



WATER QUALITY REPORT '23

TELL THE
TRUTH!



NOVEMBER 2023

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EXECUTIVE SUMMARY

Last year, sewage discharged across England, Scotland, Northern Ireland and Wales more than **399,864 TIMES**, that's over 1,000 times a day.

This is likely a huge underestimation.



NO DATA IN NORTHERN IRELAND

Northern Ireland Water admits they don't currently **HAVE THE ABILITY** to accurately record or measure when discharges occur and therefore don't keep records.

Meanwhile Lough Neagh suffers the biggest **BLUE-GREEN ALGAE CRISIS** it's seen, due to an influx of pollution.

Where we do have data, the picture being painted is bleak.

WATER WORRIES IN WALES

Both Hafren Dyfrdwy and Dŵr Cymru **BREACHED THEIR PERMITS** in 2022 and they discharged for a total of **613,618 HOURS**. That's equivalent to 25,567 continuous days of sewage discharge.

Dŵr Cymru is using emergency overflows (for use in catastrophic events) to release sewage. We have unearthed evidence of **24 POTENTIALLY ILLEGAL** discharges into Poppit Sands over the last two years.

MINISCULE MONITORING IN SCOTLAND

Over the last five years in Scotland, untreated sewage has been released **58,304 TIMES**.

This is from just the 161 sewage overflows (4%) that are monitored, suggesting that the discharges from the total 3,641 are likely to be in the **HUNDREDS OF THOUSANDS**.

DIRTY WATER & DIRTY MONEY IN ENGLAND

Citizen science data shows that **60%** of the inland bathing sites we monitored didn't meet **MINIMUM SAFETY REQUIREMENTS** for water users in England.

For the year ending March 2023, water companies in England paid out nearly **£11 MILLION TO GEOS**. Despite forgoing their bonus, two CEOs walked away with more than last year. They also paid out £1.4 billion in dividends (even more than in 2022).



WHEREVER YOU ARE ACROSS THE UK, THE SEWAGE SCANDAL IS MAKING PEOPLE SICK.

In the last year across the UK, **1,924 WATER USERS REPORTED GETTING ILL** after entering the water. 60% of reports were from "excellent" bathing waters.

From the sickness reports submitted this year, a total of 1,987.5 days were taken off work.

THAT'S THE EQUIVALENT OF OVER 5 YEARS.

But there are opportunities for those responsible to do things differently.

The 2024 general election provides an opportunity for the next government to end sewage pollution. That's why we want all parties to adopt our End Sewage Pollution Manifesto - our five point plan to **END SEWAGE POLLUTION**.



ENFORCE THE LAW



STOP POLLUTION FOR PROFIT



PRIORITISE HIGH RISK POLLUTION EVENTS



EMPOWER A NATURE LED APPROACH



REVEAL THE TRUTH



FIND OUT MORE ABOUT THE MANIFESTO AND CONTACT YOUR LOCAL MP TO GET THEIR SUPPORT AT SAS.ORG.UK



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FORE-WORD

Water quality and sewage pollution are local issues. It's about the waves we surf and the rivers and beaches where we swim. It's the places we love and go to for solace and excitement. Tragically, most of these places have suffered from **SYSTEMIC** and **CHRONIC POLLUTION**.

Our community of ocean activists come from the four corners of the UK, and they tell us that where they're from makes a big difference to their experience of campaigning for an end to sewage pollution. So, this year we have taken a different approach to the Water Quality Report. We're beginning to dig deeper into the sewage scandal, moving beyond a singular national picture, delving into the state of our rivers and coastline in the nations that make up the United Kingdom.

Like every Water Quality Report that has come before this, it is designed to provide fresh data and insight into this crisis. It is picked up and used by journalists, businesses, policymakers and, most importantly, you the campaigners for a thriving ocean and thriving people. We will likely have a general election next year and we want to give you the ammunition to **FIGHT FOR THE OCEAN** and the places you love – wherever you live.

At SAS, we believe that everything we do should be driven by **DATA** and **SCIENCE**. We seek to represent an accurate picture of the appalling state of our blue spaces and tell it like it is. Facing the facts can be shocking and upsetting. We are not exaggerating when we say our rivers are dying. They are – in front of our eyes.

Our data is driven by the use of the Safer Seas and Rivers Service (SSRS), together with monitoring carried out by our national network of volunteer citizen scientists and annual monitoring data. It is supplemented with fantastic insights from every day ocean activists across the devolved nations and investigations by our brilliant team.



We talk of millions of hours of discharge of raw sewage, of hazardous counts of harmful bacteria and indicators of ecological destruction. But this year, we have also sought the experience of people from across our community. For many, this is lived experience of being ill. Or seeing rivers like my own – the River Lim, being declared **ECOLOGICALLY DEAD** or our **BEACHES COVERED IN SHIT**. Of events cancelled, earnings lost and businesses closed. These are indicators of the human cost of the state of our rivers and coastlines.

Thank you to all of you who registered the impact of pollution on your health through the SSRS, or took the time to share your experiences with the SAS team compiling this report. Your testimony is **VITAL** to our cause.

It is this energetic community that will bring about an end to this sewage pollution crisis. Engaging, empowering and mobilising in force! Please take what you need from this Water Quality Report and ask us for more. Use the End Sewage Pollution Manifesto to inform your local candidates ahead of the incoming general election – they need your vote and they can feel the tension around sewage pollution bubbling.

TOGETHER, FOR THE OCEAN.

Giles

WE TALK OF MILLIONS OF HOURS OF DISCHARGE OF RAW SEWAGE, OF HAZARDOUS COUNTS OF HARMFUL BACTERIA AND INDICATORS OF ECOLOGICAL DESTRUCTION.

BUT THIS YEAR, WE HAVE ALSO SOUGHT THE EXPERIENCE OF PEOPLE FROM ACROSS OUR COMMUNITY.



INTRODUCTION

THE CURRENT STATE OF WATER QUALITY IN THE UK STINKS

THE SEWAGE SCANDAL.

2022 figures from UK environmental regulators revealed untreated sewage was discharged into UK rivers and coastlines at the very least **399,864 TIMES**, that's 1,091 times a day. And as this report will show, that's most likely a huge underestimation of the scale of the UK sewage scandal. Over the last year, 1,924 sickness reports were reported to Surfers Against Sewage, causing an estimated **5 YEARS** worth of (1,987.5) sick days due to sewage pollution - and this is just those reported to SAS.

OUR RIVERS ARE DYING.

Only 14% of English rivers are in good ecological condition¹, and our river citizen science data shows 60% of the popular swimming sites we monitored **DIDN'T MEET MINIMUM SAFETY REQUIREMENTS** for water users.

This year alone, the SSRS has reported over 18,000 real-time sewage alerts and pollution risk forecasts for the UK.

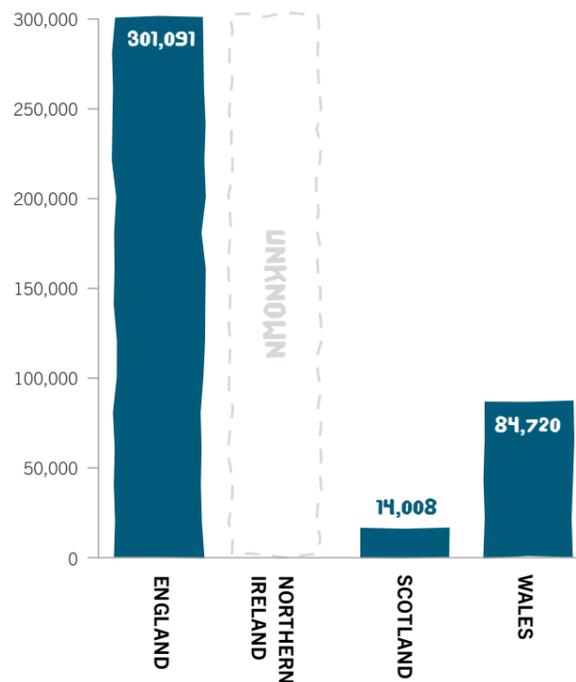
RIVERS, LAKES AND THE OCEAN ARE IN CRISIS.

The sheer amount of sewage, agricultural run-off and other pollutants that are pumped into UK beaches and rivers is astonishing. But not more astonishing than the truth about just how much water companies and other polluters have been hiding from public sight.

In Scotland a **MINISCULE 4%** of sewage overflows have reporting requirements and in Northern Ireland there is virtually no monitoring at all.

Figure 1

Total number of reported sewage discharges per nation during the 2022-23 bathing season.



Meaning water users and water lovers have little to no information about the threat sewage pollution plays to their health, and to the health of the natural environment.

Meanwhile in England, years of self-regulation has meant that the inner workings and finances of the private water companies are as broken and complicated as ever.

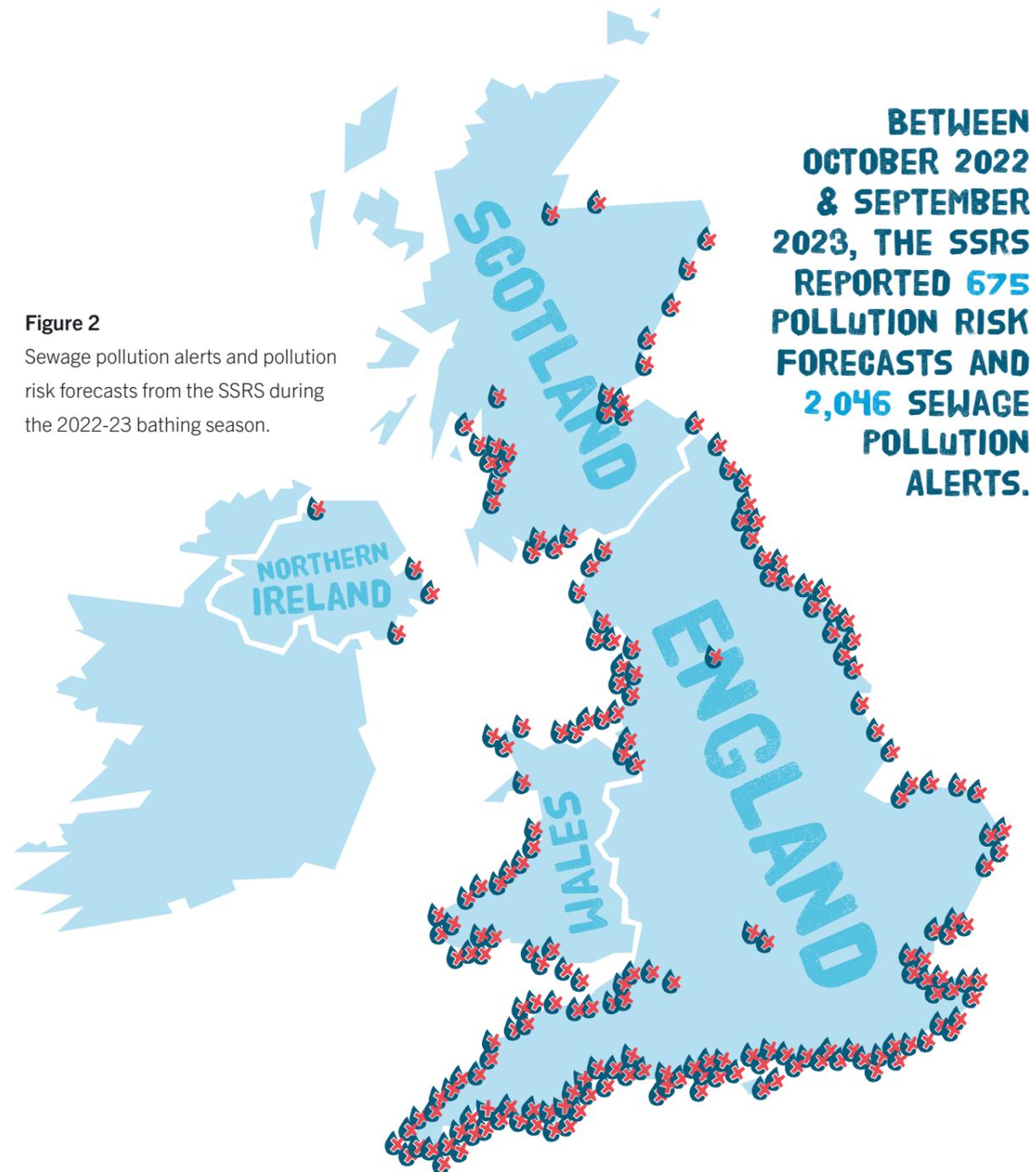


Figure 2
Sewage pollution alerts and pollution risk forecasts from the SSRS during the 2022-23 bathing season.

BETWEEN OCTOBER 2022 & SEPTEMBER 2023, THE SSRS REPORTED 675 POLLUTION RISK FORECASTS AND 2,046 SEWAGE POLLUTION ALERTS.

BUT THINGS ARE CHANGING.

It's not just the surfers, or the swimmers, or even the occasional dippers who are getting clued up to the persistent exploitation of our blue spaces by money-grabbing corporations and blinkered people in power.

As more layers of the sewage scandal begin to peel back, communities and ocean activists everywhere have come together to call out those responsible.

THOUSANDS have joined us in protest, and over **45,000** emails to local representatives and water company CEOs have been sent this year.

We've seen the public standing up against sewage pollution and campaigning for the ocean throughout the United Kingdom.

AND WE'RE STANDING WITH THEM.

INTRODUCTION

2022-23 WATER QUALITY TIMELINE

1ST MARCH
Ofwat launch consultation on water company executive pay, committing that **CUSTOMERS WILL NOT PAY** for CEO bonuses.

4TH APRIL
The UK Government releases their Plan for Water.

20TH MAY
UK-wide Surfers Against Sewage **PADDLE OUT** (3,800 people protested across 18 UK locations)



29TH JUNE
Ofwat agrees to link executive pay to **ENVIRONMENTAL PERFORMANCE**.

1ST AUGUST
Six bathing water locations added to **SAFER SEAS AND RIVER SERVICE** in Northern Ireland.

3RD JULY
Defra amended the bathing water designation criteria.

12TH SEPTEMBER
Office for Environmental Protection identifies possible **FAILURES TO COMPLY** with environmental law by government and regulators.

15TH SEPTEMBER
Legal review of government SODRP confirms storm overflows should only be used in **EXCEPTIONAL CIRCUMSTANCES**.

