

# THE RIPPLE EFFECT

Citizen science insights into bathing water regulation



**SURFERS  
AGAINST  
SEWAGE**



# FOREWORD

Our beaches, rivers, and coastal waters are under threat. Industry, pumped up by profit and emboldened by weak regulation, is dumping **SEWAGE** and other **POLLUTANTS** into the very spaces where we swim, surf, and play.

Our so-called Bathing Water Regulations, designed to protect our health, are failing. They're outdated, inconsistent and blind to the reality of how we use our coastal and inland waters.

But hope lies in the power of people. People who won't settle for the polluted status quo or the excuses of those in power. This report is a testament to all those citizen scientists and community campaigners who are taking up the fight. They've waded, undaunted, into polluted waters to collect samples, expose the truth, and demand accountability. Thanks to them, we now know the shocking scale of pollution: 77% of sites tested in 2024 failed to meet minimum water quality standards.

To every single person who made this report possible, thank you. Thank you for giving up mornings, evenings and weekends to collect and test water samples. For tirelessly counting water users, building thriving communities, and campaigning with such tenacity. Without you, and the work of other fantastic citizen scientists and communities applying for bathing water status, the collection, analysis and interpretation of this data wouldn't have been possible.

Let's be clear. The state of our blue spaces is not just a failure of enforcement and legislation; it's a betrayal of our collective right to clean water – our right to dip, swim or surf without getting sick. Yet the history of our campaigning tells us that change is possible. That the ripples of our individual efforts can converge into an unstoppable wave. So, let's keep fighting this fight, together.

Together, our actions and evidence – like those collated in this report – can force the radical reform of regulations. To mandate year-round testing. To confront emerging threats like microplastics and antimicrobial resistance. And to ensure all water users are counted equally. The public demands a new era of transparency for our wild waters and we are determined to deliver. It's time to lift the lid and weaponise what we find in the fight for the future of our rivers, lakes and seas.

Thank you for standing with us.

**Dani Jordan, Director of Campaigns and Communities,  
Surfers Against Sewage**

**THIS REPORT IS A TESTAMENT TO  
ALL THOSE CITIZEN SCIENTISTS  
AND COMMUNITY CAMPAIGNERS  
WHO ARE TAKING UP THE FIGHT.**

- Dani Jordan





THE PRACTICE OF DISREGARDING  
CERTAIN WATER SAMPLES  
DURING POLLUTION EVENTS  
DISTORTS THE TRUE PICTURE  
OF WATER QUALITY AND  
THE RISKS TO PUBLIC HEALTH.

# INTRODUCTION

The Bathing Water Regulations in the UK are **FAILING** to **PROTECT** water users. They must be radically and urgently updated.

This report draws on the efforts of citizen scientists and local communities to highlight fundamental flaws in the way bathing waters in the UK are designated, tested and classified.

## Key findings:

- 77% of the sites tested by citizen scientists in 2024 **failed to meet minimum water quality standards.**
- The current regulatory system **fails to protect all recreational water users**, including kayakers, surfers, and paddleboarders, by excluding them from the bathing water designation process.
- **The testing period is too short**, missing important data during the winter and autumn months when pollution levels can spike.
- Emerging pollutants, such as PFAS (forever chemicals) and antimicrobial-resistant bacteria, **are not tested for under current regulations.**

We reveal that under the current Bathing Water Regulations' testing regime, bathing waters remain untested for 32 weeks of the year. That the regulations' assumptions about water use are fundamentally flawed (**spoiler alert: it's not just swimmers**). That there are a vast range of emerging pollutants and threats unaccounted for by testing. And that the practice of disregarding certain water samples during pollution events distorts the true picture of water quality and the risks to public health.

Bathing Water Regulations need to be updated, to:

- 1 **TEST WATER QUALITY ALL YEAR ROUND**
- 2 **COUNT ALL RECREATIONAL WATER USERS WHEN DECIDING WHETHER TO DESIGNATE A BATHING SITE;**
- 3 **TEST FOR EMERGING POLLUTANTS.**

These changes are vital to protect public health, empower local communities, and ensure that the UK's water quality monitoring system is fit for purpose in the 21st century.

By adopting the recommendations set out, the UK can build a robust, year-round monitoring system. One that reflects the reality of how people use water, supports better water quality management, and ultimately safeguards the health of millions of water users.



# BATHING WATERS: A SNAPSHOT

**UK BATHING WATER QUALITY IS  
AMONG THE WORST IN EUROPE,  
WITH 8% OF ENGLAND'S BATHING  
WATERS RANKED AS 'POOR'.**

Photograph by: E Stoner

## Back to Basics: What are Bathing Waters?

Officially designated bathing waters are the only blue spaces where water quality is regularly monitored for its effect on human health. Bathing water sites are currently those beaches, river and lakes which are most often used by swimmers.

### Monitoring and classification

When a bathing water site is designated, the environmental regulator is required to test the water quality at each designated bathing water. They only test during the bathing season. In England and Wales, it's May to September. In Scotland and Northern Ireland, it's June to September.

These water quality samples are then analysed, and the results over the course of the bathing water season are used to classify the water quality at a site. These classifications are:



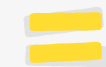
#### EXCELLENT

The highest, cleanest  
water quality<sup>1</sup>



#### GOOD

Generally good water  
quality



#### SUFFICIENT

The water meets the  
minimum standards



#### POOR

The water has not met the  
minimum standards

## Water quality in England vs the EU

As of December 2024, 289 bathing waters in England were designated as 'excellent'. Yet, between May and September, there were 8,704 untreated sewage discharges into bathing sites in England.<sup>2</sup>

As a result, UK bathing water quality is among the worst in Europe. In 2023, 85.4% of bathing waters across the EU achieved 'excellent' status.<sup>3</sup> In England, only 64% got the same ranking.<sup>4</sup>

And while only 1.5% of EU bathing waters are ranked 'poor', in England 8% are.<sup>5</sup>

## How bathing waters link to law

If a bathing water is classified as 'poor,' then a sign advising against swimming will be displayed at the site. The regulator is legally obliged to take measures at the poor bathing water site to "prevent, reduce or eliminate the causes of pollution".<sup>6</sup> This legal requirement on polluters to clean up their act at a poor bathing water means bathing water status can be a tool for communities to drive change.

