drains instead of the foul sewer. This means untreated dirty water goes directly into the environment without receiving treatment.
Monitor	Each bathing season (15 May to 30 September in England and Wales, 1 June to 15 September in Scotland and Northern Ireland), water quality inspectors from the relevant environment agency take samples at every designated bathing to monitor the quality of bathing waters. These are analysed and the results are posted on our websites.
Permit	A discharge permit to set the design criteria or discharge water quality standards of a sewerage system to protect water quality.
Profile	A bathing water profile is a document containing information on a designated bathing water. Profiles are a requirement of the revised Bathing Water Directive.
Quality Coast Award	Keep Britain Tidy's Quality Coast Award recognises and rewards beaches in England that achieve high standards of beach management. The award recognises three distinct categories of beach and requires compliance with the mandatory standards for water quality under the EU Bathing Water Directive.
RBMP - River Basin Management Plan	For each River Basin District, the Water Framework Directive requires a River Basin Management Plan to be published. These are plans that set out the environmental objectives for all the water bodies within the River Basin District and how they will be achieved. The plans will be based upon a detailed analysis of the pressures on the water bodies and an assessment of their impacts. The plans must be reviewed and updated every six years.
Revised Bathing Water Directive	The revised Bathing Water Directive (76/1160/EEC) came into force on 24 March 2006 and is an update to the current Bathing Water Directive (76/1160/EEC). The overall objective of the revised Directive remains the protection of public health whilst bathing, but it also offers an opportunity to

	improve management practices at bathing waters and to standardise the information provided to bathers across Europe. The revised directive standards are much more stringent than those for the current directive.
Riverine	Relating to or produced by a river.
Sea outfall pipe	A pipe which conveys and discharges treated wastewater into coastal or estuarine waters.
Sewage	Waste water from toilets and washing, draining from homes and businesses.
Sewerage	The network of pipes, drains and pumps which conveys sewage effluent from homes to sewage treatment works.
Signage	Signs to inform the public are a requirement of the revised Bathing Water Directive. From 2012 signage is required to inform the public of the state of the bathing water quality at each designated bathing water.
Sluiceway	Valve or gate fitted to a sluice (channel that carries a rapid current of water) to control the rate of flow of water.
Spill frequency	The frequency with which an overflow discharges.
Surface water runoff	Rainwater that flows off land including, roofs, roads, pathways, driveways, hard standings and car parks.
Total coliforms	A count of all the coliform type bacteria present in a sample.
Ultra Violet (UV) treatment	The irradiation of treated sewage effluent with ultraviolet light in order to reduce the numbers of micro-organisms in the effluent.
Water Company	Water companies supply water services in England and Wales. Some are water supply only companies and some are combined water and sewerage companies.
WFD – Water Framework Directive	European Union legislation Water Framework Directive (2000/60/EC) - establishing a framework for European Community action in the field of water policy.