8TH OCTOBER
Labour Party announces plans to prevent water firm **BONUSES** when there have been significant sewage discharges if elected.

21ST NOVEMBER
Surfers Against Sewage publish the 2023 **WATER QUALITY REPORT**.



19TH APRIL
Liberal Democrats call for water company **BONUSES TO BE BANNED** until sewage discharges are stopped.

27TH MARCH
SAS launch **DIRTY MONEY PETITION** calling for an end to profiteering from pollution.

1ST JUNE
Storm Overflow Discharge Reduction Plan (SODRP) to be extended to cover coast and estuaries. This came as a result of **CAMPAIGNERS TAKING GOVERNMENT TO COURT**.

18TH JULY
Legislation passed to allow **UNLIMITED FINES** to be placed on water companies.

13TH SEPTEMBER
Parliament **VOTES DOWN** government plans to weaken environmental protection for rivers.



18TH MAY
WATER UK APOLOGY, publically owning up to their pollution for the first time Ruth Kelly, Chair of Water UK, said:

"The message from the water and sewage industry today is clear: we are sorry. More should have been done to address the issue of spillages sooner and the public is right to be upset about the current quality of our rivers and beaches"

5TH SEPTEMBER
BBC reveal Thames Water, Wessex Water and Southern Water collectively released sewage in **DRY SPILLS FOR 3,500 HOURS** in 2022.

END DECEMBER 2023
ALL STORM OVERFLOWS in England must be monitored.

SPRING 2024
Public data of **REAL-TIME SEWAGE DISCHARGES** from 15,000 overflows made available in England.

INTRODUCTION

WHY ARE WE HERE?

The dire state of our watery places is a result of systemic failure at every level to prioritise the health of the environment and the people who use it. Instead water has been exploited by short-term decision making.

As our water quality report revealed last year, water companies have been for decades **PUTTING PROFIT OVER POLLUTION**, siphoning out huge dividends and executive bonuses whilst their infrastructure is systemically and routinely overwhelmed even on the driest days of the year.²

Governments have also seemingly turned a blind eye, with the independent Office of Environment Protection this year finding that the UK government and regulators have been failing to comply with their legal obligations to deal with sewage discharges.³

Instead of enforcing the law which allows the use of storm overflows in only exceptional circumstances, they have simply allowed water companies to use these overflows as a matter of course.

ENVIRONMENTAL REGULATORS HAVE ALSO SUFFERED SEVERE BUDGET CUTS UP AND DOWN THE COUNTRY MEANING THAT EVEN REPORTED POLLUTION EVENTS GO UN-INVESTIGATED AND UNPUNISHED.⁴

IN THIS YEAR'S REPORT WE REVEAL THE SHOCKING LACK OF TRANSPARENCY FROM THE DEVOLVED ADMINISTRATIONS IN SCOTLAND AND NORTHERN IRELAND, AND SHOW THE TRUE SCALE OF SEWAGE DISCHARGES ACROSS WALES.

We highlight the devastating cost sewage pollution is having on individuals and business around the UK, and champion the work of the communities and individuals who have been forced by a failing system to take responsibility for improving their own favourite natural places.



THE END SEWAGE POLLUTION MANIFESTO

With a UK general election expected next year, and with sewage pollution dominating headlines, 2024 provides an unprecedented opportunity for people power to turn the tide on sewage pollution at a local and national level.

This report will provide you with the **KNOWLEDGE, STATS** and **STORIES** you can use to get the actions you need from your next local politicians or water company to ensure they clean up the sewage pollution wherever you live.

FROM NOW, RIGHT UP UNTIL THE ELECTION, POLITICIANS' NUMBER ONE PRIORITY WILL BE TRYING TO SECURE YOUR VOTE.

Collectively this gives us a huge amount of **POWER** to set the agenda and demand that your local candidates must commit to **END SEWAGE POLLUTION** if they want your vote. Remember, you don't have to be a water quality expert to express your right to safe, clean water.

We at SAS HQ, working in collaboration with other environmental charities, community groups and sports governing bodies, have created the End Sewage Pollution Manifesto. Created by water lovers united by an ambition to deliver thriving water environments, the manifesto sets out the progressive policies that parties should adopt to deliver healthy and safe rivers and seas.

Our five key policy asks are for governments to:

ENFORCE THE LAW

We have the regulations and laws we need to End Sewage Pollution. Now we must enforce them.

STOP POLLUTION FOR PROFIT

Water companies' first responsibility must be to the environment, not their shareholders and executives.

PRIORITISE HIGH RISK POLLUTION EVENTS

Take immediate targeted action to tackle the highest risk pollution events.

EMPOWER A NATURE LED APPROACH

Harness the power of nature to end sewage pollution.

REVEAL THE TRUTH

Deliver UK wide transparency about sewage pollution.

 **FIND OUT MORE ABOUT THE MANIFESTO AND CONTACT YOUR LOCAL MP TO GET THEIR SUPPORT AT SAS.ORG.UK**

POLLUTION IMPACT

SEWAGE IS MAKING US SICK

Rivers and seas are the arteries and lifeblood of the planet, transporting the water and nutrients needed to sustain thriving ecosystems – including human life. And yet we’ve allowed our lifeline of existence to be **EXPLOITED**. Our precious blue spaces are being contaminated with sewage, agricultural and chemical pollutants, and in turn, humans are getting sick too.

If you’ve spent any time in the water, you’ll know of the benefits we can gain from spending time in nature. As humans, we instinctively know that being close to water makes us happier, healthier, more peaceful and less stressed. We explored the wealth of these mental and physical health benefits in last year’s report.

Today, there are approximately 17 million water users across the UK⁵, and these numbers are rapidly rising along with the increased knowledge and awareness of the mental and physical benefits of spending time in blue spaces.

But what’s far less known is the impact of when these blue space benefits are **STRIPPED AWAY FROM US** as a result of sewage pollution.



OUR RECENT SURVEY FOUND THAT OVER TWO THIRDS (64%) OF PEOPLE SAY ACCESS TO BLUE SPACE IS BENEFICIAL FOR THEIR PHYSICAL HEALTH.

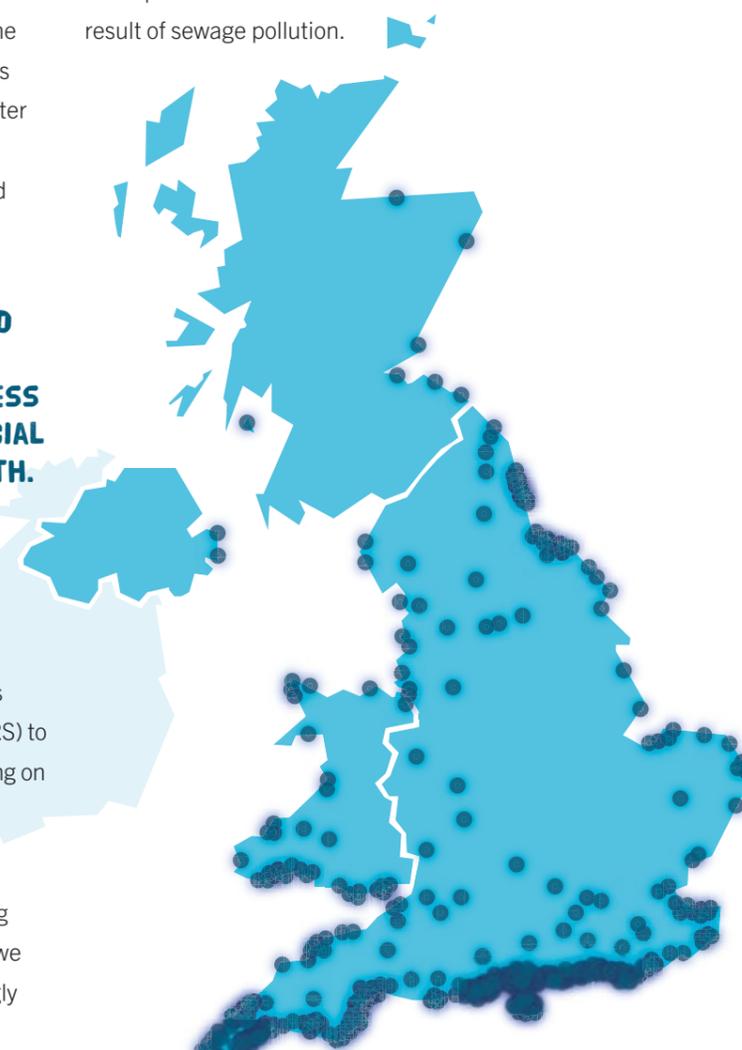
GETTING SICK FROM SEWAGE

For the past four years, we’ve been collating sickness reports through our Safer Seas and River Service (SSRS) to delve into the striking impact sewage pollution is having on people’s health and wellbeing all across the UK.

Between October 2022 and September 2023, a total of 1,924 water users reported getting ill after entering the water. That’s nearly triple the number of reports we received in 2021/2022. The numbers are nauseatingly high. And yet these are just the sickness reports submitted to us. We’re only getting a glimpse into the true scale of sewage sickness across the UK.

Figure 3

Locations of sickness reports submitted through the SSRS between October 2022 and September 2023.



From surfers, sailors and swimmers to dog walkers, toe dippers and sandcastle makers, the range of illnesses contracted by adults and children of all ages is extensive.

MANY OF THE ILLNESSES EXPERIENCED WERE SO SEVERE THAT THEY EVEN CAUSED SOME TO BE HOSPITALISED, AND A FEW ARE STILL SADLY SUFFERING AS A RESULT.

Robbie Bowman was hospitalised for a week after enjoying a swim with just a small scrape on his leg. He thought the salt water might be quite good for it, but it turned out not to be...

“It had been about 2 hours after swimming and I started to feel ill, a bit feverish. I thought it might be Covid. I was driving home trying to keep myself compos mentis. By the time I got to Cardiff I could barely walk from the van to our house. About 2 hours later, my son came downstairs and found me lying on the floor, waving my arms about, not making any sense. I don’t remember any of that.

It has quite massively impacted me. I don’t trust the water any more. That for me is the biggest shame.”

- Robbie

“I DON’T TRUST THE WATER ANYMORE. THAT FOR ME IS THE BIGGEST SHAME.”



POLLUTION IMPACT

SICKNESS ROULETTE

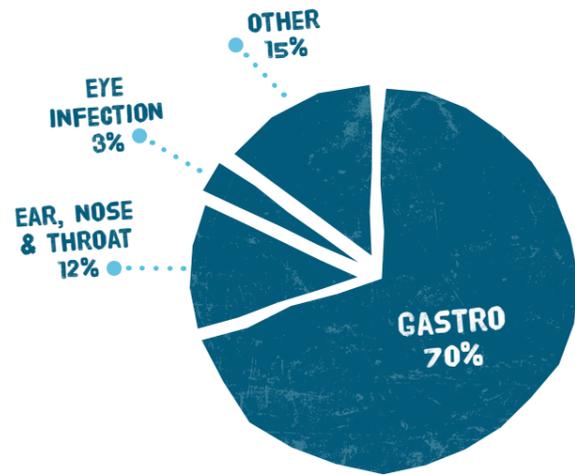


Figure 4
Types of polluted water induced sickness reported during 2022-23.

THE EVIDENCE IS SURGING

Of those who visited a doctor, 3 out of 4 people said the doctor attributed their illness to exposure to sewage polluted waters.

If this isn't evidence enough, we also investigated which sickness reports were made whilst a sewage alert was in place. Unsurprisingly, this further validated doctors' diagnoses (Figure 4).

60% OF ALL THE SICKNESS REPORTS SUBMITTED WERE FROM BATHING WATERS CLASSIFIED AS 'EXCELLENT'.

It's not just humans getting sick, but animals too. This year we saw multiple sickness reports of people claiming their dogs fell ill at the same time.

Phoenix, a 2 ½ year old puppy had to be sedated by the vets to take blood samples and paw biopsies after being made ill and making no improvement, despite being on antibiotics. The vets confirmed a diagnosis that he had contracted E. coli. After being on medication for over a month, and totting up a £3,000 vet bill, Phoenix has now finally recovered.

“It's hard to see my puppy who is usually full of bounce and mischief in this state which was potentially caused by a holiday to the coast, he loves the water and the beach and I now loathe to take him to the coast in future as this could happen again!**”**

- Hannah Mills

Taking time off work and going to hospital due to getting sick from a dip in the water doesn't quite paint the picture of crystal-clear waters in the UK. But a massive 1,164 of the sickness reports submitted were registered at bathing waters classified as 'excellent' – defined as having the 'highest, cleanest water quality' (Figure 5).

This is deeply worrying. If we can't swim in 'excellent' waters without getting sick, our odds aren't looking good for the rest of the UK...

From the reports that had a confirmed sewage spill and where people visited a doctor,

83% SAID THE DOCTOR ATTRIBUTED THEIR SICKNESS TO SEWAGE POLLUTED WATERS.

IT'S NOT JUST HEALTH THAT'S AFFECTED

It's not just the environment and people's health being impacted, it's whole livelihoods and businesses too. The knock-on effects of people falling sick is impacting whole families, finances and work, as well as putting an increasing strain on the NHS.

From the Sickness Reports submitted this year, a total of 1,987 days were taken off work. That's the equivalent of over five years.

97 people had to take a week or more off work, with one person even being forced to quit their job because of their prolonged sickness.

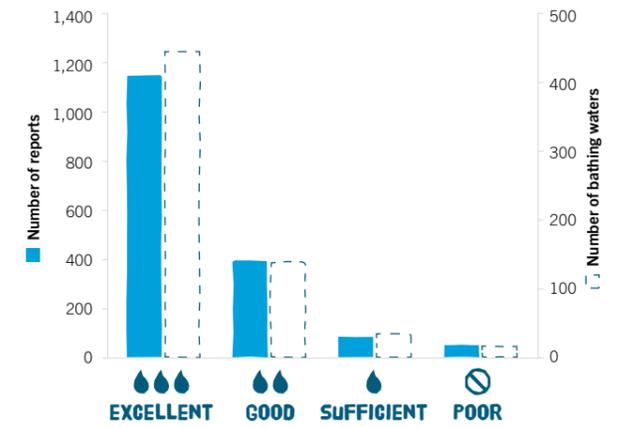
Reuben Santer was a Secondary School Physics Teacher who has been forced to stop working due to his illness. After a surf at Saunton Beach in Devon, a doctor confirmed that he'd contracted labyrinthitis (an inner ear infection) due to either a virus or bacteria entering his ear. This has now developed into an **INGURABLE DISEASE** called Meniere's disease, which Reuben now has to live with.



