

Bathing water in the South West



How South West Water helps to protect it, as part of a team effort

The way bathing water quality is monitored has changed and more stringent new standards were introduced in 2015.

While water companies alone are not responsible for the quality of bathing water, they play a key role in protecting it.

This leaflet explains the changes and the role South West Water plays in ensuring the new standards are met.

The South West Water region includes 674 miles of coastline and 146 designated bathing waters, which play a vital role in the region's economy.

Since South West Water was established, in 1989, we have invested over £2.3 billion to protect and improve the region's designated bathing waters.

Before the Clean Sweep programme – the biggest environmental clean-up of its kind in Europe at the time – raw, untreated sewage was routinely discharged into our coastal waters from 40% of the region's homes. This no longer happens. Malcolm Bell, Chief Executive of Visit Cornwall, said: "Without Clean Sweep the tourist industry would have been destroyed."

More recently, in 2014/15, South West Water invested a further £20 million to deliver even cleaner seas at nine beaches in Dorset, Devon and Cornwall which were considered to be at risk of not meeting the new EU bathing water directive.

See southwestwater.co.uk/evencleanerseas for details.

As a result, the bathing waters in our region are among the cleanest in Europe.

In addition, between 2015 and 2020 we will spend a further £463 million on improving the region's sewerage network and treatment works.

Water quality influencers

Bathing water quality can be affected by many factors outside water companies' control such as rainwater running off roads and roofs, run-off from agricultural land, sewage from privately owned treatment works and septic tanks, boats or even animals such as dogs or seabirds on the beach. This can be made worse by heavy rain.

Water companies and bathing water

Some water company operations can directly affect bathing waters. These include:

Sewage treatment works – these treat wastewater from homes and businesses to strict standards before releasing the treated water out to sea, or other watercourses, through outfall pipes. It's worth noting that almost 60% of the region's population is now connected to sewage treatment works with the highest levels of treatment including UV disinfection.

Storm overflows – also known as combined sewer overflows or CSOs – are part of sewerage systems around the world. During intense rainfall, if the amount of surface water entering the sewerage network is greater than it was designed to manage, storm overflows allow controlled releases of storm water into rivers and the sea to prevent flooding inland, protecting people, property and parks. The use of storm overflows is licensed by the Environment Agency and they should only operate during or shortly after heavy or prolonged rainfall. The impact of this heavily diluted storm water is short-lived. To change the current combined system would require the vast majority of houses in the region to be re-plumbed, roads dug up to separate the sewers and surface water drains with a significant increase in water bills.

Misconnections – when homes or businesses have wrongly connected their private plumbing into the surface water system, which eventually discharges into rivers or streams, instead of to the public sewerage network to be treated. This can affect bathing water quality. A national campaign (connectright.org.uk) raises awareness of the issue. South West Water is working with local authorities and the Environment Agency to identify misconnections. When any are found, the local authority will work with the property owner to resolve the issue.

Key changes to the Bathing Water Directive

In 1976, the European Union introduced the Bathing Water Directive (BWD) which required 'designated bathing waters' to be identified and the water quality monitored throughout the bathing season, which in England is 1 May to 30 September. Designated bathing waters are beaches, lakes or ponds that are used by a large number of bathers. The UK is now implementing a new BWD.

Whilst this new directive sets more stringent standards for bathing water quality, to further protect public health, it also requires better public information to be available about bathing water quality so people can make informed decisions about where and when to bathe. In addition it uses four seasons' worth of water quality data to classify the bathing water.

It is a European directive, implemented and managed by the Department for Environment, Food and Rural Affairs (Defra) and the Environment Agency. The new standards came into effect at the end of the 2015 bathing season.

Bathing water quality monitoring and new indicators

The Environment Agency takes weekly samples during the bathing water season on behalf of Defra. Samples are taken at the most popular spots for bathers at 146 designated bathing waters in South West Water's region, all of which are coastal.

Under the new directive, the samples are tested for two types of bacteria, *Escherichia coli* (*E. coli*) and intestinal enterococci. Both are indicators of faecal contamination but this can come from many different sources, not just humans.

The Environment Agency began monitoring with the new indicators in 2012 and ceased using the previous indicators (faecal and total coliforms and faecal streptococci). This was to ensure that by 2015 there would be four seasons' worth of data using the new indicators.

Classifications for bathing waters are published at the end of each bathing water season, usually in early November.

Bathing water quality classifications

As well as the new indicators, the new BWD has also brought in a new way of measuring water quality.

There are four new classifications – excellent, good, sufficient and poor – which replace the previous standards of guideline (excellent), mandatory (good) and failed. For comparison under the new directive:

- **Excellent** is about twice as stringent as the previous guideline standard and the standard required for a Blue Flag (as of 2013)
- **Good** is broadly equivalent to the previous guideline (excellent) standard
- **Sufficient** is about twice as stringent as the previous mandatory (good) standard
- **Poor** is below sufficient.

A classification is made for each bathing water at the end of each season based on the previous four seasons' data.

