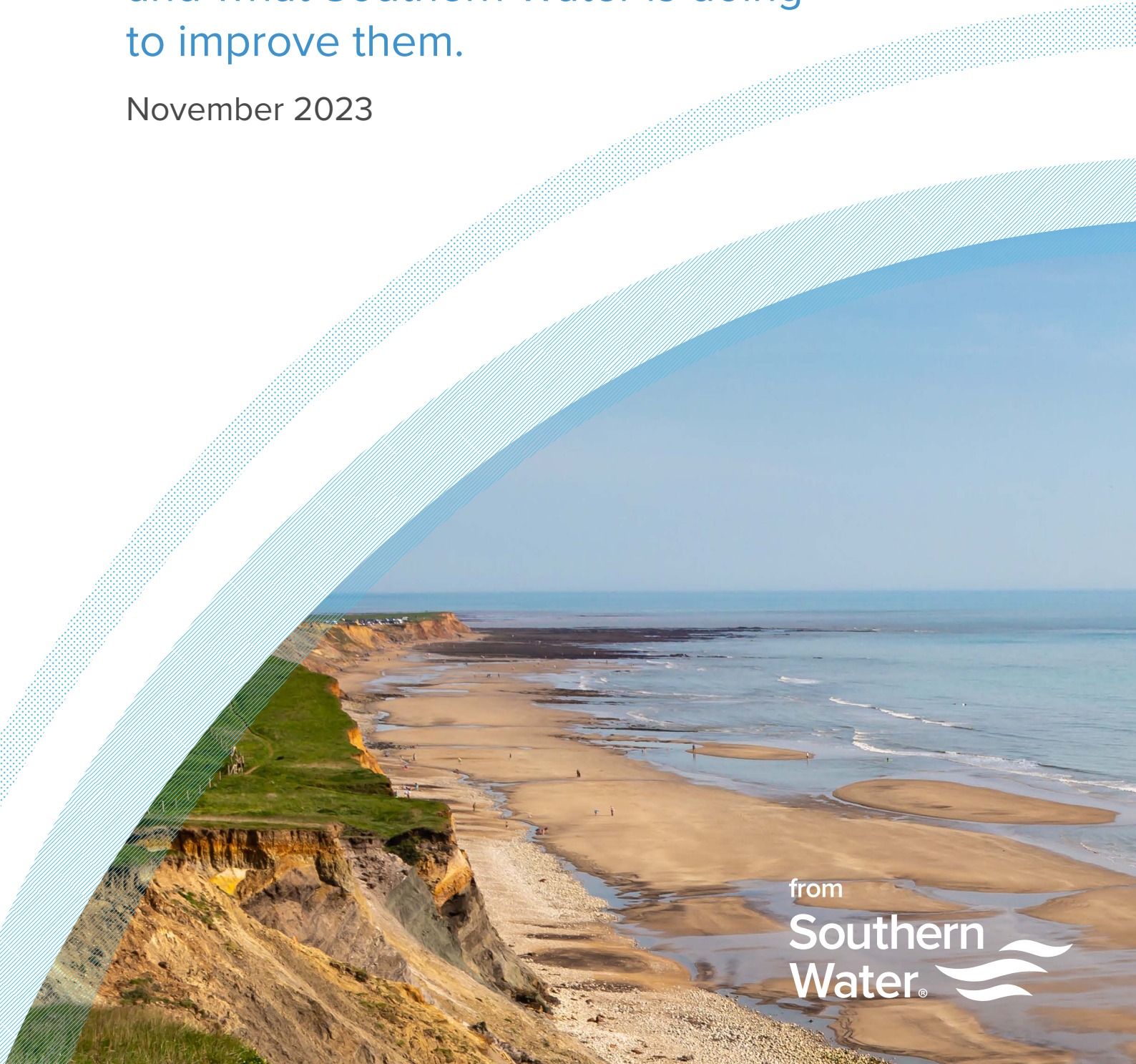




Bathing Water Report

An update on bathing water classifications and what Southern Water is doing to improve them.