“I have never been anxious about anything in my life, but this experience has definitely made me worried that symptoms will come back when driving, surfing, at work or any situation where vertigo could be dangerous.**”**

- Reuben

Figure 5
Number of sickness reports by bathing water classification, and the current number of each type of classification in the UK.



AREAS THAT ARE RELIANT ON TOURISM AND OUR BLUE SPACES ARE BEING HIT PARTICULARLY HARD.

As the risk of getting sick from sewage becomes more prominent, people are starting to change their behaviour by avoiding going in the water or booking holidays at their once-favourite seaside town.

As we see sickness from sewage sweeping through every corner of the UK, we're reminded of the sheer scale of the sewage scandal. It's not just affecting the hardcore surfers and swimmers, it's affecting everyone. Where the issues and solutions to fix the sewage pollution issue vary between devolved nations, the consequences look remarkably similar. And unless we fix the problem, the environment, wildlife, and people will keep getting sick.



FOR MORE SICKNESS STORIES, VISIT THE ONLINE REPORT AT WATERQUALITY.SAS.ORG.UK

POLLUTION IMPACT

IMPACTS ON THE ECONOMY

UK marine recreation has an estimated gross value total of £1.29 billion⁶, making the marine environment a vital asset to the UK economy⁷.

However, recreational activities and employment opportunities are dependent on environmental factors such as water quality⁷ which, as we know, is a far-cry from gold standard.

When coastal water quality is improved, the number of visits to a beach location can increase by an average of 52% and by 64% when improved on a stretch of river⁸.

Therefore, improving the quality of UK waters is **VITAL** to ensure coastal communities and those that rely on the water for employment and wellbeing, do not suffer.

BUT WE ARE NOT SEEING IMPROVEMENTS.

SURF SHOP SHUT DOWN

We've spoken to Steve from Scarborough on how regular sewage discharges onto South Bay beach has forced him to shut his surf shop.



My income stopped dead on the 6th May. It's only because my dad died last year that I'm surviving now because I was left some money. If it wasn't for that I would be out on the street."

- Steve

As we reveal the true extent of the pollution entering the water across the UK, it's becoming clear that the **ECONOMIC IMPACT** of sewage pollution is far more wide-reaching than any of us truly recognised.

The surge of sewage discharges at popular bathing sites over the last year has resulted in ongoing disappointment of water-based events being cancelled, water sport activities having to be rescheduled and charity events left unable to raise funds. As the frequency of these cancellations pick up, the knock on effects to communities, businesses and charities start to stack up, chipping away at the UK **ECONOMY**, and the **LIVELIHOODS** of those that work in our blue spaces across the UK.

SURF THERAPY IMPACTED

Siobhan Swift is Head of Operations at The Wave Project in Scarborough. They have had to cancel and postpone surf therapy sessions due to sewage pollution alerts which has a huge impact on the young people she works with.

“At the Wave Project, we use the sea and the ocean as a therapeutic space for our young people.

When there has been a sewage alert, we are then unable to get in the water with the young people. We have had to postpone or cancel some of our sessions. Whilst for a lot of people that doesn't sound so bad, for some young people, we hear from their parents that looking forward to the Wave Project is the only thing they look forward to that week, for some young people it's the only reason they leave the house that week. Postponing for them, has a huge mental health impact on them.

We're cancelling last minute on people who really need that health intervention."

- Siobhan Swift

“MY SHOP HAS BEEN CLOSED ALL SUMMER. FROM THE 6TH MAY THE RNLI PUT THE RED FLAGS UP AS THE BEACH WAS AT A POOR QUALITY HERE IN SCARBOROUGH...

I COULDN'T CARRY OUT ANY LESSONS ON THE BEACH WHEN THE LIFEGUARDS THEMSELVES THINK IT'S UNFIT TO GO IN.”



YOU CAN WATCH SIOBHAN AND STEVE'S STORIES ON THE ONLINE VERSION OF THE REPORT AT WATERQUALITY.SAS.ORG.UK

Q NATION FOCUS: ENGLAND

RIVER HEALTH REVEALED



NATION FOCUS: ENGLAND

HOW IS SEWAGE MANAGED IN ENGLAND?

Water policy in England has been changing rapidly over the last few years as a result of dedicated campaigning.

The bulk of the policy is contained within the UK government's 'Plan for Water' and 'Storm Overflow Discharge Reduction Plan' which set out the actions government, regulators and industry will take to tackle sewage pollution.

There are nine wastewater companies in England that are responsible for the majority of the country's wastewater and sewage. These are all private companies owned by shareholders. They are all regulated by the **ENVIRONMENT AGENCY** (the environmental regulator) and **OFWAT** (the financial regulator).

OUR RIVERS ARE IN A DIRE STATE

Inland waters throughout the UK are dying. Only 14% of rivers in England meet good ecological status, and none meet good chemical status.

This is owing to a variety of factors, including the **WIDESPREAD** and **PERSISTENT** discharging of treated and untreated sewage, agricultural runoff, and industrial activity. Of the 86% of inland water bodies which fail to meet targets in England, **36%** have been identified as **FAILING DIRECTLY AS A RESULT OF SEWAGE AND WASTEWATER DISCHARGES**⁹. This matters not just for the health of our rivers and lakes but also for the ocean and the coastal surf and swim spots we love so much. Ultimately what goes into our rivers goes into our ocean.

Water quality monitoring in the UK is shockingly sparse, but this data is crucial for understanding water quality and ecological health. The most recent round of water quality assessments in England were undertaken 4 years ago in 2019 by the Environment Agency (EA) as part of the Water Framework Directive.

Prior to that, the last assessment was undertaken in 2016. And now we know the next round of water quality assessments will not be undertaken until 2025¹⁰. Over the course of a decade, the health of most English rivers will **ONLY BE CHECKED THREE TIMES**.

What testing we do have only provides a 'snapshot' view of how a waterway looked at one point. This doesn't account for their dynamic nature and decreases the probability of detecting pollution. As a result, our knowledge of the health of UK waters is, on the whole, outdated and inaccurate.

OUR CITIZEN SCIENCE DATA SHOWS 60% OF THE BATHING SITES WE MONITORED DIDN'T MEET MINIMUM SAFETY REQUIREMENTS FOR WATER USERS IN ENGLAND.

In specific sites with Designated Bathing Water status, water quality is tested on a more frequent basis due to legal recognition that they are popular bathing sites. At these sites, the EA tests weekly for bacterial indicators of sewage. But, there are currently only 3 sites on UK rivers and these sites are only monitored from May - September (the official bathing season in England). So yet again what monitoring we do, still fails to provide a clear picture of the state of our rivers and the potential impact on human health.

WHAT IS CITIZEN SCIENCE?

Citizen science is the **collection of data**, by **non-scientists** to achieve a **common goal**.

In our case, our citizen scientists are community members who want to understand more about the presence of sewage in their local waters.

Q NATION FOCUS: ENGLAND

CITIZEN SCIENCE WATER QUALITY TESTING

HOW DOES IT WORK?

On a weekly basis, citizen scientists test for two main types of bacteria: Escherichia coli (E. coli), and intestinal Enterococci.

These are known as **FAECAL INDICATOR ORGANISMS** (FIOs), so-called due to their common presence in the intestinal tracts of mammals (i.e. humans).

Because they thrive in the human gut, they are often found in **UNTREATED SEWAGE**.

This, in combination with the ease with which they can be grown in a laboratory environment, means that they are easily detectable and a convenient marker for untreated sewage.

THE SAMPLING PROCESS...

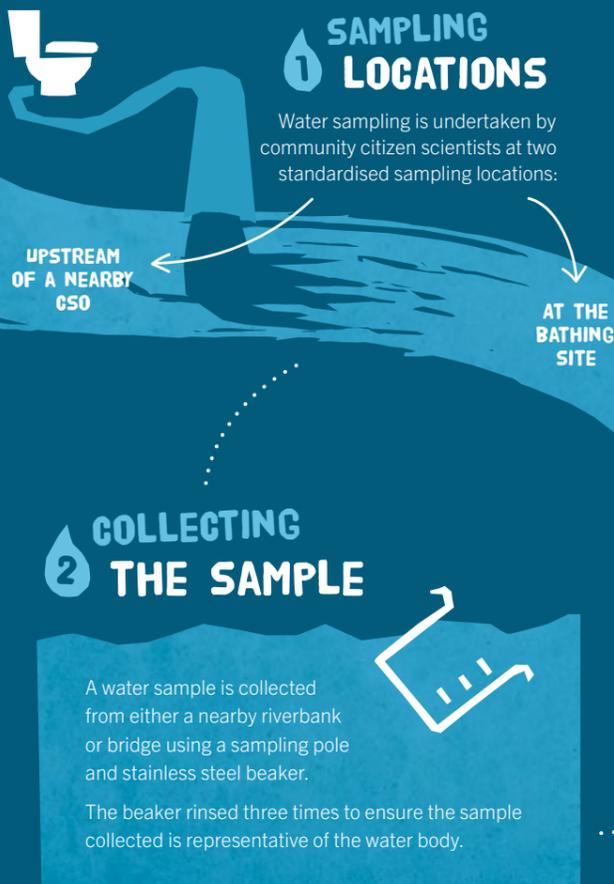


Figure 6
The citizen science sampling and sample handling process.

4 TRANSPORTING THE SAMPLE

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

WHAT DID WE FIND?

Our community of citizen scientists have collected data over an 18-week period (May - Sept 2023). This data has been collated and used to replicate Bathing Water Classifications.

Designated bathing sites are given one of the four following classifications:



These classifications use the EA statistical technique to categorise each sampling location into either Excellent, Good, Moderate, or Poor, depending on the levels of E. coli and Enterococci in the samples.

The statistical technique looks at the average values over the season, as well as how much the values change over time, to determine the probability of the location being **HAZARDOUS FOR WATER-USERS' HEALTH**.



Figure 7
English rivers that were tested in the SAS Citizen Science Programme.

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.

Q NATION FOCUS: ENGLAND

CITIZEN SCIENCE WATER QUALITY TESTING (CONTINUED)

MAJORITY OF TESTING SITES SHOWED POOR WATER QUALITY

A total of 40 sites were investigated for our citizen science water quality testing programme.

This included 20 locations throughout the UK where communities were applying for Designated Bathing Water status, and a further 20 sites upstream of a nearby sewage overflow (to find out if sewage discharges are causing a decrease in quality).

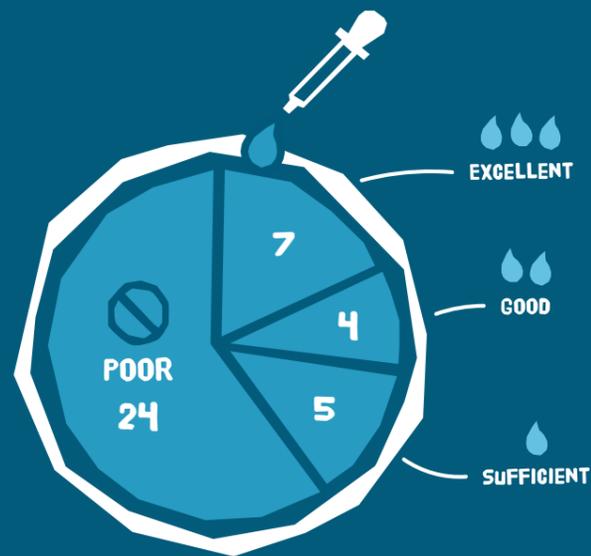
Of the 40 sites, we found that 24 sites received a Poor bathing water classification, 5 sites received a Sufficient classification, 4 sites received a Good classification and just 7 sites received an Excellent classification.

60% OF SITES TESTED DID NOT MEET THE MINIMUM STANDARD FOR SAFETY REQUIRED FOR WATER USERS.

These sites were found to have such high levels of bacteria present that the EA would classify them as being **UNSAFE FOR HUMAN RECREATIONAL USE**. If these sites were officially designated bathing areas the EA would be required to open a formal investigation into the source of the pollution.

One iconic river which tragically received poor water quality was the River Dart in south Devon. Of the 6 sampling locations on the River Dart, 4 locations received a 'Poor' water quality classification for the 2023 bathing season, and many of the weekly samples taken at these 4 sites consistently showed dangerously high levels of FIOs such as E. coli and Enterococci.

Figure 8 Bathing water classifications from 40 sites investigated by the SAS Citizen Science water quality testing programme.



This means that this ecologically and culturally important river which is so popular with water users, and is host to many events including the annual Dart 10k swim race and the Dartmouth Royal Regatta, would **FAIL TO MEET SAFE BATHING STANDARDS** in these 4 sites.

The data presented here was collected by one of our fantastic communities who are **CAMPAINING ON THE RIVER DART** to achieve Designated Bathing Water Status as part of our Protecting Wild Waters programme.

All of our testing sites are well used for dipping, swimming and watersports, yet without intervention from Protecting Wild Waters communities, they would remain completely untested throughout the year. And unknowingly, the local water users may be swimming in **DANGEROUSLY CONTAMINATED WATER** on a regular basis. Don't they have the right to be informed of dangers to their health?

IMPACT OF SEWAGE OVERFLOWS

Of the 20 different locations across the UK, 4 bathing sites showed a clear decrease in water quality from locations upstream to downstream of a sewage overflow.

All of these sampling locations have sewage overflows in between them, all of which discharged untreated sewage last year. Whilst there is currently a lack of available real-time data relating to the discharge of untreated sewage, last year's discharge data suggests that these locations are affected by the regular use of sewage overflows.



Figure 9 Locations where water quality changes between sampling locations and the Sewer Overflows between the testing sites.