The creation of over 600 coastal bathing waters around the UK has led to 98% of these beaches meeting standards, up from just 27% in the 1990s.<sup>7</sup> As a result of bathing water status, we have started to see investments in water company infrastructure, resulting in inland river sites on the cusp of improvements in water quality. For example, campaigners Ilkley Clean River Group<sup>8</sup> secured a massive £60 million investment for improved sewage infrastructure because of their tireless campaigning for successful bathing water designation.<sup>9</sup>

<sup>1</sup> <https://environment.data.gov.uk/bwq/profiles/help-understanding-data.html>

<sup>2</sup> <https://environmentagency.blog.gov.uk/2024/11/29/regulatory-edm-2024-bathing-season-storm-overflow-data-analysed/>

<sup>3</sup> [https://www.theoep.org.uk/sites/default/files/reports-files/E03186003\\_OEP%20Bathing%20Water%20England\\_Accessible.pdf](https://www.theoep.org.uk/sites/default/files/reports-files/E03186003_OEP%20Bathing%20Water%20England_Accessible.pdf)

<sup>4</sup> <https://www.gov.uk/government/statistics/bathing-water-quality-statistics/2024-statistics-on-english-coastal-and-inland-bathing-waters-a-summary-of-compliance-with-the-2013-bathing-water-regulations>

<sup>5</sup> [https://www.theoep.org.uk/sites/default/files/reports-files/E03186003\\_OEP%20Bathing%20Water%20England\\_Accessible.pdf](https://www.theoep.org.uk/sites/default/files/reports-files/E03186003_OEP%20Bathing%20Water%20England_Accessible.pdf)  
<https://www.gov.uk/government/statistics/bathing-water-quality-statistics/2024-statistics-on-english-coastal-and-inland-bathing-waters-a-summary-of-compliance-with-the-2013-bathing-water-regulations>

<sup>6</sup> <https://www.legislation.gov.uk/uksi/2013/1675/regulation/13/made>

<sup>7</sup> <https://protectingwildwaters.org.uk/>

<sup>8</sup> <https://ilkleycleanriver.uk/>

<sup>9</sup> <https://www.ilkleygazette.co.uk/news/24755577.bathing-spot-ilkley-fails-water-quality-standards/>



**COMMUNITIES HAVE TAKEN MATTERS INTO THEIR OWN HANDS. THEY'VE BECOME CITIZEN SCIENTISTS, TESTING FOR POLLUTION AT THEIR LOCAL SWIM SPOTS THEMSELVES.**



## The communities fighting back...

The people who use these wild waters for recreation are the ones paying the price when they get sick from polluted waters. And they've had enough.

From the Friends of the Dart to Clean Mersey. From stream to estuary, river to coastline. Swimmers, surfers, anglers, dog walkers, councillors, business owners, landowners and local communities of all kinds are campaigning to improve local water quality. They want to protect public health and restore pride in local inland and coastal waters.

### How legislation hampers them

But outdated legislation – namely the Bathing Water Regulations – is failing to protect most water users. It's hampering local success and collaboration. So, to make the case for radical legislative reform, communities have taken matters into their own hands. They've become citizen scientists, testing for pollution at their local swim spots themselves.

These citizen scientists have revealed that 77% (10 of 13) sites tested do not meet minimum bathing standards and could pose a risk to water users' health. They reveal the official testing classifications set up to protect water users do not provide the full picture of what is happening in bathing waters.

In this report, we also highlight the out-of-date nature of the regulations by showing people are using the water in all seasons and in a variety of ways. We show 74% of people surveyed use the water throughout the year, and that over 60% of people using the water in 2023 took part in outdoor sports that were not swimming, but rather surfing, paddleboarding, angling and sailing.

## Our demands for change

The way bathing water sites are designated and how the testing regime works is in desperate need of an overhaul. Over 35 years of working on the beachfront – and supporting coastal and inland communities to get designation – have shown that we need:

### 1. YEAR-ROUND TESTING

Currently, bathing waters are tested for a few short months during the summer. But as water users, we know the water is being used year-round.

#### RECOMMENDATION:

The Bathing Water Regulations must be updated to test water quality all year round and provide water users with a clear picture of water quality.

### 2. MORE THAN SWIMMERS

Currently, the bathing water designation process only counts 'bathers' (swimmers) when determining whether a site should be designated. But the UK is a water sport-loving nation, with people using the water in a variety of ways.

#### RECOMMENDATION:

The Bathing Water Regulations must be updated to count all recreational water users when deciding whether to designate a bathing site.

### 3. TESTING FOR EMERGING POLLUTANTS

An increasing number of studies have highlighted that water users are becoming exposed to new and emerging pollutants, including heavy metals, microplastics, chemicals and anti-microbial resistant bacteria. The Bathing Water Regulations, however, only tests for Escherichia coli (E. coli) and intestinal enterococci.

#### RECOMMENDATION:

The Bathing Water Regulations must be updated to test for emerging pollutants

We dive into these demands in more detail later in the report.



# A CITIZEN SCIENTIST'S VIEW FROM THE WATER

## A robust citizen science programme

Our Citizen Science water quality programme works with communities across the UK to help them understand the state of their local water quality.