November 2023



from
**Southern
Water** 

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Foreword

Clean seas mean so much more to our customers than seasonal bathing water classifications. The Environment Agency's annual assessment of designated Bathing Waters are of course important to understand the long-term health of our favourite swimming spots, but at Southern Water we know it's not enough to only focus on what happens during the bathing water season between May and September.



Our coastal environment is a precious resource throughout the year. It brings us pleasure. It provides our livelihoods, and it sustains our communities. That's why we take our impact on water quality extremely seriously.

Last year we told you about our work to better manage surface water run-off and our mission to reduce our use of storm overflows with our dedicated Clean Rivers and Seas Task Force. That work continues and is even more important given the torrential rain we have seen lately.

We've learned a lot from the pilot projects that the task force has been running across our region. We've since expanded the scope of our work and the number of people we now have working on projects in key locations across the South East, and we're delivering at scale. You can read all about the task force's new Open Water Improvement Lead and the improvements already made in the latest [Task Force Update](#).

You can also read our [Turnaround Plan](#) which addresses other factors we must improve on, such as our operational performance.

Cleaner seas do not come from resolving a single issue. Storm overflows can have an impact on water quality, however there are many other contributing factors including wet weather run-off from the road, farms and industry. Seabird and dog waste contribute too. We need to determine what's impacting water quality in a particular location in order to apply the best solution. Our individual Improvement Plans have been designed to do just that, as well as to identify where opportunities exist to work closely with our key stakeholders.

Storm overflows can have an impact on water quality, however there are many other contributing factors including agricultural run-off, seabird and animal matter and marine activity. We need to determine what's impacting water quality in a particular location in order to apply the best solution. This is why we're creating a bespoke framework to investigate the sources of reduced water quality and work with our partners to put it right.

Communication and collaboration are vital to protecting our coast. This report explains how we're working closer than ever before with our communities either through specific events or our innovative Citizen Science Programme to protect and improve our bathing waters.

Whether it's reducing our storm overflow use through nature-based solutions and operational improvement, having all our outfalls monitored by the end of 2023, developments to water quality monitoring and testing, or resolving sewer misconnections at a local level, we'll work extremely hard to play our part. And we're committed to doing everything we can to ensure a healthy and resilient future for our coastline.

Bob Collington
Managing Director for Wastewater

Event Duration Monitors (EDMs)

Event duration monitoring helps us to understand the performance of our storm overflows. It is a vital part of our response to managing their frequency and to reduce our impact on bathing water quality.

Monitors are placed on storm overflows, which trigger an alarm during heavy rain when levels reach a pre-determined point. We then know that a storm release is underway. The monitors can tell us how often releases occur and we can use that information to analyse the effectiveness of our network.

Event Duration Monitoring provides more clarity to our engineers and means we can more proactively manage solutions.

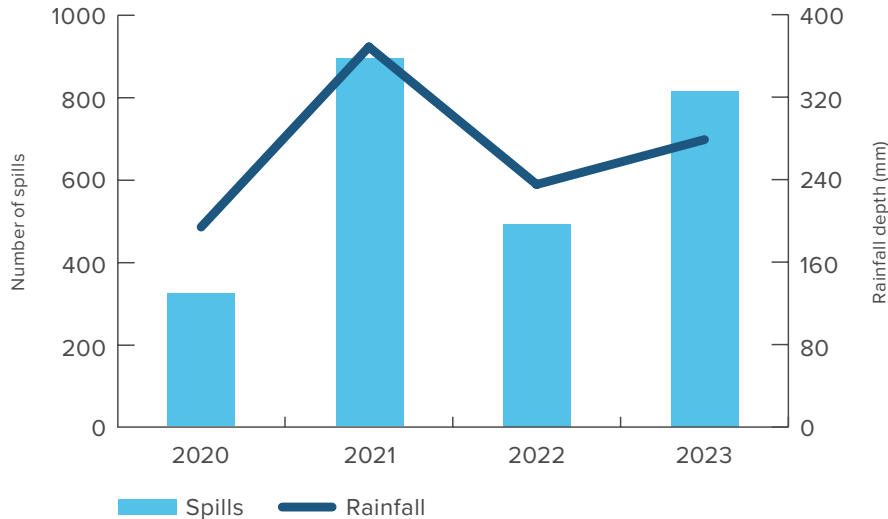
We now have greater than 99% Event Duration Monitoring installed, which will be 100% by the end of December this year. We share the data produced by the monitors with the Environment Agency annually and via our Beachbuoy customer webapp.