SITE	CHANGE IN WATER QUALITY CLASSIFICATION BETWEEN UPSTREAM AND DOWNSTREAM	NUMBER OF SEWER OVERFLOWS BETWEEN SAMPLING LOCATIONS
River Severn (Atcham/Ismore)	SUFFICIENT → POOR	1
River Severn (Shrewsbury)	SUFFICIENT → POOR	6
Jubilee River / River Thames	EXCELLENT → GOOD	1
River Thames (Kennington/Longbridges)	EXCELLENT → SUFFICIENT	2

Q NATION FOCUS: ENGLAND

**CITIZEN SCIENCE
WATER QUALITY
TESTING (CONTINUED)**

WHY AREN'T WE SEEING MORE?

The citizen science program is replicating the EAs water quality testing regime, which only samples on a weekly basis.

With more frequent sampling, we would increase the likelihood of testing directly after a sewage discharge, which would likely decrease water quality. What our results indicate is that at least four of our locations are directly impacted by sewage discharges - we cannot say that the other 16 are not. By limiting ourselves to weekly testing, we could be missing bouts of bad water quality. The more frequent testing a location receives, **THE MORE ACCURATE PICTURE WE HAVE.** We know that sewage pollution will move downstream quickly in heavy-flowing water. But ultimately all rivers lead to the ocean - taking the pollution down to the coast as it goes.

WHAT WE NEED TO HAPPEN

We need an enhanced, world-leading testing regime all year round which gives a true picture of the UK's water quality.

To help us achieve a greater amount of water quality testing across the UK we're campaigning for the introduction of 200 designated inland bathing waters by 2030, leveraging the legislation that's already in place to track and improve water quality at local inland sites, so we can start improving the health of our rivers and lakes – which are currently in disastrously poor condition.

As part of our End Sewage Pollution Manifesto, we are calling for the incoming government to prioritise high-risk pollution and take immediate, targeted action to tackle the highest-risk pollution events, which include those impacting on designated bathing sites and other popular water user sites.



? WHAT NEEDS TO HAPPEN?

We are calling on this and the next government to;

REVEAL THE TRUTH



We need UK wide transparency about sewage pollution.

- ✓ Accurate and accessible real-time water quality information year-round
- ✓ A transparent bathing water application process
- ✓ Water quality testing that shows the full picture
- ✓ Transparency across the sewage system

PRIORITISE HIGH RISK POLLUTION



Take immediate targeted action to tackle the highest risk pollution events.

- ✓ End untreated discharges affecting bathing waters and popular water usage areas by 2030
- ✓ End untreated discharges affecting high priority nature sites by 2030

Q NATION FOCUS: ENGLAND

BATHING WATER DESIGNATION



Bathing water designation qualifies sites for **regular water quality testing** throughout the bathing season. These sites are the only stretches of water where regulators are legally obliged to test and monitor the water quality (which is still limited).

There are currently **ONLY THREE** inland bathing sites in England (the River Wharfe at Ilkley, Wolvercote Mill Stream at Oxford and River Deben at Waldringfield). All 3 of these designations were achieved by incredible community campaigns. This year SAS is engaging with 50 communities, through the **PROTECTING WILD WATERS** campaign, who want to see improvements to their river and lakes by applying for bathing water designation, 20 of which plan to apply this year.

DESIGNATION MEANS THAT WATER USERS HAVE THE INFORMATION THEY NEED ABOUT THE QUALITY OF THE WATER ALLOWING THEM TO DECIDE IF THEY SHOULD USE THEIR FAVOURITE SWIM SPOT.

Bathing water designation is the mechanism to not only ensure water is regularly tested, but to ensure if a bathing site receives a classification of 'Poor' that the appropriate agency takes measures at the bathing water to prevent, reduce or eliminate (as appropriate) the causes of pollution.

Following the bathing water application process leads to other benefits – MP engagement, citizen science, media attention, engaged communities, protests – all of which builds the campaign for change at local and national level.



Figure 10 Protecting Wild Waters campaign map showing the current designated bathing sites and active SAS community campaigns.

CHALLENGES WITH DESIGNATION

The designation process does come with its challenges.

The application requires evidence of the number of bathers (anybody swimming or paddling in the water), available facilities, support of the community, local authority and landowner.

Whilst the Department for Environment, Food and Rural Affairs (Defra) gave clarity this year that 100 bathers are required each day to meet the criteria in England, this isn't fit for purpose in relation to how inland waters are used.

NO MATTER HOW MANY PEOPLE USE THEIR WELL-LOVED RIVER, LAKE OR SEA, INFORMATION ON WATER QUALITY SHOULD BE AVAILABLE.



We know that people use their bathing sites to surf, swim and paddle all year. The Bathing Water Regulations 2013 only enforces that regulators monitor water quality for just two bacteria during the bathing season.

We need changes to the regulations to create an enhanced testing regime, monitoring for additional pollutants all year round (including phosphates, nitrates, microplastics and antibiotic resistance).

DE-DESIGNATION

If a bathing site receives a classification of "Poor" for 5 consecutive years then it is de-designated.

This time period isn't always long enough to make changes to the water quality, to therefore improve the bathing sites' classification.

One of the biggest barriers in making improvements is the price review cycle. Water companies are currently planning their delivery and investment for the next 5 years in line with the price review; PR24. If a bathing site is designated and falls outside the planning period of the price review there may not be investment in place that is required to make improvements and prevent de-designation. We need regulations and price review limitations to ensure that our bathing sites are given the best possible opportunity to succeed.

We are working with 20 of these bathing water communities to support them in a citizen science programme to conduct their own water quality testing – so they can see the real picture of water quality at their site to help them campaign for designation.

Fabulous photo with thanks to the Manningtree Mermaids, TazzyBro Photography and Batoko Swimwear

Pop over to:
PROTECTINGWILDWATERS.ORG.UK
 to find out more, explore the toolkit or join a local campaign!

NATION FOCUS: ENGLAND

SPOTLIGHT: DIRTY MONEY

In last year’s Water Quality Report, we revealed a staggering £965 billion was paid out of water companies in dividends and £16.5 million was handed over to water company CEOs for a “good job well done” in 2021 despite failing environmentally and letting down their customers.

In March 2023 we launched the Dirty Money petition to bring the public together to stand up against these profiteering actions of water companies, and demand that they put the environment before profit.

173,000 people across the UK signed in support of our calls to: tie the payment of dividends to compliance with environmental regulations, see a cap on CEO bonuses and see more transparency in water company finances.

WITH THE UK PUBLIC RISING UP IN FORCE, WE HAVE STARTED TO MAKE A DIFFERENCE TO HOW THIS IS REGULATED.

Ofwat, the economic regulator of water companies in England and Wales, have announced plans to change regulations to make sure water company executives’ bonus won’t be paid out of customer money. They also announced plans to link shareholder payouts to environmental performance.

These announcements are warmly welcome, but they have plenty of loopholes and still allow water companies to take money out of the system to line the pockets of investors and CEOs even if the company’s performance is going backwards, or they are breaking their permit requirements.

EMPTY GESTURES AND FILLED POCKETS

Water companies also quickly responded to this public outcry with promises of better dividend policies and forgoed bonuses, but has anything really changed?

Some water companies seem to have genuinely listened to their customers, with CEOs taking a drop in overall pay and dividends reduced. But out of the 5 water companies that gave up their CEO bonuses, 2 CEOs walked away with higher overall pay than last year. (Figure 11).

We’re not fooled by their PR stunts, this year England’s water company **CEOS STILL CUMULATIVELY TOOK AWAY NEARLY £11 MILLION**, whilst discharging raw sewage over 300,000 times last year. We need lasting and enforceable legislation changes, and that’s why we’re working to influence Ofwat, on how they can use their powers to finally reign in water company self-regulation, and start holding these companies to account.

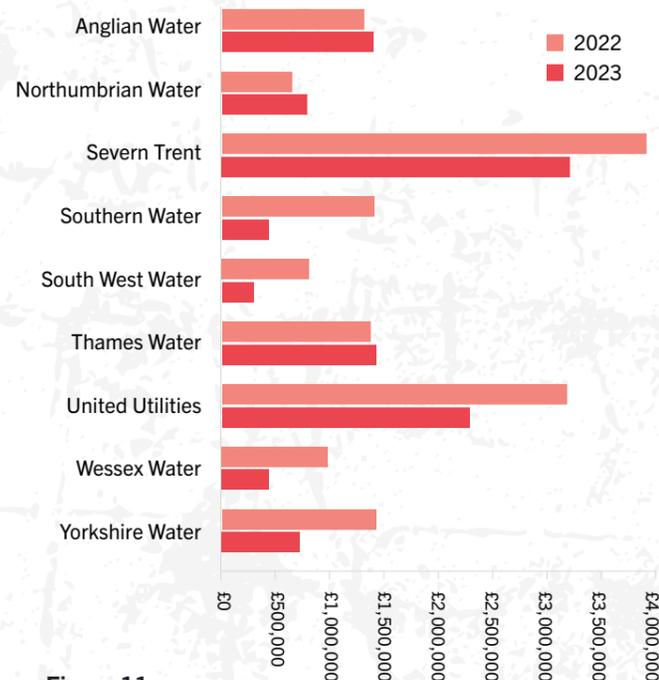


Figure 11
CEO take-home pay for the years ending March 2022 and March 2023.

ANOTHER BILLION LEAVES THE BANK

Despite Ofwat creating new regulations to prevent dividends being paid on poor environmental performance, **ANOTHER £1.4 BILLION** has been funnelled out of England’s water companies (Figure 12).

These millions of pounds that water companies see fit to dole out, go to a mix of external investors and parent companies - where the trail of money gets even more murky.

This year a minority of water companies have attempted to explain their corporate structure (for example Severn Trent and Southern Water, but for the most part, understanding where the money goes is a difficult task which is still not transparent to the public (see Figure 13 for each water company’s parent and owner).

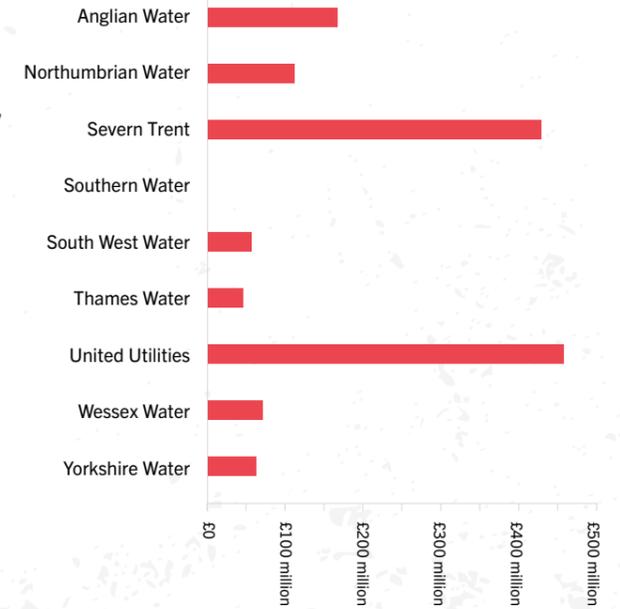


Figure 12
Water company dividends paid year ending March 2023 (£ millions).

Figure 13

Water company parent companies and owners.

WATER COMPANY	OWNERS	PARENT COMPANY
Anglian Water	Osprey Consortium (led by 3i and Canadian and Australian pension funds)	AWG plc
Northumbrian Water	CK Infrastructure Holdings (based in Hong Kong)	Northumbrian Water Group plc
Severn Trent	Range of shareholders including Black Rock (American multinational investment company based in New York City)	Severn Trent PLC
South West Water	Range of investors including Black Rock (an American multinational investment company based in New York City)	Pennon
Southern Water	Macquarie Asset Management	Greensands Holdings
Thames Water	German Utility giant RWE	Thames Water Holdings Plc
United Utilities	Range of investors including Black Rock (an American multinational investment company based in New York City)	United Utilities Group
Wessex Water	Malaysian power company YTL Corporation.	
Yorkshire Water	Saltaire Water (based in UK)	Kelda Group

NATION FOCUS: ENGLAND

**SPOTLIGHT:
DIRTY MONEY (CONTINUED)**

WHERE DOES THE MONEY REALLY GO?

What we do know is, ultimately the privatised English sewage system is being rinsed for cash, which ends up in the hands of companies based across the world from **GERMANY** and **CANADA** to **MALAYSIA** and **AUSTRALIA**.

Only one of nine companies are majority owned by UK based investors. Do these parent companies have the UK public and environment at heart? The gross and negligent under-investment of sewage infrastructure since privatisation suggests not.

? WHAT NEEDS TO HAPPEN?

We are calling on this and the next government to;

STOP POLLUTION FOR PROFIT

Water companies' first responsibility must be to the environment, not their shareholders and executives.



- ✓ Cap CEO bonuses
- ✓ Make dividends dependent on environmental performance

Figure 14

Primary countries water companies' shareholders are based.





NATION FOCUS: SCOTLAND

NATION FOCUS: SCOTLAND

SCOTLAND'S HIDDEN SEWAGE

HOW IS SEWAGE MANAGED IN SCOTLAND?

Scotland's public drinking water and sewerage services are provided by publicly owned, Scottish Water.

As a public company, the Scottish government and Scottish Parliament ultimately have the power to set out what Scottish Water should be focussed on, and to hold the company to account if they are falling short. The Scottish Environment Protection Agency (SEPA) is responsible for regulating Scottish Water's environmental performance.

Unlike in England and Wales where nearly 100% of Combined Sewer Overflows (CSOs) are monitored, in Scotland under 4% of overflows are required to be monitored¹². This means the Scottish public are in the dark about the performance of the other 96% of overflows.

Scottish Water has set out plans to improve the monitoring of sewage pollution and reduce the number of discharges in their Improving Urban Waters Route map¹¹.

Scottish Water operates over 3,600 sewage overflows in Scotland, but last year only 103 of these were required to be monitored. What information is available is only published annually, rather than in real-time.