For many of these communities, this is the only testing that occurs at their favourite swim spots. So, it's the only source of the vital information they need to stay safe when using the water.

Between May and September 2024, citizen scientists collected weekly samples at 13 locations throughout the UK. Four of these locations are designated bathing waters: Figgate Burn, Traeth Benllech, Dale Bay and Watchtower Bay. The remaining nine locations are waterways that are well-loved by recreational water users. At these, communities either have plans to apply for bathing status or they currently do not meet the criteria to achieve bathing status.

At all locations, the samples were tested for two main types of bacteria: E. coli and intestinal enterococci. Because these bacteria thrive in the human gut, they're often found in untreated sewage and used to flag pollution in the water.

At the four existing bathing water sites, citizen scientists took samples reactively, either after heavy rainfall or when the Safer Seas and River Service showed an alert for untreated sewage. This reactive sampling was used to investigate trends to help determine the sources of pollution. This was on top of the weekly testing that the regulators already do.

## How the data is analysed

When we have all the data back from the lab, we analyse the results to determine a classification for each bathing water site based on the amount of bacteria found in those samples throughout the bathing season.

Both in our testing methodology and in calculating our results, Surfers Against Sewage uses the same methods that the Environment Agency uses in England.

But there's one key difference: unlike the Environment Agency, we do not leave out samples taken during short term pollution events.

## THE SCIENTIFIC PROCESS:

### 1 SAMPLING LOCATIONS

Water sampling is undertaken by community scientists at standardised sampling locations.

### 2 COLLECTING THE SAMPLE

A water sample is collected from the beach, riverbank or bridge using a sampling pole and stainless steel beaker. The beaker rinsed three times to ensure the sample collected is representative of the water body.

### 3 HANDLING THE SAMPLE

Once the sample is collected, 500mL is decanted into a sterile sampling bottle and labelled with the date and time.

### 4 TRANSPORTING THE SAMPLE

The sample is then placed in a cool box for storage before being transported to the laboratory.

### 5 NOURISHING THE NASTIES

Sample analysis is undertaken at an accredited microbiology testing laboratory, where the water sample is placed on a petri dish containing a selective agar, encouraging only the bacteria of interest to grow, before being incubated overnight at 37°C.

### 6 COUNTING THE COLONIES

The number of colonies (each colony representing a single bacterial cell) are then counted to determine the number of bacterial cells present within the sample.



# CITIZEN SCIENCE: THE DATA

## The scientists

Citizen scientists are testing at:

- River Avon, Stratford
- Camel Estuary
- Caswell Bay, Gower
- Dale Bay, Milford Haven
- Figgate Burn, Portobello
- River Great Ouse, Bedfordshire
- Jubilee River
- River Thames, Boulters Lock
- River Thames, Bourne End
- River Thames, Central Windsor
- River Thames, Teddington
- River Thames, Shepperton
- River Soar, Leicestershire
- River Mersey, New Brighton
- Seaton Sluice, Seaton
- Traeth Benllech, Ynys Mon
- Trevaunance Bay Stream, St Agnes
- Watchtower Bay, Barry Island

Some of these locations aren't in the report as they have recently started their citizen science journey and currently have small data sets. But we look forward to featuring it in future reports. Their dedication to collecting water quality data is instrumental in highlighting the state of our waters and the urgent need for systemic change.

The findings show popular recreational waters across the UK are blighted by pollution.

**77% of locations do not meet minimum standards.**

Of the 13 locations that were investigated throughout the bathing water season, we found:

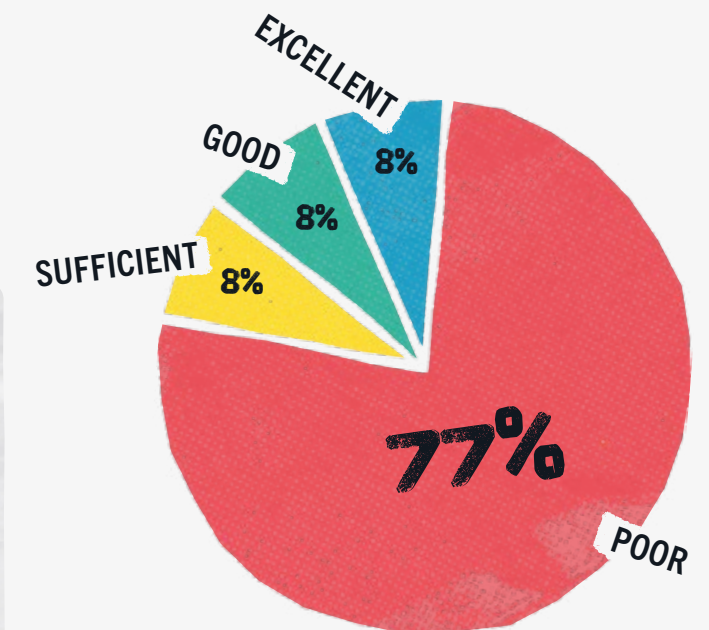
	Poor 🚫	Sufficient 🟡	Good 👍	Excellent ★
Inland	7	0	1	0
Coastal	3	1	0	1
Total	10	1	1	1

Water quality classifications and locations for each of the sites investigated as part of the SAS 2024 citizen science programme.



## A CITIZEN SCIENTIST'S VIEW FROM THE WATER

Overview of classifications for 13 locations investigated by SAS citizen scientists throughout the 2024 bathing season.



## What it means

Put simply, this means that at the majority of sites we tested, the regulator would advise against bathing because of the risk to public health. This is unacceptable.