This year we have reported to the Environment Agency that there was a total of 829 storm overflow release events. That's increased since last year, but we have seen a significant increase in rainfall compared to 2022, which was a relatively dry year.

The best way to reduce the use of storm overflows is to slow the flow of rainwater entering the sewer system during these rain events, so the system does not become overwhelmed. To do this, we're prioritising sustainable and nature-based solutions to tackle the issue long-term while also protecting the environment.

Rainfall vs storm overflow releases during the 2023 bathing season

Source: National River Flow Archive/UK Centre for Ecology and Hydrology



Note: Groundwater levels at the beginning of the season were exceptionally high, increasing the impact of each rainfall event and increasing the spill count

Bathing water classifications 2023

The 2023 classifications present a mixed picture. Eastbourne is now classified as Good from its Sufficient class in 2022. And Normans Bay has improved to Excellent this year from good last season. But Littlestone and Southsea East have joined St Mary's Bay and Bognor Regis Aldwick in the Poor category.

There are several considerations.

Analysis of the operation of overflows and high concentration bathing water results shows that 87% of high concentration samples were not collected within 72 hours of an overflow. Storm overflows are not a major contributor factor in bathing water quality.

However, there are some locations in which our sewers are being assessed and repaired if needed.

We're also working closely with the relevant local authorities whose bathing waters are Poor and Sufficient in this year's classifications. Private drainage and cess pit management are among several factors we are working together to resolve.

Misconnections are a issue that our dedicated team find in almost every area. We're also trying to understand whether record sea temperatures and large deposits of seaweed may have contributed to a spate of high samples taken at the end of August and September, which had a particular impact on the Kent coast.

A number of bathing samples from the 2023 season have been sent for DNA analysis all of which identify seabird as well as human markers.



Frequently asked questions

<p>Does Southern Water have anything to do with the process in which bathing waters are classified?</p>	<p>No. Our assets may affect bathing water quality but the process of establishing bathing water classifications is owned entirely by the Environment Agency and DEFRA.</p>
<p>How do we know when it's safe to swim after heavy rain?</p>	<p>Southern Water can't advise about whether it's safe to swim. We can only let people know if we have released through our storm overflows, which we do via our Beachbuoy service. This information, along with other external sources, can help inform the public about the water quality on that day. The local authority is responsible for public health. If they believe the bathing water is unsafe to swim, they'll put signs on the beach to inform the public.</p>
<p>What are you doing to improve bathing water quality?</p>	<p>We are prioritising the bathing waters in the poor and sufficient classifications. We are already investigating possible misconnections in Bognor Regis Aldwick, Littlestone and St Mary's Bay. Work is underway in Southsea East to resolve private drainage issues. And we're making sure our assets, such as sewers and pumping stations, are operating as they should be in Deal, Dymchurch, West Bay Westgate, Folkestone, Broadstairs Viking Bay and Bexhill. We're also working with councils and community groups, such as SOS Whitstable and Swim the Wight, via an extended water quality testing programme to increase our understanding of bathing water quality throughout the year.</p> <p>We are reducing the use of storm overflows through the Pathfinder projects being led by our Clean Rivers and Seas Task Force and we are redeveloping our innovative BeachBuoy spill notification system, which will be re-launched before next Bathing Season.</p>
<p>Is Southern Water responsible for bathing water quality?</p>	<p>We have a large part to play but there are lots of other factors that can impact the quality of water, such as agricultural run-off, seabird and animal matter and marine activity. There are 84 designated bathing waters across our region. Each of them is managed by a local authority who have ultimate jurisdiction over them.</p>
<p>What can impact bathing water quality?</p>	<p>Water quality is affected by several factors. Our performance of course is significant. But we also must consider the impact of agricultural run-off, seabird and animal matter, and marine activity such as yachts and ships. We all have to take a holistic approach to protecting the quality of bathing water, which includes everything from what we are putting down our toilets and leaving on the beach as well ensuring our assets are working properly. Storm overflows have an impact too but we are addressing them in the Clean Rivers and Seas Plan.</p>
<p>How do I know about bathing water quality outside of the bathing water season?</p>	<p>Although a lot of us like to enjoy the water year-round, the Environment Agency only tests for water quality during the bathing season: May through to September. But we know that our customers use the sea throughout the year and we're trying to develop ways to fill the gap on behalf of our coastal communities.</p> <p>Citizen Science: We provided water quality testing kits to groups and councils on the Isle of Wight and in Whitstable so they can take regular samples in their area. We'll soon be extending this project to two further locations.</p> <p>Water Quality Buoys: Last year we launched two real-time water quality testing buoys with technology that hasn't been deployed in this way before. If successful, lessons from this project may be used to inform future schemes.</p>