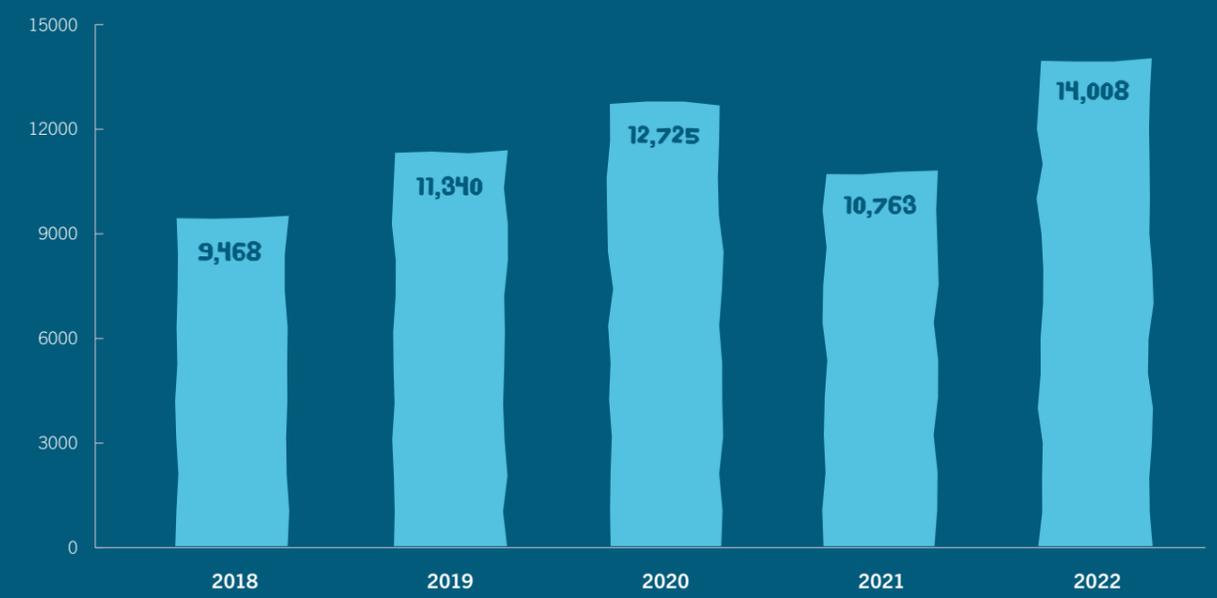
Data from the 4% of reported sewage overflows is made available due to their 'high priority' status, as defined by SEPA. This includes important sites such as bathing waters and shellfish areas – though importantly, **NOT ALL BATHING WATERS ARE REPORTED**. Even two popular locations for water users featured in this report, Thurso (a world-famous surfing location) and Portobello in Edinburgh (a popular beach, with thousands of visitors), have noticeably no reporting whatsoever.

The impacts of untreated sewage overflows on blue spaces throughout Scotland therefore **REMAIN LARGELY UNKNOWN**, and Scottish water users rarely have any idea whether it's safe to use their local water or whether they will unknowingly **SWIM IN SEWAGE**.

WHAT DOES THE DATA SHOW?

Just like in the rest of the UK, overflows in Scotland are only legally allowed to be used in 'exceptional circumstances' such as during periods of unusually heavy rainfall. However, over the last five years, untreated sewage has been released **58,304 TIMES**, and this is just from 161 sewage overflows in Scotland that were reported on. This amounts to 604,643 hours in total. In 2022 alone, untreated sewage was discharged at least 14,008 times for 113,230 hours.

Figure 15
Number of reported sewage discharges in Scotland between 2018 and 2022.



Q NATION FOCUS: SCOTLAND

SCOTLAND'S HIDDEN SEWAGE (CONTINUED)

DISTRIBUTION OF DISCHARGES

Of the 22 Scottish counties which were monitored for sewage overflow discharges between 2018-2022, Argyll and Bute had the highest number, with a total of 12,085 over this period.

After this, South Lanarkshire had the highest number of discharges at 11,428 over five years. Whilst these two counties had higher numbers of monitored overflows – 34 and 24 respectively – even counties with fewer sewage overflows still received high amounts of discharge. For example, Perth and Kinross had just two monitored sewage overflows over the five-year period but this culminated in 299 total discharges.

HOW RELIABLE IS THE DATA?

Even the little data we do have is patchy. According to Scottish Water reports, three sewage overflows that were reporting annually are now only reporting for the bathing season due to the licence agreement.

THIS MEANS THAT SEPA IS, IN SIMPLE TERMS, REJECTING MORE EVIDENCE OF POTENTIALLY ILLEGAL DISCHARGES.

Between 2018 and 2020, when all annual discharges were reported, these three overflows discharged a total of 381 times. Since then, the reporting of these events has become patchier, but this doesn't mean they aren't still having significant impacts. On top of this, some overflows that were previously monitored now go entirely unreported, having been labelled as having "no licence requirement for reporting. Therefore, was not included on returns for 2019 onwards".

WHAT DOES ALL OF THIS MEAN?

Approximately 96% of Scotland's sewage overflows are unreported, meaning that current data only shows a small fraction of the total amount of sewage that is being pumped into Scotland's waters.

This includes important locations such as Sites of Special Scientific Interest, Designated Bathing Waters, and other popular swim and surf spots. From reported data we do have, we know that untreated sewage has been discharged tens of thousands of times in the past five years, suggesting that the total amount being discharged from the 3,641 sewage overflows across Scotland is likely to be in the hundreds of thousands.

Scottish Water has promised to install monitoring equipment on 1,000 of the highest-priority sewage overflows by 2024. Whilst the remaining 2,600 are to be considered in terms of cost and benefit. Scottish Water has stated that they do not believe it will be beneficial to monitor due to an absence of evidenced environmental impact¹³. This means that it is unlikely we will get the full picture of the scale of sewage pollution in Scotland any time soon.

In addition to publishing retrospective data for overflows, we want real-time data so the general public can make an informed choice when entering the water. Whilst Scottish Water have outlined their plan to publish near real-time data by the end of 2024, this will only include monitors that are currently being reported.

BUT WHAT ABOUT THE COST TO HUMAN HEALTH AND LIVELIHOODS?

Thurso is one of many well-used locations, with zero monitoring – does Scottish Water believe that it's not worth the cost to make Scotland's top surf location safe to use?

We've interviewed local surfers and swimmers who are affected by regular discharges at their break (watch their interviews in the online report).

Finn MacDonald, lives in Thurso and runs North Coast Water Sports with his partner Iona.

“ I've had surfs where I've come out feeling really ill, I've had itchy skin, it's not been very pleasant.

There's always loads of stuff getting swept out of the river whenever there has been rain...everything just ends up in that river and goes straight out to the lineup...It would be a much nicer experience to be able to surf without being terrified that you're going to be spewing later on.”

- Finn MacDonald

WHAT NEEDS TO HAPPEN?

Surfers Against Sewage are calling on the Scottish Government to direct Scottish Water to install event duration monitoring on all overflows and for that data to be freely and easily accessible to the public in real-time. We need the government to move forward and act on the sewage pollution we know is occurring by setting progressive sewage reduction targets to end untreated discharges into bathing waters, popular water usage areas and high priority nature sites by 2030.



FINN MACDONALD • NORTH COAST WATER SPORTS

Q NATION FOCUS: SCOTLAND

SPOTLIGHT: THE PORTY WATER COLLECTIVE

Charlie has been representing Surfers Against Sewage in his home city of Edinburgh for four years, he helped lead last year's Paddle Out Protest in Scotland and has been campaigning against plastic pollution through beach cleans on Portobello Beach.

This year, Charlie along with other locals from Portobello, are embarking on a new and exciting way to campaign. They've set up the Porty Water Collective, a hyper-local community dedicated to improving the ocean from their local beach.

"The Porty Water Collective is a collection of individuals, organisations, community groups and charities all committed to protecting the blue spaces in and around Portobello. Why we exist: There is SH*T in our water."

But what's different about this new collective? Charlie tells us that it's all about local connection and a greater sense of ownership, as well as a way to give a more diverse community a soft introduction to the world of activism.

"When people hear the word activism they get scared, they think activists are dangerous non-conformists. Whenever I speak at demos, I stress that activism is about care and an act of love.

It's okay to feel angry about plastic pollution or the water quality in the spaces we share. It does feel important to add that we are a collective, there is no template we are following, and no leader, although we are grateful to be backed and supported by local reps and SAS HQ."



The Porty Water Collective has been set up as a reaction to the ongoing poor state of water quality in the area, which is impacted by several sewage overflows which bring sewage downstream into the sea via the Figgate Burn (known locally as Figgy Burn).



"It's obvious from walking the beaches, from the number of baby wipes there is a massive sewage-related problem. Something that is ignored by SEPA and Scottish Water.

What we know from 2021 water quality testing (part of SAS 2021 Water Quality Report) and now with the Collective's water quality testing (backed by SAS) - is that there are dangerously high levels of E.coli and chloroforms in the Figgy Burn from CSOs further up it.

Not all the locals know this."



Charlie proceeds to tell me how the water quality testing the Collective is now doing is helping to raise awareness in the local community. People are always interested in what they are doing, and the volunteers doing the testing are always happy to explain.

"Took a test on Monday afternoon, a mum walked by with a toddler, thinking what's that man doing, fishing for shitty water, what's it going to be like... The mum nodded. She already knew. There is an awareness but some cognitive dissonance as a society about lots of things going on with our natural world."



As I learn more about the Collective, Charlie reminds me that this is only the start, they have lots of plans for the next six months, year and onwards – and the collective is growing organically. The Collective has plans to keep testing the water quality regardless of the official bathing season and wants to begin discussions with local government to get conversations started in the corridors of power.

They've been training up new volunteers to help test the water as they join the ranks, and are keen for more members.

"If people are concerned about water quality and the natural environment, looking after our local natural species in Portobello, in Edinburgh, contact us and open a discussion! We are hoping as we progress and monitor what we are doing, we can draw on our experience to help collectives in other parts of Edinburgh or other cities around the UK."

It's clear that the Porty Water Collective have passion and drive to make a difference in their local area, and in time, their work will help influence changes in water quality legislation on a national level.

We'll be keeping in touch with Charlie and the Porty Collective to see the latest water quality results from the Figgy Burn and support them as their local campaign progresses.

Izzy Ross - Campaigns Manager



DEMO @PORTOBELLO BEACH!

The Porty Water Collective and local SAS reps are holding a demonstration at Portobello Beach on **SATURDAY 25TH OF NOVEMBER** to raise awareness of the sewage issue plaguing Scottish beaches. Join us in support, come down for a discussion on Scottish water quality issues or get in touch if you want to get involved in the future.

CONNECT @SASSOUTHEASTSCOTLAND ON INSTAGRAM AND FACEBOOK

Q NATION FOCUS: SCOTLAND

THE IMPACTS OF UNTREATED SEWAGE OVERFLOWS ON BLUE SPACES THROUGHOUT SCOTLAND REMAIN LARGELY UNKNOWN, AND SCOTTISH WATER USERS RARELY HAVE ANY IDEA WHETHER IT'S SAFE TO USE THEIR LOCAL WATER OR WHETHER THEY WILL UNKNOWINGLY SWIM IN SEWAGE.



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NATION FOCUS: WALES

THE TRUE SCALE OF SEWAGE DISCHARGE

NATION FOCUS: WALES

HOW IS SEWAGE MANAGED IN WALES?

Water is a complicated area of devolution in Wales as many rivers flow between England and Wales such as the River Severn and River Wye.

Water company boundaries are also based on networks of pipes that predate devolution and therefore cross national borders meaning there's a lot of cross-over between Welsh and English water policy.

There are two companies in Wales, the largest of which is Dŵr Cymru (Welsh Water) which is not-for-profit and operates solely in Wales. The other is Hafren Dyfrdwy (part of Severn Trent).

Senedd Cymru and the Welsh government have the power to set the environmental regulations that both companies should follow, and Natural Resource Wales (NRW) manages these water companies' compliance with these environmental regulations. Like England, Wales is financially regulated by Ofwat.

The Welsh government have set out the 'Environmental Regulation of Overflows: Action Plan'.¹⁴ Which is their plan for how to deal with the discharging of untreated sewage.

There are a total of 1,995 sewage overflows in Wales, owned and managed by two separate water companies; Dŵr Cymru (Welsh Water) and Hafren Dyfrdwy.

Both of Wales' water companies have good records for monitoring overflow events; 100% of Hafren Dyfrdwy's overflows are fitted with event duration monitoring equipment, and 99.8% of Dŵr Cymru's are fitted with monitoring equipment. **ALTHOUGH MONITORING LEVELS ARE PRETTY TOP-TIER, THE AMOUNT OF SEWAGE COMING OUT OF SEWAGE OVERFLOWS IN WALES IS NOT.**

HOW MUCH SEWAGE DOES HAFREN DYFRDWY ACTUALLY DISCHARGE?

Hafren Dyfrdwy's relatively small size, combined with the fact that it is owned by parent company Severn Trent (an English water company) means that it is often overlooked when considering sewage infrastructure, assets and discharges in Wales.

However, despite Hafren Dyfrdwy's sewage overflows making up just 2.45% of the total number in Wales, they discharged a total of 1,422 times in 2022, for 10,631 hours. That is an average of 7.5 hours per discharge. Many of these sites discharged into popular rivers amongst water users, such as the upper lengths of the famous River Severn.



Figure 16
Location of Hafren Dyfrdwy's wastewater service area and the locations of sewage discharges that occurred during the 2022-23 bathing season.

Q NATION FOCUS: WALES

THE TRUE SCALE OF SEWAGE DISCHARGE (CONTINUED)

In the grand scheme of things, Hafren Dyfrdwy's discharge hours may seem small in comparison to the mammoth 602,987 hours discharged by Dŵr Cymru in 2022.

Some of these discharges have been identified by Natural Resources Wales (NRW), the regulator, as being **NON-COMPLIANT**, meaning that the water company has failed to do what was **AGREED IN THEIR PERMIT**. In 2022, Hafren Dyfrdwy were identified as not complying with permits for one of their pumping stations, with a storm overflow seen to be discharging in non-storm conditions (in breach of its permit) due to a 'blockage'. Other assets were also found to be non-compliant due to failing to supply information required by improvement conditions in their permits.

For Dŵr Cymru, a staggering **170** permitted storm overflows were found to be **IN BREACH OF PERMITS**, for a variety of reasons including failing to supply data, failing to supply improvement information, and discharging in non-storm or non-emergency conditions. Both Hafren Dyfrdwy and Dŵr Cymru have subsequently been issued with warnings from NRW, and in October 2022 were issued with fines amounting to **£8 MILLION FOR DŴR CYMRU AND £400,000 FOR HAFREN DYFRDWY** by Ofwat for their ongoing failure to meet targets.