We know from our testing that the risk to human health becomes vastly elevated after incidents of pollution from raw sewage discharges or run-off events. In many locations tested, water quality was not consistently poor. Rather, it was these large spikes in pollution caused by sewage discharges and other pollution sources that meant these locations had unsafe levels of bacteria.<sup>10</sup> This offers a clear solution: if water companies put an end to their pollution, the quality and safety of our waters will improve.

<sup>10</sup> Bathing water classifications are determined using a statistical technique which accounts for all of the data throughout the sampling period, as well as the variation within that data, to account for the risk of higher results occurring. This means that some results which have very high levels of bacteria in them can result in a worse overall classification, even if there are many samples collected which reach a higher standard.



# ST AGNES CHALLENGES THE REGULATORS



Fed up with regularly spotting sewage discharged into the water, the St Agnes Water User Group took it upon themselves to start testing the water quality at local swimming and surf spot at Trevaunance Cove.

Whilst the Environment Agency officially rank the beach as excellent, members of group quite literally smelt something dodgy. Testing the water over a sixteen-week period between March and August 2024, the group's results showed a dramatic contrast to tests undertaken by the Environment Agency (EA), rating the water as 'poor' compared to the EA rating of 'excellent'.

Dianne Dunne, co-founder of the St Agnes Water Users Group and member of the local Bluetit cold water swimming group, said: "We were genuinely shocked to find the huge discrepancy between our own analysis of the water quality and that of the Environment Agency. Water users are entitled to be accurately informed about whether or not it's safe for them to surf or swim in the sea."

Benjamin Nesbit, co-founder of the group added: "We want the Environment agency to extend the bathing season so that they monitor the water quality all year round.

Our beaches are in use all year round by swimmers, surfers, children, dog walkers and a wide range of water sports."

## DEMAND 1:

# YEAR-ROUND TESTING

## The change we need

Our waterways are used all year by many recreational water users. The months of autumn, winter and spring bring the best swell for surfing along the UK coastlines. Cold-water therapy and numerous studies have shown the benefits of cold-water dips for mental and physical wellbeing, and we've seen an explosion in the number of swimmers taking to lakes, rivers and coasts during the winter months. In spring, when the rivers are flowing fast and full from winter rain and snow melt, kayakers and anglers take to the water. But as they do, they put their health at risk.

We know bathing waters are only monitored for up to 20 weeks a year in the bathing season for England and Wales, and up to 15 weeks for Scotland and Northern Ireland. This means that water users have no information about the levels of bacteria they are exposed to in the water for most of the year.

Number of weeks tested for bathing water quality.

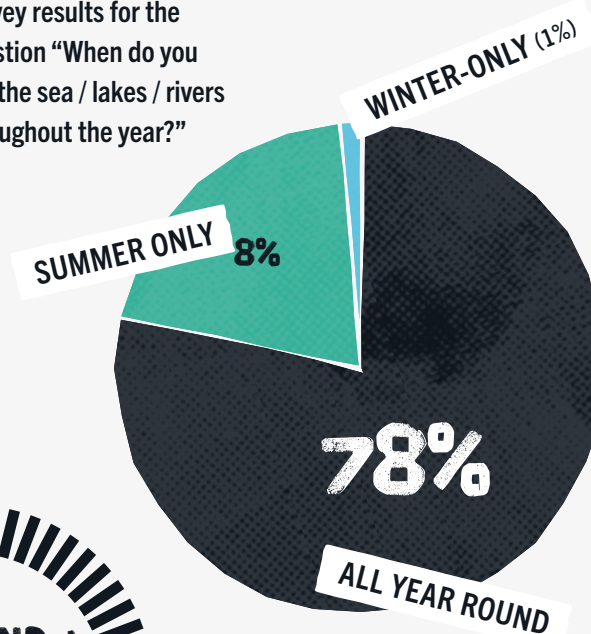


## Why it matters

### Cold Water Dipping

Each year Surfers Against Sewage runs a fundraising campaign reaching out to a community of committed dippers, who choose to take a cold dip every single day in October. This year 1461 people took part. Participants from this year responded to a survey, which showed 78% used their favourite water spots all year.

Survey results for the question "When do you use the sea / lakes / rivers throughout the year?"





# YEAR-ROUND TESTING AT JUBILEE & BOULTERS LOCK RIVER THAMES



For Maidenhead resident, Sean Haywood, the River Thames has been a source of joy for nearly 20 years. Swimming first in Jubilee River and then the Thames, Sean and his wife are part of a community of wild swimmers who love the water.

But just a few kilometres from their swim spot near Boulters Lock is the Marlow Sewage Works. Sean knew that untreated sewage spills were contaminating the water, but not when or how dangerous it was to their health. He asked Thames Water if they could be notified about untreated spills. After months of dragged-out, minimal correspondence, the group needed water quality information throughout the year – and they weren't getting it from Thames Water.