Case study: Managing misconnections to improve bathing water in Bognor Regis

Bognor Aldwick is currently classified as a Poor bathing water and has been since the last classifications were made at the end of 2022.

It is likely to remain so until 2025 due to the way in which Bathing Water Classifications are determined. Each bathing water is classified as Excellent, Good, Sufficient or Poor based on a calculation of four years' sample analysis; what was collected in 2019 will impact this year's classification, for example.



Actions:

Southern Water has been working in Bognor Aldwick for many months. Our Misconnection Team has carried out sewer investigations, using cage monitoring and manhole surveys, in over 100 locations. They have discovered and resolved five foul and grey water misconnections. They also identified a leaking foul sewer which has now been lined. The team works closely with Arun District Council and the Environment Agency in a partnership approach to tackle possible sources of pollution wherever they are discovered.

Since we began working intensively to improve water quality at Bognor Regis Aldwick, the bathing season samples have shown a reduction in bacterial load. The samples collected during the 2023 season would have seen the bathing water classified as sufficient if they were made on a yearly basis. The work will continue throughout the winter.

Extensive work is ongoing to improve bathing water quality

Several Southern Water departments are involved in improving bathing water quality. We're working hard to better inform the public about the challenges faced and collaborate with partners in the community.

Misconnections update:

The misconnections team have carried out investigations in at least eight locations this year. They have discovered leaking private foul sewer drainage metres from the shoreline, overflowing cess pits, damaged sewers, and over a dozen foul and grey water misconnections. They have lined sewers in Hastings, worked with a care home in Bexhill in which they found three misconnected toilets, and are working in priority areas including Littlestone and Southsea.



Operational improvements:

A combination of investigations via CCTV, sewer relining and innovative solutions mark the enhancements at several bathing water locations. We have carried out a series of sewer CCTV activities to assess our sewers including 609m of sewer in Ramsgate, 80m in Lancing Beach Green and 1.3km in Pevensey. We have programmed £110,000 worth of lining, along with £3,200 for planned CCTV surveys in Broadstairs Viking Bay. We are relining 13 sewers in Hastings and 16 in Lancing Beach Green. In total we will be investigating over 6km of sewer via CCTV and relining 60 sewers across our region.

Storm overflow reduction:

The [Clean Rivers and Seas Task Force](#) is working to significantly reduce storm overflows by 2030. Read our latest [Task Force Update](#) on what we've achieved so far this year and be sure to visit our new [interactive map](#) to see all our planned improvement projects to reduce storm overflows and the impact they cause.



Water quality testing:

Year-round water quality testing is being trialled via our Citizen Science Programme in several locations. We've provided specialised equipment and training to a local council, campaign group, and wildlife sanctuary to further our understanding of water quality by conducting their own sample routine. We have two groups on the Isle of Wight and Whitstable, who are set to be joined by two more in the next few weeks, in a trial that recognises our customers' need for more information about their local area. We're using the trial period, which will pause in March 2024 to test the suitability of emerging technology and we are facilitating direct conversations between our groups and the manufacturers.