All in all, this paints a picture of a nation riddled with sewage problems. Many Welsh beaches and rivers are situated in national parks, near sites of special scientific interest, or are popular with water users (whether designated as official bathing waters or not). Despite this they are subject to hundreds of thousands of hours of annual sewage discharge – a total of 613,618 hours, that's equivalent to **25,567 CONTINUOUS DAYS OF SEWAGE DISCHARGE IN 2022**.

WHAT ARE THE TWO WELSH WATER COMPANIES DOING ABOUT THIS?

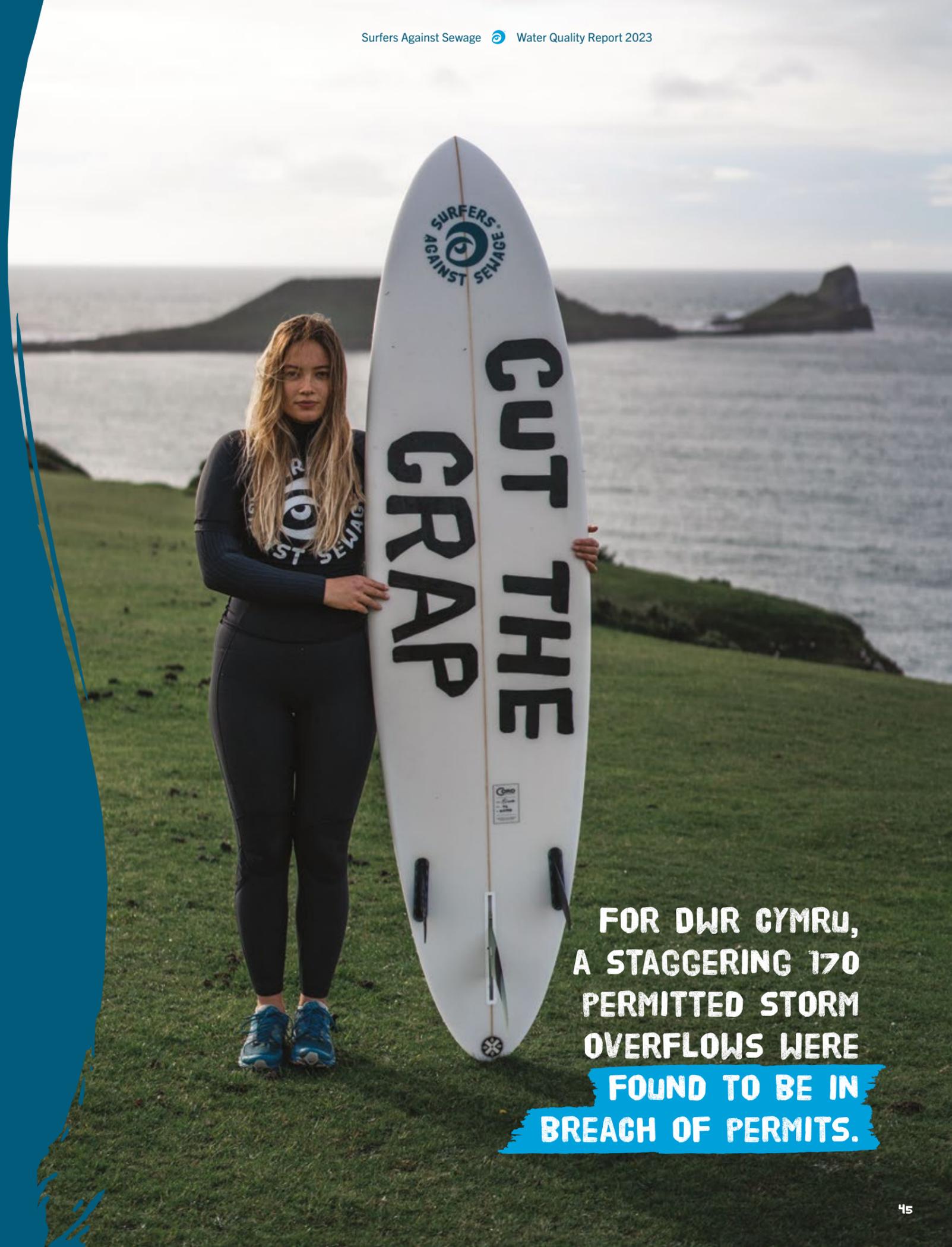
Whilst Dŵr Cymru and Hafren Dyfrdwy are some of the first water companies to achieve near-full monitoring of their sewerage assets, this is only the start of fixing the problem. The data is, as with many other water companies, largely provided retrospectively. It is vital to provide real-time and easily accessible discharge data to communities and the public.

Dŵr Cymru have outlined their ambition to report on 150 sites in near real-time by January 2024 with the aim to have all 2,300 sites reporting by March 2025.

Knowing how much sewage is discharging is only the start – it's gathering the data before the real work begins. Now Dŵr Cymru and Hafren Dyfrdwy need to turn their attention to significantly reducing their discharges of untreated sewage, that are plaguing Welsh beaches and popular river swim spots throughout the country.

As this work to implement solutions progresses, in Wales and across the rest of the UK, it's essential that water companies **PRIORITISE THE USE OF NATURE-BASED SOLUTIONS**. From sustainable drainage systems (SuDS) and constructed wetlands at a local level, to landscape scale restoration projects, nature has huge potential to relieve the pressure on sewerage systems and prevent the use of overflows.

When used in the right place and cared for effectively, they can be the most cost effective option with the co-benefits of **TRAPPING CARBON, IMPROVING BIODIVERSITY** and **REDUCING FLOOD RISK**.



FOR DŴR CYMRU, A STAGGERING 170 PERMITTED STORM OVERFLOWS WERE FOUND TO BE IN BREACH OF PERMITS.

Q NATION FOCUS: WALES

SPOTLIGHT: IS WELSH WATER ABOVE THE LAW?

Cardigan Bay in West Wales is home to some of the UK’s most diverse and exciting marine wildlife. One of only two resident populations of Bottlenose Dolphins in the UK inhabit the bay, making it a Special Area of Conservation (SAC). The River Teifi, which flows into the bay at Poppit Sands, is also a designated Site of Special Scientific Interest (SSSI) meaning that it is protected by law due to its geological and ecological importance.

But over the last year, Welsh Water (Dŵr Cymru) dumped raw sewage into the River Teifi an average of **5.2 TIMES A DAY**¹⁶. Poppit Sands (a bathing water consistently rated as “excellent”) flew its Blue Flag this summer despite its known pollution. Just one year previous, it was named the **WORST BLUE FLAG BEACH IN THE WHOLE OF THE UK**, due to 79 sewage dump incidents¹⁷.

Sewage pollution in the River Teifi also directly affects one of Wales’ best surf spots at Gwbert. Some local surfers there have simply accepted they will get sick every time it’s firing.

So, it’s no wonder the River Teifi recently hit the headlines. Dŵr Cymru admitted to breaching permits and discharging untreated sewage at a number of treatment plants, with one of the worst cases being in Cardigan.



Figure 17
Location of Poppit Sands.



ILLEGAL ACTIVITY?

Dŵr Cymru’s treatment works operate under an environmental permit issued by Natural Resource Wales (NRW). These permits set out the rules for what each overflow can do.

Permits specify the conditions the site must meet and when they can discharge. NRW is responsible for checking and enforcing compliance with these permits.

The permit system for overflows is complex, antiquated and a breeding ground for loopholes and illegal discharges.

Let’s look at two examples.

1. Unpermitted Discharges

A water treatment works can only legally discharge sewage from an overflow **IF IT HAS A PERMIT**. Therefore, logic would imply, all unpermitted discharges are **ILLEGAL**. We didn’t have to look far to find suspicious activity on unpermitted overflows. Dŵr Cymru published a whole database of unpermitted sewage overflows on their website, with 142 unpermitted overflows discharging 4,197 times last year. Why?

2. Emergency Overflows

There is a specific overflow called an emergency overflow (EO). These are only allowed to discharge if there is a **CATASTROPHIC** or **EMERGENCY EVENT**, as defined in their permit.

The Gwbert Emergency Overflow, which impacts the bathing water of Poppit Sands, discharged **24 TIMES** in the last two years. This indicates a clear breach in their permit.

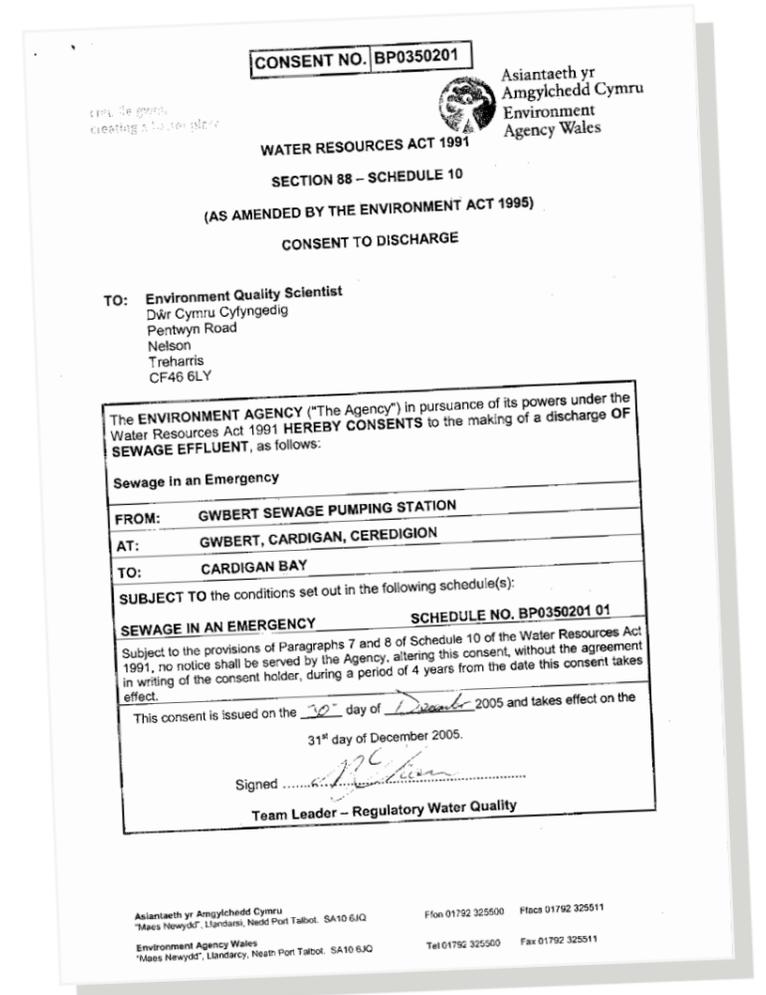


Figure 18
Gwbert Pumping Station Permit.

Rather than addressing the discharges, we anticipate Dŵr Cymru will ask for an upgrade to this permit, which would essentially legalise these discharges. Ironically, even if this overflow had an upgraded permit, it would still fail to meet targets as it would not be allowed to discharge more than three times a year due to its impact on a bathing water.

Another emergency overflow in Abergavenny discharged the equivalent of twice a week last year. Did this particular sewage works really have 123 catastrophic failures last year?

IT’S COMPLETELY UNACCEPTABLE.

Dŵr Cymru is using their assets in whichever way they want, **REGARDLESS OF PERMIT, REGARDLESS OF IMPACT ON ENVIRONMENT, and REGARDLESS OF REGULATORS TAKING NOTICE**. If the simple logic in permits is not being followed, the water companies have freedom to continually pollute and continually get away with it!

Annie McKelvey, Water Quality Data Officer & Freya Harris, Campaigns Officer

Q NATION FOCUS: WALES



GET INVOLVED!

SAS Reps in Wales are hoping to MEET WELSH WATER to share the Water Quality Report at the Senedd.



FOR UP TO DATE INFORMATION ON HOW TO GET INVOLVED, VISIT THE ONLINE REPORT.

WHAT NEEDS TO HAPPEN?

We are calling on this and the next government to;

EMPOWER A NATURE LED APPROACH



Harness the power of nature to end sewage pollution.

- ✓ Remove barriers to the adoption of nature-based solutions
- ✓ Require water companies to prioritise the use of innovative and effective nature based solutions

ENFORCE THE LAW



We have the regulations and laws we need to end sewage pollution. Now we must enforce them.

- ✓ Regulators uphold the law
- ✓ Regulators are well funded and resourced
- ✓ Polluters pay

REVEAL THE TRUTH



We need UK wide transparency about sewage pollution.

- ✓ Accurate and accessible real-time water quality information year-round
- ✓ A transparent bathing water application process
- ✓ Water quality testing that shows the full picture
- ✓ Transparency across the sewage system

NATION FOCUS: NORTHERN IRELAND

LITTLE DATA BIG ON POLLUTION

NATION FOCUS: NORTHERN IRELAND

HOW IS SEWAGE MANAGED IN NORTHERN IRELAND?

Northern Ireland Water (NIW) is the sole provider for water and sewerage in Northern Ireland. It is a company entirely owned by the Northern Ireland government.

The environmental regulator is the Northern Ireland Environment Agency (NIEA) which is an Executive Agency within the Department of Agriculture, Environment and Rural Affairs (DAERA). This means it has very little independence.

Crucially in Northern Ireland, there is currently no functioning government, as a result of power-sharing agreements breaking down.

This means that **IMPORTANT DECISIONS** about how to protect and restore the environment in Northern Ireland are **JUST NOT BEING MADE.**

Northern Ireland Water is responsible for operating the sewage network throughout the nation. This includes regulating its sewage overflows, which are designed to discharge sewage in exceptional circumstances of heavy rainfall, but which are now being used far beyond their original purpose.

This is resulting in raw sewage regularly being pumped onto beaches and popular inland bathing sites across Northern Ireland (and the rest of the UK). Northern Ireland's sewage issues are no different from the rest of the UK. We might not have the data to back it up, but they're using the same antiquated system and dumping sewage from Belfast to Portrush.