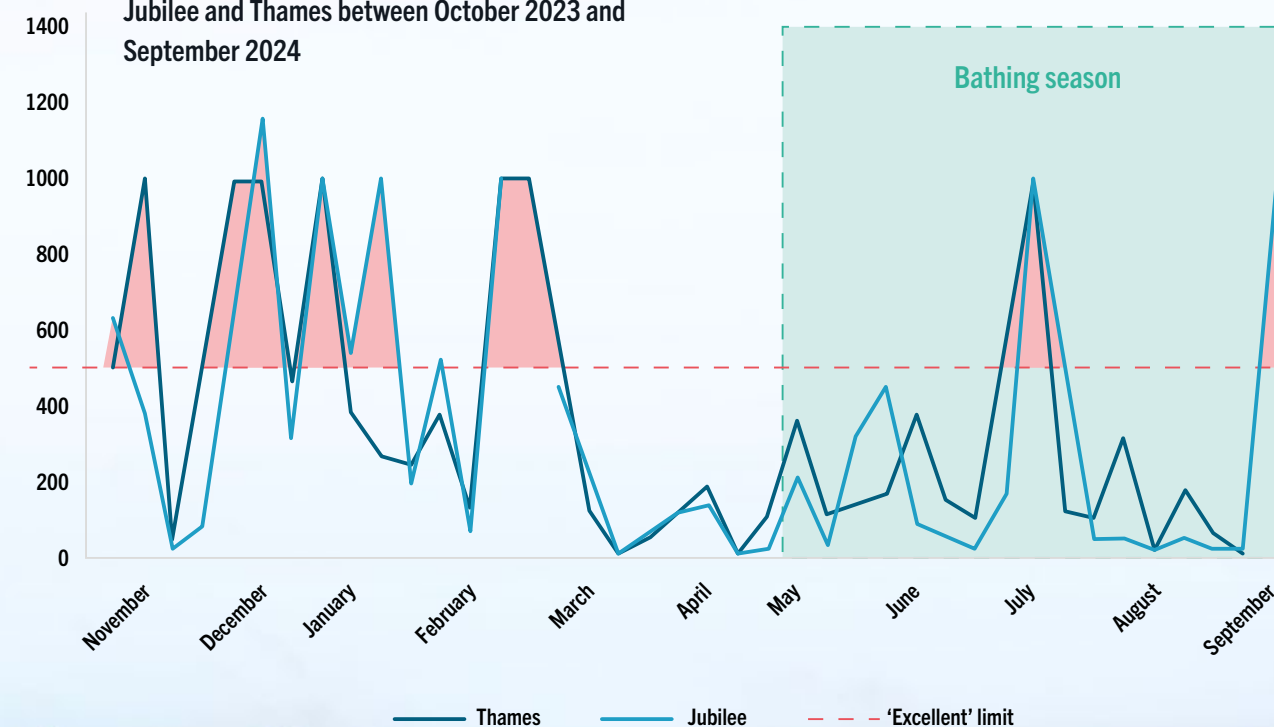
## He decided to take matters into his own hands.

"The only way for us to monitor any issues is by measuring the E. coli count ourselves. The official bathing season dates set by Defra are quite arbitrary, and since we swim well before and after those dates, we need water quality information throughout the year."

Sean and a small group of dedicated volunteers started weekly water testing at two of their favourite spots on the rivers Thames and Jubilee, between October 2023 and September 2024.

What they found shocked them. All year round, these spots were ranked poor and could therefore pose a risk to their health. They also found a big difference in water quality inside and outside of the bathing season. Between May and September, 11% of results on both the Thames and Jubilee were considered poor. In comparison between October and May, the number of unsafe samples doubled to 22%. This means that outside the bathing season, Sean and his community of dedicated swimmers were twice as likely to be put at an elevated risk to pollution when they were using the water. (see Figure 5).

Graph showing E. coli levels at two sites on the rivers Jubilee and Thames between October 2023 and September 2024



## OUR RECOMMENDATION:

Water users are enjoying the water year-round but are unknowingly being exposed to much higher bacteria levels outside the bathing water season. The Bathing Water Regulations must be updated to test water quality all year and provide water users with a clear picture of water quality.

The work of Sean and his team of dedicated volunteers supports work already undertaken by the Environment Agency in a pilot study in 2024. The internal study, unveiled by Greenpeace UK, found bathing water quality at some of England's highest-rated beaches declined significantly during the autumn and winter months with much-higher levels of E. coli and intestinal enterococci found at half of the beaches in the trial.<sup>11</sup>

<sup>11</sup> <https://unearthed.greenpeace.org/2024/10/02/winter-bathing-water-quality/>





## DEMAND 2:

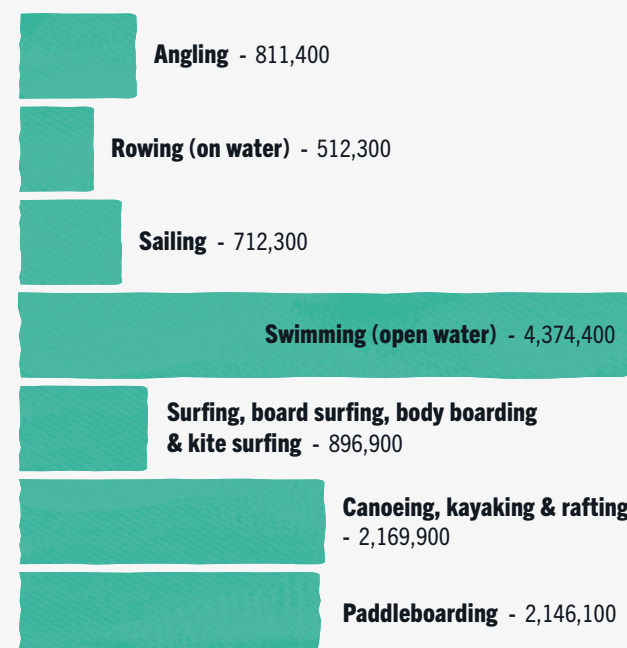
# MORE THAN SWIMMERS

## The change we need

When applying for bathing status, the application requires evidence of the numbers of bathers, using the stretch of river, beach or lake. The definition of ‘bathers’ is very limited, accounting only for people swimming. To achieve designation, a site must show a minimum of 100 bathers over a four-hour surveyed period, and this excludes events adding more limitations to what spots can be designated as bathing waters.<sup>12</sup>

From surfers to sailors, kayakers to kitesurfers, from elite athletes competing in the water all year, to the dippers taking on the traditional new years day dip, every water user deserves the protection given through bathing water regulation.