Extensive work is ongoing to improve bathing water quality continued



With a new software comes a new name, which we'll be announcing soon. In the meantime, we're conducting independent reviews with specialists in four different subjects: Tidal Modelling, Bathing Water Quality, User Engagement, and Software and Systems. We'll be publishing these reviews shortly.

Open Water Improvement Lead:

Tom Gallagher has joined the Clean Rivers and Seas Task Force as the company's new Open Water Improvement Lead. Tom's background is in communications and stakeholder engagement and he's leading our water quality strategy. Tom is working closely with the Environment Agency, our local authority partners and community groups to meet the challenges that define river and bathing water quality.

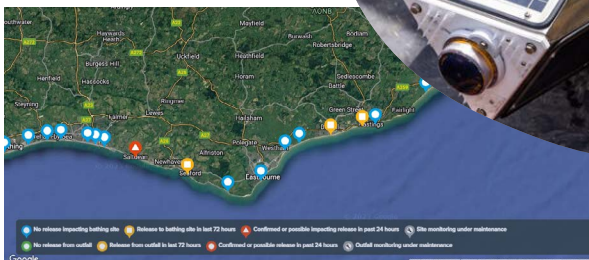
Water quality buoys:

These buoys automatically measure the water quality every few minutes. We'll openly share the results with the public once we've finished quality testing the process. If successful, lessons from this project may be used to inform future schemes.



Engagement:

There are 84 designated bathing waters in the Southern Water region, which are looked after by 21 local authorities. Currently there is over half a dozen local authority steering groups that representatives of Southern Water contribute to. We share operational developments, network analyses and pool resources to tackle water quality improvement together. We're under no illusions, we can't do this alone. Our partnerships play a vital role in allowing us to make the changes needed to protect our environment on a larger scale, as well as helping us to raise awareness and rally for change across the entire industry and UK governance.



Beachbuoy:

If you haven't heard of [Beachbuoy](#), it's our interactive, near real-time web app designed to help you make the most of the South's amazing beaches and enjoy the waters, while staying informed of any storm overflow releases nearby.

We know the importance of transparency when it comes to storm overflows and the environment, so we're revamping Beachbuoy and releasing a new version in spring 2024, which will include all inland storm overflow outfalls, have better usability, and a host of other features co-created with our customers and stakeholders.

Improvement plans:

Each improvement plan comes with a series of actions which we track and monitor. Our focus is on those bathing waters in the Poor and Sufficient classification and work is already underway. We are working closely with the Environment Agency and Folkestone & Hythe Council to tackle the issues at Littlestone and St Mary's Bay including sediment sampling and sewer CCTV. We're also engaged with Portsmouth Council to progress private drainage issues close to waterfront.

In Summary

We hope this report provides you with an overview of the work we've been doing, but rest assured there's even more going on behind the scenes.

For example, we're working with experts to assess the impact of sea temperatures during what was the warmest August on record in 2023. As climate change continues to have an impact on our daily lives, so our understanding of what it means for our rivers and seas will need to keep up.

It is our responsibility to provide our customers with an efficient network of sewers, pumping stations and treatment works but also to protect and improve the environment within which they operate. We take this very seriously and are committed to improving our environmental performance record and limiting our impact.

More information

[Flow and Spill Reporting](#)

[Storm overflows](#)

[Beachbuoy](#)

[Clean Rivers and Seas Plan](#)

[Task Force Update](#)

[Pathfinder projects](#)

[Pathfinder update](#)

[Our Annual Report](#)

[How to get involved and help 'slow the flow'](#)

Appendix

Bathing water classifications 2023

The Environment Agency samples designated bathing waters every week during the bathing season, from May to September. They measure the number of bacteria in every sample and apply it to a four-year data set. A calculation is made and, from it, the bathing water classifications are established. A bathing water can be classified as Excellent, Good, Sufficient or Poor.