Northern Ireland has a total of 2,398 operational sewage overflows¹⁹, however, data for the operation of this infrastructure is sparse. Up until November 2023 there was no transparency about the location of these sewage overflows in Northern Ireland, meaning that vital information regarding the safety of waters for people and ecosystems was unavailable. Whilst Northern Ireland Water have provided a map of the locations of overflows they still provide no data on how often these overflows are discharging sewage, which they say is due to a lack of investment and budget for the provision of infrastructure to monitor sewage discharges. All information regarding sewage assets (including condition and performance) is obtained through manual inspection, rather than automated systems as with other UK-based water companies. This means we have little to no information regarding the state of Northern Ireland's water and the potential impact that sewage discharges are having on them. **NOT EVEN NORTHERN IRELAND WATER KNOWS HOW MUCH SEWAGE THEY ARE DUMPING!**

WHAT DATA IS AVAILABLE?

For the 2023 bathing season, the Department of Agriculture, Environment and Rural Affairs (DAERA) made a small amount of water quality data available to Surfers Against Sewage through a trial developed by Swim NI for use in our Safer Seas and Rivers Service.

This data includes a priority six locations selected as a pilot study to provide information on potential reduced water quality. The data is generated using a Pollution Risk Forecast (PRF) model, which uses information such as weather data to determine a statistical likelihood of reduced water quality. It is important to note that PRFs are only predictions, and do not provide verified data regarding pollution events that are occurring or have occurred. This prediction runs all year round, but DAERA does not validate the forecast outside the bathing season which is why we can't show the predictions on the SSRS. Once the model is past the pilot stage, we will be able to notify people of these risks all year round.

Whilst this is a positive step, it's not enough. At the very least we need to see more PRF locations across popular bathing locations²⁰ which are displaying data all year round. Ultimately, we need real-time sewage alerts to be put in place by Northern Ireland Water, so swimmers, surfers and dippers can protect themselves from direct discharges of untreated sewage.

Q NATION FOCUS: NORTHERN IRELAND

**LITTLE DATA
BIG ON POLLUTION (CONTINUED)**

When questioning Northern Ireland Water on how they manage discharges, they told us that they don't currently have the ability to accurately record or measure when discharges occur and how long they last for. They therefore don't keep a record of the number of occasions, duration or actual volumes of releases into public waterways from the waste water system.

IT'S TIME TO RAMP UP OUR VOICE IN NORTHERN IRELAND AND DEMAND BETTER TRANSPARENCY AND ACCOUNTABILITY FROM POLLUTERS.

WHAT DOES THIS DATA SHOW?

For the six sites which were used as PRF trials during the 2023 bathing season, four received alerts.

Two bathing locations, Ballywalter and Castlerock, received 41 PRF alerts over the period between the 1st of June and the 15th of September 2023. Shockingly, this amounts to over two PRFs per week during the bathing season.

Figure 19
Number of PRF alerts at the monitored bathing sites



Figure 20
Bathing sites that receive daily forecasts during the bathing season.

- Receives daily forecast
- Does not receive daily forecast



NORTHERN IRELAND WATER'S PLANS FOR THE FUTURE

With sewage pollution on the national agenda, Northern Ireland still has no way of monitoring their discharges, and their plans to introduce sufficient monitoring leave much to be desired.

The first phase of the deployment of event duration monitors for obtaining sewage discharge information on Northern Ireland Water's assets is scheduled for next year. It will be focused on bathing waters and shellfish waters and there are plans to have monitors installed on assets near the highest priority waters by June 2024, with information being sent directly back to the water company.

By the end of 2027, they aim to have over 900 monitors deployed, with the eventual aim of deployment on all sewage overflows¹⁹. Despite this, Northern Ireland Water has provided little information with regards to how they plan to disseminate this vital information to water users and the public, whether the information will be real-time, accessible or even be made public at all.

The very first step to clean up the state of water in Northern Ireland is for the government and water companies to provide accurate real-time water quality information for all. Water users around Northern Ireland have the same right to make educated decisions about how they use the water as anywhere else. Now we need the data to make that happen.

Q NATION FOCUS: NORTHERN IRELAND

SPOTLIGHT: THE DEATH OF LOUGH NEAGH

Walking towards Lough Neagh for the first time, I'm struck by the scale of it (the lake is the largest in the British Isles). Although the lake has returned to an earthy brown as the autumn cold sets in, I'm reminded that only a month ago you could see the luminous green layer of poisonous algae that covered vast areas of its surface.

For some, this might have been an interesting spectacle, but I already know what the presence of blue-green algae at the scale seen means for the lake and for the wildlife interacting with it.

The lake is dying and is taking victims as it goes. Lough Neagh has been connected with multiple deaths of dogs over the last year, and dead swans and other birds are increasingly becoming a common scene. Swimming at Lough Neagh has been banned all summer.



Mary O' Hagan is a swim coach and runs the Ballyronan Blue Tits group. Mary has been cold water swimming for four years which has helped with both her physical and mental health.

"I have a really strong connection, particularly to Lough Neagh. I started cold water swimming because I was in a lot of pain, daily pain, chronic pain that I had for a number of years. When I can't get in the water, its taking a way a massive coping mechanism for me." - Mary

Contact with blue-green algae for humans can mean diarrhoea, conjunctivitis, skin and throat infections.

FOR ANIMALS SUCH AS DOGS, BIRDS AND CATTLE, IT CAN QUICKLY LEAD TO ABDOMINAL SWELLING, SEIZURES, LIVER FAILURE AND DEATH.



"We've seen trails of dead animals along areas with really really dense green algae...I've not been able to walk my dog at Lough Neagh or any of the surrounding rivers all summer because I'm scared she's going to die" - Mary

But why have these cyanobacteria appeared in such force at Lough Neagh? DAERA state that an unfortunate but unavoidable mix of sunlight, and clear water columns (due to an influx of invasive filter feeding Zebra Mussels) has led to this algal bloom.

But Ruby Free and many other campaigners have been working tirelessly to expose the truth of what's caused what they have deemed as the death of Lough Neagh.



Ruby tells us what's in the water

"Lough Neagh is one of the largest freshwater lakes in Europe, we should be able to use this incredibly large resource but instead it's been unusable, it's unacceptable. It was all avoidable but we've had years of damaging environmental policies which incentivise intensive farming and allow sewage discharges to be dumped into Lough Neagh. All that nutrient overload has built up and amplified the process of blue-green algae (cyanobacteria) being produced in the lough - it's turned the water toxic. The scientists have been banging on the door of DAERA for years, and know this was all avoidable. We're all upset and angry because we know this didn't need to happen. It's not just water users, everyone is being affected." - Ruby

Entering the water at the lake has been banned since the beginning of summer. DAERA have said it may be years before swimmers can safely get back into Lough Neagh.



But what's going on here doesn't just affect the minority swimmers, dippers and paddle-boarders who use the lake for recreation.

The poison that's taken hold of Lough Neagh is making its way down to the coast. Rivers and lakes are the veins of our land and lead right into the heart of the ocean. So, it's not shocking to learn that Castlerock, a designated bathing area on the north coast, has this summer been affected by the blue-green algae coming downstream from the great lake.

On the 7th July, DAERA informed us that sampling had confirmed potential blue-green algae at Castlerock with the source identified as the River Bann, the river coming directly from Lough Neagh. DAERA could not confirm if there was a risk to human health but put a precautionary alert in place for three days which we displayed on the Safer Seas and Rivers Service (SSRS).

Despite this confirmed presence of algae, the bathing water profile for Castlerock **STILL INDICATES THERE IS NO RISK OF BLUE-GREEN ALGAE AT THIS LOCATION.**

"We've had to cancel sessions at the Wave Project because of the blue-green algae here in Lough Neagh travelling up the river affecting the beaches on the north coast. We've had to cancel sessions and we've had sessions where young people (who are with us because it is a safe space) have also not come to sessions because they have felt anxious, they're too scared to go into the water" - Carla



Q NATION FOCUS: NORTHERN IRELAND

SPOTLIGHT: THE DEATH OF LOUGH NEAGH (CONTINUED)

Solutions for tackling algal blooms of this scale can be complex, but one solution is not. Substantially reducing the colossal amount of agricultural slurry and sewage going into the lake will cut the algae off from its nutrient source. Yet DAERA and NI government have allowed the continuous influx of slurry, and **OVER 200,000 SEWAGE DISCHARGES INTO THE LAKE.**

"12% of Northern Ireland's wildlife risks extinction, this needs to be taken seriously, that means forever. The pollution from sewage and farmland run-off is incredibly destructive and is going to bring that number even higher. Recently we experienced a major fish kill in a river in County Down. This mass pollution event has wiped out generations of young trout and salmon populations which were already in severe decline. These things are happening across the country all the time." - Ruby

Campaigners want to see an end to this vast influx of pollution, but because Stormont (NI government) has been suspended for nearly 19 months, it has been left to civil servants to tackle without any major political interventions.

In October 2023, DAERA missed the deadline to submit their Nitrates Action Plan for the next four years, indicating that agricultural pollution is not a high-priority matter. Northern Ireland Water is substantially behind the curve on tracking its own sewage discharges, let alone implementing any solutions to reduce them.

"We need DAERA and the government to implement action. We've said time and time again, we want to help and be part of the solution, working together. We need more people coming together behind this collective voice. Funding needs to be redirected to improving the water treatment networks, we know farming policy can be changed. This is affecting everyone, you, your children and your grandchildren - please (to DAERA and the government) do something" - Ruby

Our natural environment is not a dumping ground for our waste. Sadly, Lough Neagh has become a stark example of what happens to wildlife following years of gross-mistreatment – and is an indication of things to come as we keep dumping sewage and slurry into our water across the UK.

Izzy Ross - Campaigns Manager



YOU CAN WATCH RUBY AND MARY'S STORIES ON THE ONLINE VERSION OF THE REPORT AT [WATERQUALITY.SAS.ORG.UK](https://waterquality.sas.org.uk)

WHAT NEEDS TO HAPPEN?

We are calling on this and the next government to;

REVEAL THE TRUTH

We need UK wide transparency about sewage pollution.

- ✓ Accurate and accessible real-time water quality information year-round
- ✓ A transparent bathing water application process
- ✓ Water quality testing that shows the full picture
- ✓ Transparency across the sewage system



GET INVOLVED!

SAS Northern Ireland Reps are **PLANNING A DEMONSTRATION** and are working on gaining an audience with the **NI GOVERNMENT** to discuss some of the sewage and agricultural issues currently plaguing the nation, specifically what can be done to save Lough Neagh.



FOR UP TO DATE INFORMATION ON HOW TO GET INVOLVED, VISIT THE ONLINE REPORT.

THE UK UNITES AGAINST SEWAGE POLLUTION



Across the four nations of the United Kingdom, we see a disappointing and diverse range of sewage issues.

In Northern Ireland, there is a **COMPLETE LACK OF MONITORING**, years behind the curve. Even Northern Ireland Water don't know how much raw sewage they're dumping onto the beaches and rivers of the nation. From the sliver of data they have supplied this year, we can see beaches with pollution risk forecasts happening on average **TWICE A WEEK** through the bathing season.

Similarly, Scottish Water are dragging their heels with monitoring, only reporting on 4% of their sewage overflows. Over the last five years, untreated sewage has been released from 161 sewage overflows in Scotland a staggering 58,304 times. **WE CAN ONLY IMAGINE WHAT'S COMING OUT OF THE OTHER 96%.**

Citizen science water quality testing of England's rivers has revealed that **60% OF POPULAR BATHING SITES DON'T MEET MINIMUM SAFETY REQUIREMENTS FOR WATER USERS**. Testing from upstream and downstream of sewage overflows has shown a direct impact on water quality across four different locations. In 2022, England suffered 301,091 sewage discharges, yet English water companies **PAID DIVIDENDS OF £1.4 BILLION AND £11 MILLION** to their CEOs (for year ending March 2023).

Recent news has thrown Wales into the spotlight as it's shown that the water companies in Wales have been **ILLEGALLY DISCHARGING SEWAGE FOR A TOTAL OF 613,618 HOURS**, that's equivalent to 25,567 continuous days of sewage discharge in 2022.

Our own investigation has also revealed Welsh Water has been using their emergency overflows recklessly (and potentially illegally), discharging from Gwbert pumping station 23 times in the last two years. They're using their assets however they like, regardless of permit and regardless of the impact on the environment.

Across the UK, sewage pollution issues are intricate and complex, but we can all relate to is the amount of shit flooding into rivers and seas on a daily basis. The UK as a whole saw untreated sewage gush onto beaches and inland beauty spots **at least 399,864 times last year**.

From Thurso to Fistril, Cardiff to Belfast the symptoms are the same, our wildlife and ecosystems are suffering and people are getting sick.

This year we received **1,924 SICKNESS REPORTS** from water users who got ill after entering the water. From Scotland, Northern Ireland, Wales to England, people are suffering from the same issues after entering contaminated water. Some were sick for a day, some a week and some, sadly, are now suffering from chronic illness.

We've heard from many brave water lovers in this report who have come forward to share their stories and urge for change from governments, regulators and water companies on sewage and other water pollutants.



SOMETHING'S CHANGING...

As we read through sickness reports and images of sewage flowing out onto well-loved beaches, we would be forgiven for feeling like nothing changed from last year – but it has.

Through this report, we've heard the stories of campaigners who are fighting for access to clean and safe water in their area. Their inspirational stories are but a glimpse into the steady stream of community action bubbling up across our nations.

From Ruby's campaign to save Lough Neagh, to Steve and his Scarborough businesses fighting the sewage on their doorstep. And the Citizen Science schemes by the Porty Water Collective to Hannah from the Friends of the Dart community fighting for bathing water designation – these actions by **EVERYDAY PEOPLE WHO GIVE A CRAP**, are culminating into a **TIDAL WAVE MOVEMENT** on water quality across the UK. And we're being heard.

Actions on the ground this year and in the decades before, are not just cleaning up the state of water at a local level, they are also feeding into the national debate and forcing politicians to think about solutions to fix the systemic issues which are the fundamental causes of sewage pollution.

Our collective cries at the lack of water quality information now means by the end of 2023, water companies in England will have to **MONITOR ALL STORM OVERFLOWS**. And this increased amount of data is already allowing us to expose the illegal activities of water companies, and the failure of both governments and regulators to hold them accountable for this.

In Northern Ireland, the outcry from locals has finally got the ball rolling on the provision of at least some kind of water quality data, and whilst the information is weak right now with so much more to be done, we are at least moving in the right direction.

As a result of campaigning this year, England's financial regulator has looked again at whether water companies should be able to dish out bonuses and dividends. And they've started to **HOLD THEM TO ACCOUNT** for this.