### Individuals’ participation in open water activities in the last year



## Why it matters

### Who is using the water?

Water usage since the COVID pandemic has risen dramatically, and the numbers as well as types of water sports people take part in continue to grow.

Last year alone, 11.6 million people took part in some form of outdoor water sport - of these, well over half (7.2 million) took part in non-swimming water sports like rowing, sailing and canoeing.<sup>13</sup>

### A bustling water events calendar

There are a huge number of both elite and amateur water sporting events that take place around the UK annually that show just how much we’re using the water.

We looked at over 70 of the biggest water-based events of the year – from swimming races like the Great North Swim, to sailing regattas and swim festivals – to show why the Regulations are wholly inadequate.

Only 30% of the events were swimming-based. Just under half (40%) took place outside of the May-September bathing season. Although just a snapshot of the huge range of events taking place, these events alone involved an estimated 130,000+ water users. For a full breakdown, see Table A1 in Appendix.

<sup>12</sup> <https://www.gov.uk/government/publications/bathing-waters-apply-to-designate-or-de-designate/designate-a-bathing-water-guidance-on-how-to-apply>

<sup>13</sup> <https://activelives.sportengland.org/Result?queryId=131149>

## CASE STUDY

# THE RIVER DEE



The River Dee exemplifies the short-sightedness of the exclusive criteria for designation.

A stretch of the river was unsuccessful with its application in 2023 as it **failed to meet the 100 bathers requirement.**

However, this verdict did not take into consideration the other water users (paddleboarders, kayakers, anglers and rowers) that exceeded the number required, nor did it consider well-established sporting events. For example, this criteria does not acknowledge the 273 swimmers participated in the 2023 Dee Mile, an event dating back over a hundred years; nor does it recognise the 189 participants of the Deva Triathlon that year.





# TOXIC TROPHY



In October 2024, Langland Board Riders Club (LBR), the Welsh Surf Federation (WSF) and SAS collaborated to host a surf competition in Langland, on the Gower Peninsula.

Inspired by a similar traditional event from the early 1990s, dozens of surfers took to the water for a team competition that brought together adaptive, amateur, professional and ex-professional surfers. Combining surfing and activism, the event highlighted the necessity for regulations that are more inclusive to all seasons and water users.

With lacking regulation, the only water quality detail that water users had on the day was information provided by the Safer Seas and Rivers Service and evidence collected by citizen scientists at the neighbouring bay.



This is just one example. Surf competitions held outside the bathing season are not unusual, with the autumn months bringing good swell and the water at its warmest. The biggest event in the domestic surfing calendar, the GB Surfing Cup, took place outside the bathing season, between the 25th -27th October.



Photograph by: Just Another Adventure

Despite this bustling calendar of water sport events stretching across the whole year, **the Government refuses to accept this as evidence of diverse water use outside the bathing water season.**

This policy is failing to protect every water user, from those in the water for their health and wellbeing, to professional and elite competitors. In 2024, after the world-renowned Boat Race between Oxford and Cambridge, Oxford rowing crew member Leonard Jenkins told the media how he and other crew members had been throwing up ahead of the race due to an E. coli infection contracted from 'poo in the water'.<sup>14</sup>

## A cap on ambition

The Regulations' blindness to everyone but bathers is also preventing the designation of new river bathing waters. There are just 44 inland bathing sites. Whilst we have seen a welcome growth in rivers designation as a result of the work of campaigners, the low number is only exasperated by the strict definition of bathers and the unrealistic number of water users. For many rivers, especially upland rivers, it is not feasible to reach the minimum of 100 bathers due to their location or the way the rivers are used. It may also be dangerous for others and for the local environment with overcrowding.

## A community united

SAS are not standing alone in calling for a shift from bathing waters to recreational waters. The Clean Water Alliance, a coalition of water sports governing bodies representing both grassroots water enthusiasts to elite athletes, are also calling for a change in regulation that recognises and protects recreational water users across decision making and policy.<sup>15</sup>

<sup>14</sup> [https://inews.co.uk/news/oxford-rower-crew-sick-ecoli-losing-boat-race-2983713?srsltid=AfmBOoo6mvmT3iF-ynmECmxil\\_S8PKSwCoYWSmcdLIBfY2vxl7Pgfv](https://inews.co.uk/news/oxford-rower-crew-sick-ecoli-losing-boat-race-2983713?srsltid=AfmBOoo6mvmT3iF-ynmECmxil_S8PKSwCoYWSmcdLIBfY2vxl7Pgfv)

<sup>15</sup> <https://paddleuk.org.uk/clean-water-sports-alliance-welcomes-new-members/>



## OUR RECOMMENDATION:

11.6 million people took part in outdoor water sports in England last year, and 7.2 million of those took part in activities other than swimming. The Bathing Water Regulations must be updated to count all recreational water users when deciding whether to designate a bathing site;

Water users who take part in all events should be included as evidence in the application process. Defra needs to remove the criteria that events should be discounted when evidencing the number of water users in the application.