It is important to note a change in the classification process does not necessarily mean a change in actual quality. It's the way in which water quality is measured that has changed.

A drop in classification does not mean that actual water quality is any poorer under the new directive – in fact, the UK's bathing water has improved steadily since water companies were privatised in 1989.



Improved public information

Environment Agency online bathing water profiles

These were created and are updated by the Environment Agency for each of the UK's designated bathing waters and can be viewed on the agency's website <http://environment.data.gov.uk/bwq/profiles/>

Each profile includes:

- A description, map and photograph of the bathing water
- The bathing water quality classification
- Potential pollution sources and risks to bathing water quality
- Measures being taken to improve water quality.

Information at beaches for bathing water users

Since May 2015, information about water quality and potential sources of pollution must be displayed at each designated bathing water.

These signs, which are the responsibility of the beach manager (usually the local authority), must have a description of the bathing water and include information about the number of warnings issued by the Environment Agency from its pollution risk forecasting system. From 2016, the signs will also include the annual classification of the bathing water.

South West Water's BeachLive

South West Water's voluntary, real-time bathing water information service, BeachLive (beachlive.co.uk), provides free alerts when storm overflows may affect bathing water quality, so informed decisions can be taken by both the public and beach managers during the

bathing water season. An app can also be downloaded, so the information is available on the move. South West Water shares its BeachLive alerts with Surfers Against Sewage free of charge for use in their Safer Seas Service.

Environment Agency Pollution Risk Forecasting (PRF)

The Environment Agency (EA) now alerts the public when certain bathing waters may be affected by rainfall. The aim is to allow people to make an informed decision over whether or not to bathe. When the EA makes its forecast, the beach manager may also put up a dated sign (before 10am) to advise the public about the predicted short-term reduction in water quality.

The EA also posts PRF predictions on its website: <http://environment.data.gov.uk/bwq/profiles/>

A small trial carried out in 2013 was extended to the beaches most affected by heavy rain, 59 of which are in the South West Water region.

Heavy rain can affect bathing water quality in a number of ways, so signs do not necessarily mean a release from a water company storm overflow has happened or will happen. In fact, the water quality may not be affected at all – the signs simply warn against a potential impact as a result of rainfall in the catchment behind the beach.

The Environment Agency shares its PRF alerts with Surfers Against Sewage free of charge for use in their Safer Seas Service.

Environment Agency Abnormal Situation (AS) notices

In the event of a serious pollution event that might affect bathing water quality the Environment Agency may declare an abnormal situation. In such circumstances the beach manager must erect signs at the beach advising of the increased risk to water quality. The sign is different in design to the PRF sign, but will also be dated and may advise on how long the event might last.

Abnormal situations can include pollution events like slurry spills, breakdowns or blockages on the sewerage system and accidental industrial discharges. Typically such unusual events should not happen more than once in four years on average.

The EA also publishes AS notices on its website against individual bathing waters <http://environment.data.gov.uk/bwq/profiles/>

Blue Flags

The Blue Flag scheme is operated by Keep Britain Tidy. A local authority or beach owner must apply for a Blue Flag and to gain one the beach must currently meet 28 different criteria, only one of which is excellent water quality. Keep Britain Tidy uses the sample results taken by the Environment Agency during the previous year's bathing water season.

The other criteria include:

- Environmental education and information (such as displays of maps)
- Environmental management (adequate waste bins)
- Safety and services (lifeguards and life rings).

The awards are announced in May, just before the start of the bathing season.

How you can help

Two-thirds of sewer blockages are caused by things that should not be flushed down toilets, such as wet wipes and sanitary products. It costs South West Water £4.5million each year to clear around 8,500 blockages on the sewerage network.



Blockages can cause sewers to back up and overflow, potentially harming streams, rivers and beaches. Cooking fat, oil and grease, which harden over time, can also play havoc with drains and should be put in the bin not the sink.

For more information see: southwestwater.co.uk/loveyourloo



Case study

South West Water has been working with Teignbridge District Council and the Environment Agency to support the council's Love Your Beach initiative. This has included contributing to posters, leaflets and advertising and attending awareness events. A £671,000 scheme to deliver even cleaner seas off Teignmouth was successfully completed by South West Water in time for the start of the official 2015 bathing water season.

Teignbridge District Council's Resorts Manager Sarah Leech said: "Teignbridge welcomes the investment from South West Water. This will significantly reduce the number of times that the overflow should discharge into the sea and in turn help Teignmouth Town beach achieve a 'sufficient' rating under new EU bathing water standards.

"However, we also need the people of Teignmouth to contribute by doing other really simple things like picking up after their dog and not feeding seagulls or pigeons – things which can also contribute to beach pollution.

"Residents, traders and visitors have been really supportive of the Love Your Beach campaign and we'd urge them to keep up the good work."

Teignmouth Town beach was at risk of being 'poor' at the end of the 2015 season but is likely to meet 'sufficient' following all of the hard work in the catchment.

For more information see: southwestwater.co.uk/evencleanerseas and teignbridge.gov.uk/beachesandresorts.