There is of course so much more that still needs to be done to truly #EndSewagePollution but we are part of an upswell of action and **AN OPPORTUNITY FOR CHANGE IS APPROACHING**.

THE END SEWAGE POLLUTION MANIFESTO

FROM THE BEACHFRONT TO FRONTBENCHES

In 2024, with the UK general election approaching, we have a once-in-a-blue-moon chance to truly turn the tide on sewage pollution

Wherever you are in the UK, every single candidate is on the hunt for your vote. And by using your power to make them work for your vote, you can help make a change, and make your local beaches and rivers safe again.

To help you do this, we've brought together a coalition of water charities, NGOs and organisations to form the End Sewage Pollution Manifesto – a five-point plan for making the UK's waters healthy and safe again. Created by water lovers united by an ambition to deliver thriving water environments, our collective manifesto sets out the progressive policies that water users want all parties to include in their election promises ahead of the next election. All we need to do now is to make it clear to every party and candidate that if they want our vote they must get behind our manifesto. Over the coming months, SAS communities, reps, supporters and more will be reaching out to their local candidates to call on them to support the manifesto to **#ENDSEWAGEPOLLUTION**.

You don't have to be into politics to get involved, if you want to see clean beaches, rivers, canals and lakes (or lochs) in your local area, then find out more online about how you can take small actions to make big differences in your community.



ENFORCE THE LAW

Everyone should be equal before the law. And that goes for Water Companies too, it doesn't matter who owns them.

That's why our number one priority for any government is to simply enforce the law to ensure storm overflows are only used in exceptional circumstances. To do this, governments must provide environmental regulators with the resources and independence they need to hold polluters to account.



PRIORITISE HIGH RISK POLLUTION

We are water lovers and water users who are getting sick when we do what we love.

We are also the ones witnessing the destruction of the natural ecosystems that clean and healthy water supports. The health of the environment and the people who use it must come first as water companies End Sewage Pollution. Not just tackling the easy problems but those with serious consequences.

That's why we want the next government to take immediate targeted action to end untreated sewage discharges affecting bathing waters, popular water usage areas and high priority nature sites by 2030.



REVEAL THE TRUTH

As we have seen throughout the water quality report there is a complete mishmash of transparency about the state of water quality in the UK and the performance of water companies.

Whilst some nations provide more information than others, no government is showing the true cost of sewage pollution to people or the planet. That's why we want to see UK wide transparency about sewage pollution including accurate and accessible real time discharge information which is consistent on a national scale, year round testing of water quality by regulators and a clear and transparent bathing water application process.



STOP POLLUTION FOR PROFIT

We are in a cost of living crisis, yet executives of Water Companies are receiving huge bonuses whilst presiding over near constant pollution, and shady shareholders are getting rewards for not just mediocre, but worsening performance and in some cases criminal wrong doing. This needs to end.

That's why we want water companies' first responsibility to be to the environment and customers. Government's can start this by putting a cap on CEO bonuses and making the payment of dividends dependent on environmental compliance



EMPOWER A NATURE LED APPROACH

Nature is the very thing we are looking to protect. But nature can also play an active role in reducing sewage pollution.

From sustainable drainage systems (SuDS) and constructed wetlands at a local level, to landscape scale restoration projects, nature has a huge potential to relieve the pressure on sewerage systems and prevent the use of overflows. When used in the right place and cared for effectively, they can be the most cost-effective option to tackle pollution with the co-benefits of trapping carbon, improving biodiversity and reducing flood risk.

That's why we want the next government to put nature first by removing barriers to the adoption of nature-based solutions, and require water companies to prioritise the use of innovative and effective nature-based solutions to solve water quality issues.



FIND OUT MORE ABOUT THE MANIFESTO AND CONTACT YOUR LOCAL MP TO GET THEIR SUPPORT AT SAS.ORG.UK

APPENDIX 1

GLOSSARY

Bathing Season dates

England: 15 May to 30 September

Northern Ireland: 1 June to 15 September

Scotland: 1 June to 15 September

Wales: 15 May to 30 September

Bathing Water Classifications:

The relevant regulators (either the Environment Agency, Natural Resources Wales, Scottish Environment Protection Agency or the Northern Ireland Environment Agency) take water samples which test for indicators of faecal matter at every designated bathing water throughout the bathing season. Classifications for each designated bathing water are calculated annually and are based on water quality samples taken over the previous four years. These results are classified as follows:

Excellent – the highest, cleanest class

Good – generally good water quality

Sufficient – the water meets the minimum standard

Poor – the water has not met the minimum standard and bathing is not advised. Work to improve water quality at poor sites are detailed in the sites profile on the regulators site.

Classifications were not provided for designated bathing waters by the Environment Agency in 2020 due to the impact of COVID-19 preventing water quality sampling.

Citizen Science:

Citizen science is the involvement of members of the public in scientific research. For example, Surfers Against Sewage use data collected by citizen scientists in our annual Brand Audit Report which analyses plastic pollution collected on beach cleans across the UK by members of the public. Citizen science can be at a global level or at a smaller scale within communities.

Combined sewage overflow (CSO):

Sewage overflows, sometimes referred to as combined sewage overflows (CSO), storm overflows or pumping stations, are part of our sewerage infrastructure owned and maintained by water companies. They are designed to discharge untreated wastewater in periods of exceptional rainfall to stop sewage backing up into people's homes.

Constructed wetlands:

A constructed wetland is a wetland environment which has been artificially made to treat sewage, greywater, stormwater runoff or industrial wastewater.

DAERA:

DAERA is the department of Agriculture, Environment and Rural Affairs in Northern Ireland. It has responsibility for food, farming, environmental policy and the development of the rural sector.

Defra:

Defra is the Department of Environment, Food and Rural Affairs. Although Defra only works directly in England, it works closely with the devolved administrations in Wales, Scotland and Northern Ireland.

Designated bathing waters:

Designated bathing waters are locations popular with water users and designated under the Bathing Water Regulations 2013 which outlines waters suitable for bathing other than swimming pools. The water quality regulators are responsible for monitoring designated bathing waters. However, these designated spots are monitored only throughout the bathing season, and primarily focus on coastal locations.

Dividend:

A dividend is a distribution of profits to company shareholders. When a corporation earns a profit or surplus, it is able to pay a portion of the profit as a dividend to shareholders. Privatised water companies pay out dividends to their parent companies and shareholders.

In 2022 they paid out £1.4bn to shareholders, all whilst dumping raw sewage into our rivers and seas for 1.75 million hours - or 825 times a day on average.

Dry Spill:

The Urban Waste Water Treatment Regulations only permit sewage overflows to operate in 'unusually heavy rainfall'. However, the government has admitted sewage overflows "are being used significantly beyond their original purpose" with these overflows being used even when there has not been rainfall.

In the 2022 Water Quality Report we investigated 'dry spills' for the first time, defining it as a sewage discharge that occurs when there is no rainfall in the last 2 days.

There is no official definition for a dry spill but it's largely recognised as a sewage discharge in dry conditions – something water companies shouldn't be doing. With water companies allowed to self-report and with little clarity on what is classed an 'extreme rainfall event' it's unclear just how many 'dry spills' are happening and how much sewage is potentially being illegally discharged.

E. coli and Enterococci:

E. coli and Enterococci are both characteristically found in water that has been contaminated with sewage. Escherichia coli (E. coli) is a species of bacteria, and Enterococci are a genus (group of species) which are both naturally found in the intestinal tracts of warm-blooded animals and, therefore, faeces. Many strains of E. coli and Enterococci are harmless, and cause no problem in our intestines, however some strains can be harmful to humans when ingested and spread to other parts of

the body, causing stomach cramps, diarrhoea and vomiting. E. coli and Enterococci are both easily sampled from water, and so are easy to detect. This makes them very useful markers for the presence of sewage in waters.

Event Duration Monitor Data (EDM):

Regulators in England, Scotland and Wales require water companies to submit annual data about their sewage overflows. These annual event duration monitor datasets are also referred to as EDM data. This data is collated information from the water companies which shows activity from their overflows over the previous year. Northern Ireland is not required to produce the same data and falls far behind the rest of the UK for data monitoring. In England and Wales, water companies are also required to submit EDM data for the bathing season for all sewage overflows which impact bathing waters.

End Sewage Pollution Manifesto:

Surfers Against Sewage have teamed up with other environmental charities, sports governing bodies and community groups to create the End Sewage Pollution Manifesto. Our manifesto sets out the progressive policies that we want all parties to include in their election promises ahead of the next general election. See here for our End Sewage Pollution Manifesto:

<https://www.sas.org.uk/water-quality/our-water-quality-campaigns/the-end-sewage-pollution-manifesto/>

Environment Performance Assessment (EPA) rating:

The Environment Agency introduced the Environmental Performance Assessment (EPA) in 2011 as a tool for comparing performance between water companies across the years.

These are annual classifications which are given out to each English water company.

Environmental regulators:**Environment Agency (EA) – England**

The EA is sponsored by the Government's Department for Environment, Food and Rural Affairs (Defra). Its main role is to protect and improve the environment through regulation and protection in England.

Natural Resources Wales (NRW) – Wales

NRW advise the Welsh Government and work as regulators for the environment in Wales.

Scottish Environment Protection Agency (SEPA) – Scotland

SEPA is the Scottish environmental regulator and its main role is to protect and improve Scotland's environment.

Northern Ireland Environment Agency – Northern Ireland.

NIPA is an executive agency which sits within the Department of Agriculture, Environment and Rural Affairs (DEARA). Its main role is to protect and improve the environment in Northern Ireland.

APPENDIX 1

GLOSSARY (CONTINUED)

Landscape scale restoration projects:

Landscape-scale conservation is a holistic approach to landscape management, aiming to incorporate local communities, the economy, conservation and restoration.

Manifesto:

A manifesto is a public declaration of principles, intentions, or views and can come in many different forms. A manifesto can be used as a campaigning tool to call for change or by politicians to set out what you will do if people vote for them.

Ofwat:

Ofwat is the water company financial regulator in charge of regulating privatised water companies (those in England and Wales).

Permit:

All wastewater treatment works operate under an Environmental Permit (permit) issued by the Environment Agency. Permits specify the conditions the site must meet, and the Environment Agency is responsible for checking and enforcing compliance with these permits.

Pollution Risk Forecast (PRFs):

Pollution Risk Forecasts (PRFs) are issued by the environmental regulators throughout the bathing season. Pollution Risk Forecasts use rainfall or other factors such

as tidal information to assess the risk of a temporary reduction in bathing water quality. An analysis of past data showing variable quality and conditions such as heavy rain, strong winds or high tides allows the regulators to make active forecasts of water quality risk each day. When these factors lead to the risk exceeding a pre-determined threshold, environmental regulators issue a pollution risk warning.

Protecting Wild Waters:

Protecting Wild Waters is a toolkit created by Surfers Against Sewage, providing communities with support to apply for bathing water designation. From bolstering campaigns in the community to advising on how to contact the local MP for support, this toolkit has step by step guidance for those wanting to get their local swim, dip, paddle spot designated to ensure water quality testing takes place there throughout the bathing season.

You can read more about the Protecting Wild Waters toolkit here: protectingwildwaters.org.uk

Remunerations:

Remunerations can be defined as money received for the performance of work, including pay and additional benefits. For example, when we talk about water company bosses' total remunerations we are talking about their total pay (which includes their annual bonus within this).

Safer Seas and Rivers Service (SSRS):

The Safer Seas and Rivers Service (SSRS) provides users real-time water quality and beach safety information. The SSRS app alerts users to water quality issues linked to sewer overflow discharges, heavy rainfall and other pollution incidents. Water companies in England and Wales voluntarily provide the SSRS with real-time alerts from EDMs located on their Combined Sewer Overflow (CSO) assets, which then automatically sends alerts to the Safer Seas and Rivers Service. Additionally, during the bathing season, Pollution Risk Forecasts (PRFs) are issued by all the environmental regulators.

SAS Reps:

Surfers Against Sewage reps are our network of volunteers who help deliver change at both a regional and national level. For more information contact reps@sas.org.uk

Sewage Discharge:

Water companies across the UK regularly dump raw sewage into our rivers and into our sea via sewage overflows. This is also known as a sewage discharge and this is what triggers an alert on our Safer Seas and Rivers Service app.

Sewage Overflow:

Across much of the UK, our sewerage network is set up as a 'combined system'. This means that our sewage water and surface water flow into the same pipe system before travelling to a treatment plant. However, when the sewerage system becomes overloaded – because of heavy rainfall for example – water companies are allowed to use sewage overflows (including Combined Sewer Overflows (CSOs) and pumping stations) to discharge untreated human sewage and wastewater into the environment.

Storm Overflows Discharge Reduction Plan:

The storm overflows discharge reduction plan, set out by the UK Government, sets out the targets for England's water companies to meet requirements as to how they will get there. Storm overflows need to be improved to meet all targets by the following dates:

- By 2035: all storm overflows discharging near designated bathing waters, and 75% of storm overflows discharging into or near 'high priority sites'.
- By 2050: all remaining storm overflows.

Although it's a step in the right direction to have these targets in place, the target deadlines are far away, allowing water companies to continue to pollute waters for many years to come whilst the steps outlined are not expected to solve the problem.

Sustainable drainage systems (SuDS):

Sustainable drainage systems (SuDS) are features built into the landscape to slow down and divert surface water, designed to mimic natural drainage and reduce the impact of surface water flooding. They are a natural approach to managing drainage.

Urban Waste Water Treatment Regulations:

Urban Waste Water Treatment Regulations is a set of UK regulations which aim to protect the environment from the adverse effects of untreated urban wastewater. Urban wastewater includes water from domestic and industrial premises and urban pollution from surface water runoff. Without treatment, urban wastewater has significant adverse impacts on our water environment. This is because it:

- Contains nutrients which, when in excess, can speed up the growth of certain plants, disrupting natural processes and harming wildlife
- Can be contaminated with harmful chemicals and bacteria which present risks to human health and the wider ecology of our water bodies

Water Quality Report:

The Water Quality Report is an annual report published by Surfers Against Sewage which investigates and summarises water quality pollution across the UK.

Water UK:

Water UK is the trade association for the water industry across England, Scotland, Wales and Northern Ireland. They also represent the UK water industry in discussions with government, NGOs, regulators and in international forums.

APPENDIX 2

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