## DEMAND 3:

# TESTING FOR EMERGING POLLUTANTS

**SURFERS AND BODYBOARDERS  
ARE THREE TIMES MORE LIKELY  
TO HAVE ANTIBIOTIC RESISTANT  
E. COLI IN THEIR GUTS THAN  
NON-SURFERS<sup>11</sup>**

## The change we need

Citizen Scientists have discovered bathing waters across the UK are awash with pharmaceuticals, pesticides, industrial chemicals, harmful bacteria and genes that **can create superbugs resistant to antibiotics.**

During summer 2024, 23 communities collaborated with the University of York and Watershed Investigations to carry out one of the most intensive testing programmes the UK has ever seen<sup>17</sup>. They discovered a cocktail of chemicals polluting their favourite swimming and paddling spots. Whilst none of the chemicals were found at concentrations that are known to affect public health, there is concern among scientists about the effects that the mix of these chemicals added on top of one another could have on people and habitats. **Despite their impact on public health, none of these emerging pollutants are routinely tested for in bathing waters.**

## Why it matters

### Forever Chemicals:

A group of more than 4700 chemicals, PFAS are widely used, man-made chemicals used in non-stick, waterproof, stain and flame-resistant products. They are becoming increasingly prevalent in the environment, particularly in water.<sup>17</sup>

They are known as 'forever chemicals' because they persist in the environment and take thousands of years to degrade. PFAS have been shown to impact bottlenose dolphins in the USA, where links were shown between increased levels of PFAS and effects on immune, blood, kidney and liver function.<sup>18</sup> Their effects on human health are currently less well documented, but emerging research has shown they can lead to liver damage, thyroid disease, obesity, fertility issues and cancer.<sup>19</sup>

<sup>16</sup> <https://watershedinvestigations.com/watershed-uncovers-polluted-bathing-waters/>

### Antimicrobial Resistant Bacteria:

Antimicrobial resistance is one of the top global public health and development threats. It's estimated that bacterial antimicrobial resistance was directly responsible for 1.27 million global deaths in 2019 and contributed to 4.95 million deaths.<sup>20</sup> In 2015, Surfers Against Sewage assisted in research conducted by the University of Exeter that found surfers and bodyboarders are three times more likely to have antibiotic resistant E. coli in their guts than non-surfers.<sup>21</sup>

### Pharmaceuticals:

New research from the University of York and the Rivers Trust has revealed widespread pharmaceuticals contamination of rivers in national parks. The study found pharmaceuticals in river water at 52 out of 54 locations monitored across all ten national parks in England. Some pharmaceuticals were found at levels of concern for the health of freshwater organisms and for humans who come into contact with the water.<sup>22</sup>

Whilst further research is still required, pharmaceuticals have already been seen to bioaccumulate in humans, which could decrease fertility and cause breast and testosterone cancers.<sup>23</sup>

## OUR RECOMMENDATION:

**To help identify further emerging threats in addition to currently known risks to water users, the Bathing Water Regulations must be updated to test for emerging pollutants.**

<sup>17</sup> <https://www.eea.europa.eu/en/about/contact-us/faqs/what-are-pfas-and-how-are-they-dangerous-for-my-health>

<sup>18</sup> <https://www.mcsuk.org/ocean-emergency/ocean-pollution/chemicals/pfas-forever-chemicals/>

<sup>19</sup> <https://www.eea.europa.eu/en/about/contact-us/faqs/what-are-pfas-and-how-are-they-dangerous-for-my-health>

<sup>20</sup> <https://www.who.int/news-room/fact-sheets/detail/antimicrobial-resistance>

<sup>21</sup> <https://www.sas.org.uk/updates/beach-bums-study-the-results-are-in/>

<sup>22</sup> <https://www.york.ac.uk/news-and-events/news/2024/research/pharmaceuticals-polluting-parks/>

<sup>23</sup> The Impact of Pharmaceuticals Released to the Environment | US EPA



# SUMMARY

With data and evidence compiled by the volunteers and communities who use the water daily, we're shedding light on outdated and out-of-touch Bathing Water Regulations that are failing to deliver on its primary purpose of keeping water users safe.

Millions of water users of all kinds, from swimmers to kayakers, from surfers to paddleboarders, are using the water all year round. The bathing water designation process must be updated to reflect the reality of how people are using the water.

This includes counting all recreational water users when evaluating which locations should be designated. To keep water users safe whenever they use the bathing water, the testing regime should also be extended year-round to give a more accurate picture of bathing water quality.

To ensure the bathing water testing regime is futureproofed, it urgently needs to be extended to identify emerging pollutants, including forever chemicals, microplastics and antimicrobial resistance bacteria. This will not only inform and protect water users now, but can also be used to inform research and interventions to protect future water users.

The Bathing Water Regulations across the UK must be urgently updated to protect water users and continue to drive forward environmental improvements.

## Overarching recommendations

The Bathing Water Regulations across the UK must be updated to:

1  
Test water quality  
**ALL YEAR  
ROUND**

2  
**COUNT ALL  
RECREATIONAL  
WATER USERS**

3  
Test for  
**EMERGING  
POLLUTANTS**

These changes are vital to protect public health, empower local communities, and ensure that the UK's water quality monitoring system is fit for purpose in the 21st century.

By adopting these recommendations, all nations of the UK can build a robust, year-round monitoring system that reflects the reality of how people use water and ultimately safeguards the health of millions of water users across the UK.

MILLIONS OF WATER USERS  
OF ALL KINDS, FROM SWIMMERS  
TO KAYAKERS, FROM SURFERS TO  
PADDLE BOARDERS, ARE USING  
THE WATER ALL YEAR ROUND.





WHETHER YOU ARE A  
BUDDING CITIZEN SCIENTIST,  
OR A FREQUENT DIPPER,  
WE NEED YOU.



# TAKE ACTION

We need urgent reform of the Bathing Water Regulations.  
There are three actions you can take right now.

## 1. Raise your voice for reform

The UK are currently consulting on whether to change the Bathing Water Regulations, and anyone can respond. Use your voice and respond to the consultation before 23rd December 2024.

You can use the information from this report to help you do this, as well as Surfers Against Sewage guidance for replying to the consultation.

### Consultation:

### Guidance:

## 2. Join the Protecting Wild Waters Campaign

Find and join or create your own water user community that fights to protect and restore your local waterway. Whether you are a budding citizen scientist, or a frequent dipper, we need you.