Bathing Water	2022	2023	Change
Beachlands Central	Excellent	Excellent	—
Beachlands West	Excellent	Excellent	—
Bembridge	Excellent	Good	↓
Bexhill	Sufficient	Sufficient	—
Birling Gap	Excellent	Excellent	—
Bognor Regis (Aldwick)	Poor	Poor	—
Bognor Regis East	Good	Good	—
Botany Bay, Broadstairs	Excellent	Excellent	—
Bracklesham Bay	Excellent	Excellent	—
Brighton Central	Good	Good	—
Brighton Kemptown	Excellent	Excellent	—
Broadstairs, Stone Bay	Excellent	Good	↓
Broadstairs, Viking Bay	Good	Sufficient	↓
Calshot	Excellent	Excellent	—
Camber	Good	Good	—
Christchurch Bay	Excellent	Excellent	—
Colwell Bay	Excellent	Excellent	—
Compton Bay	Excellent	Excellent	—
Cowes	Excellent	Excellent	—
Deal Castle	Good	Sufficient	↓
Dymchurch	Good	Sufficient	↓
East Cowes	Excellent	Excellent	—
Eastbourne	Sufficient	Good	↑
Eastney	Excellent	Good	↓
Eastoke	Excellent	Excellent	—
Felpham	Good	Good	—
Folkestone	Good	Sufficient	↓
Gurnard	Good	Good	—
Hastings Pelham Beach	Good	Good	—
Herne Bay	Excellent	Excellent	—
Herne Bay Central	Good	Good	—
Highcliffe	Excellent	Excellent	—
Hillhead	Excellent	Good	↓
Hove	Excellent	Excellent	—

Appendix continued

Bathing water classifications 2023 continued

Bathing Water	2022	2023	Change
Hythe	Excellent	Excellent	—
Joss Bay, Broadstairs	Excellent	Excellent	—
Lancing, Beach Green	Excellent	Excellent	—
Lee-on-Solent	Excellent	Excellent	—
Lepe	Excellent	Excellent	—
Leysdown	Good	Good	—
Littlehampton	Good	Good	—
Littlestone	Good	Poor	↓
Margate Fulsam Rock	Excellent	Excellent	—
Margate The Bay	Excellent	Good	↓
Middleton-on-sea	Excellent	Excellent	—
Milford-on-sea	Excellent	Excellent	—
Minnis Bay, Birchington	Excellent	Excellent	—
Minster Leas	Excellent	Excellent	—
Norman's Bay	Good	Excellent	↑
Pagham	Excellent	Good	↓
Pevensey Bay	Good	Good	—
Ramsgate Sands	Good	Good	—
Ramsgate Western Undercliffe	Good	Good	—
Ryde	Good	Good	—
Saltdean	Excellent	Excellent	—
Sandgate	Excellent	Excellent	—
Sandown	Excellent	Good	↓
Sandwich Bay	Excellent	Good	↓
Seaford	Excellent	Excellent	—
Seagrove	Excellent	Excellent	—
Selsey	Excellent	Excellent	—
Shanklin	Excellent	Excellent	—
Sheerness	Excellent	Excellent	—
Shoreham Beach	Excellent	Excellent	—
Southsea East	Sufficient	Poor	↓
Southwick	Excellent	Excellent	—
St Helens	Excellent	Excellent	—
St Leonards	Excellent	Excellent	—
St Margaret's Bay	Excellent	Excellent	—
St Mary's Bay (Kent)	Poor	Poor	—
St Mildred's Bay, Westgate	Excellent	Excellent	—
Stokes Bay	Excellent	Excellent	—
Tankerton	Excellent	Excellent	—

Appendix continued

Bathing water classifications 2023 continued

Bathing Water	2022	2023	Change
Totland Bay	Excellent	Excellent	—
Ventnor	Excellent	Excellent	—
Walpole Bay, Margate	Good	Good	—
West Bay, Westgate	Good	Sufficient	↓
West Beach, Whitstable	Excellent	Good	↓
West Wittering	Excellent	Excellent	—
Westbrook Bay, Margate	Excellent	Excellent	—
Whitecliff Bay	Excellent	Excellent	—
Winchelsea	Excellent	Good	↓
Worthing	Good	Good	—
Yaverland	Excellent	Excellent	—



Find further information at southernwater.co.uk

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The logo graphic for Southern Water, featuring three stylized, wavy lines that represent water.