### Protecting Wild Waters website:

## 3. Take the report to your local elected representative

To ensure the Bathing Water Regulations are fit for purpose, we need politicians at a national level to put pressure on the Government and ultimately vote for change. Take this report to your councillors and MPs/ MLAs. SM/ MSP and call on them to protect water users.



# APPENDIX

Table A1: Calendar of Water Sport Events

Water Usage	Event	Month	Location	Estimated Numbers
Swimming	Hurly Burlly	September	North Wales	400
Surfing	Toxic Trophy surf competition	October	South Wales	2
Surfing	Boardmasters	August	Cornwall	500
Swimming	Dart10K	September	Devon	1000
Swimming	Christmas Day/Boxing Day/New Year Swims	December - January	UK-wide	10000
Swimming	Keswick Mountain Festival 3.6k swim	May	Lake District	800
Rowing	Oxford v Cambridge Boat Race	April	Thames	18
Swimming	Henley Swim Festival	July	Thames	2500
Dipping, swimming	Dip a Day	October	UK-wide	1500
Swimming	Ironman	June - September	UK-wide	20000
Swimming	Great North Swim	June	Windermere	10000
Swimming	Snowman Swim	May	Clwyd	300
Swimming	Dartmouth Open Water Swim	June	Devon	350
Swimming	Plymouth Triathlon and Swim	June	Devon	1000
Swimming	Swim Serpentine	September	London	6000
Swimming	Thames Marathon	August	London	1800
Paddleboarding	GBSUP National Series	March	Oxford	500
Paddleboarding	Head of the Dart 2025	April	Devon	300
Paddleboarding	SUPTwelve	April	Devon	130
Paddleboarding	Race 2 The Castle 2025	April	Nottingham to Newark	400
Paddleboarding and Kayaking	The Paddle Skedaddle 2025	May	Norfolk	130
Paddleboarding	GBSUP National Series – Llandegfedd	May	Llandegfedd	200
Paddleboarding	SUPFest 2025	May	Lake District	500
Paddleboarding	2025 British National Championships	June	Falmouth	300
Paddleboarding	Paddle Logger Falmouth Bay Open 2025	June	Falmouth	150
Paddleboarding	GBSUP National Series – BaySUP 2025	June	Christchurch	250
Paddleboarding	SUP English Riviera Championships	September	Devon	400
Paddleboarding	Great Glen Paddle Challenge 2025	September	Fortwilliam - Inverness	150
Paddleboarding	SUP The Creek 2025	October	South Devon	200
Surfing	English National Surfing Championships	May	Cornwall	500
Surfing	Rip Curl GromSearch UK Final	September	Cornwall	400
Surfing	UK Pro Surf Tour Finals	October	Cornwall	700
Surfing	Scottish National Surfing Championships	April	Scotland	350
Surfing	Welsh Surfing Championships	June	Wales	300
Surfing	Jesus Surf Classic	September	Devon	600
Surfing	British Longboard Union Championships	July	Devon	500
Surfing, Swimming, Paddleboarding, Kayaking	Surfers Against Sewage Paddle Out	June	UK-Wide	5000


Water Usage	Event	Month	Location	Estimated Numbers
Kayak and Canoe	Waterside Series A-D	February, March, April	West Berkshire	1200
Kayak and Canoe	Pedal Paddle Peak Challenge	April	Cumbria	600
Kayak and Canoe	Race to the Sun Events	May - June	Lake District, Dorset, Brecon Beacons	800
Kayak and Canoe	National Marathon Championships	August	Nottinghamshire	500
Swimming (Charity Event)	BHF Bournemouth Pier to Pier swim	July	Dorset	2500
Swimming (Charity Event)	Shepperton 24-Hour Swim Relay	June	London	1000
Swimming (Charity Event)	London Docklands Paddleboard Challenge	July	London	1200
Swimming (Charity Event)	Henley Swim Festival	July	Oxfordshire	2500
Swimming (Charity Event)	Lifeboat Fund Paddle	August	East Sussex	500
Swimming (Charity Event)	Thames Bridges Challenge	September	London	1800
Dragon Boat	Bradford Dragon Boat Festival	June	West Yorkshire	1500
Dragon Boat	Peterborough Dragon Boat Festival	June	Peterborough	1200
Dragon Boat	London Hong Kong Dragon Boat Festival	June	London	3000
Dragon Boat	Worcester Dragon Boat Festival	August	Worcestershire	800
Swimming	Swim Duro	December	West Midlands	400
Angling	FishOMania 2024	July	Westwood Lakes, Lincolnshire	200
Angling	Sea Angling Classic	June	The Solent, UK	400
Angling	Women's Nationals	July	UK-wide	100
Angling	Cadet, Junior & Youth National	June	UK-wide	200
Sailing	Cowes Week	August	Isle of Wight	8000
Sailing	Round the Island Race	July	Isle of Wight	15000
Sailing	Poplar Regatta	May	London	800
Sailing	Head of the River Race	March	London	3200
Sailing	Henley Royal Regatta	September	London	800
Sailing	Scottish Series	May	Loch Fyne	800
Sailing	Poole Harbour Boat Show	June	Dorset	20
Sailing	Southampton Boat Show	September	Southampton	100
Sailing	RYA Dinghy Show	March	London and Virtual	700
Sailing	Fastnet Race	July	UK to France (Cowes to Cherbourg)	3500
Sailing	RYA Youth Nationals	April	Various Locations	300
Sailing	Norfolk Broads Regatta	August	Norfolk	200
Sailing	UK National Sailing League	Year-wide	UK-wide	2000
Sailing	National Championships (Class-specific)	June - August	UK-wide	10,000
Sailing	Sailing for Heroes Charity Regatta	September	Hampshire	60
Sailing	Chichester Harbour Race Week	August	West Sussex	600
Total:				134610







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