

July 2022

# River water quality

Customer research

ofwat

## Foreword

Ofwat's strategy, [Time to act, together](#), commits Ofwat to listen to customers more directly to understand people's needs and priorities and to improve the body of evidence on people's views and experiences. We use insights to better test our policies and guide where and how we hold companies to account.

This report looks at people's views on river water quality. Recent data brought greater focus to this issue by showing the extent to which wastewater companies have been using storm overflows to release sewage into rivers and seas.

Earlier this year, Ofwat wrote to wastewater companies about their responsibility to reduce the harm to river water quality from their activities and to publish their plans for this – for their customers and the wider public to see. As a backdrop to this, public concerns were being raised about pollution in rivers, with calls for change.

This research was an opportunity to hear from customers across England and Wales in greater depth. The findings show people's expectations on river water quality, while also highlighting varied levels of awareness about the roles and responsibilities of organisations responsible for monitoring and delivering this.


Since the research was conducted, several companies have made public commitments to achieve reductions in the use of storm overflows, increase monitoring and improve transparency over the next few years.

It is vital that companies fulfil their legal obligations with respect to the treatment of sewage and deliver on the commitments they have made to their customers. They should engage with their customers on the progress they make and the challenges they face, to ensure there is full transparency and accountability.

We were pleased to see commitments from some companies to engage more transparently and proactively on their performance with their customers and key stakeholders. We will monitor company actions on this front.

### The headline findings include:

- Three in ten respondents (29%) ranked water pollution of rivers and seas among the top three things having a negative impact on the environment.
- There is a difference between what people think it is safe to do in a river and what they think it should be safe to do:
  - six in ten respondents (60%) in England think it should be safe to go swimming in a river in England – but only 16% think it is currently;
  - 65% of respondents in Wales think it should be safe to swim in a river in Wales, with 24% believing it is currently safe to do so.
- Three-quarters of respondents (75%) are aware that sewage is sometimes released into rivers and seas – but very few report a good understanding of storm overflows.
- Many respondents report concern about the release of sewage into rivers and seas, with the most common emotions relating to this being anger and upset.



**Dr Claire Forbes, Senior Director  
of Corporate Communications, Ofwat**

# Introduction

This report looks at people's views on river water quality and their understanding of who is responsible for keeping rivers clean.

The findings are taken from an online survey by Savanta conducted 23 March - 1 April. This includes:

- A survey of 2,329 people in England and Wales. The sample includes 1,898 respondents in England and 431 in Wales. The data was weighted by gender, age and region to be nationally representative.
- A booster sample of 302 ethnic minority respondents in England and Wales.

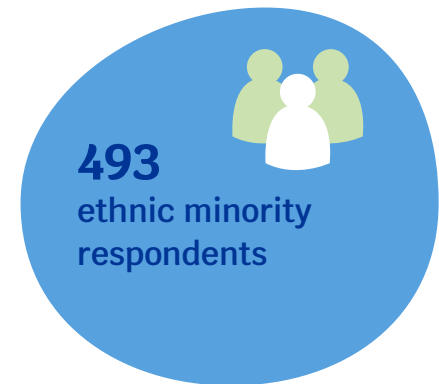
Throughout this report, the England and Wales data sample is used to report findings. However, data that looks at differences by ethnicity includes the ethnic minority booster sample and the ethnic minority respondents from the main survey, making a total base of 493 respondents.

Trends seen in the ethnic minority booster sample may be driven by age, as the sample has a higher proportion of younger people.

## The report sets out data on:

- People, the environment and water.
- River water quality - cost, use, awareness.
- Storm overflows - awareness and views.
- Organisations - understanding of roles and responsibilities.

Full data tables can also be downloaded from [Ofwat's website](#). This includes the combined data tables for England and Wales (the data used in this report), data tables for participants in Wales and data tables for ethnic minority respondents.



# People, the environment and water

Respondents were asked to rank, from a list of options, what they think has the most negative impact on the environment. Water pollution (e.g. sewage, microplastics, farm waste) of rivers and seas was chosen by 8% as having the most negative impact. This was lower than those selecting general waste/litter/fly-tipping (29%), air pollution (14%), and single-use plastics (14%).

Almost three in ten (29%) ranked water pollution as one of the top things having a negative impact on the environment (giving it a 1-3 ranking). There were some national/regional differences. Respondents in the South West (36%), Wales (36%) and South East (34%) were more likely to rank water pollution as having a negative impact on the environment.

Similarly, respondents were asked to share, from a list of options, what most concerned or worried them about their local area. Water pollution was the number one concern for 11% of participants. This compares to 27% for general waste/litter/fly-tipping, 14% for air pollution and 11% for single-use plastics.

One-third of respondents (33%) chose water pollution as one of their top concerns (giving it a 1-3 ranking). Higher numbers of respondents in the South West (43%) and South East (39%) ranked water pollution as a top concern (giving it a 1-3 ranking).

## What people see as having the most negative impact on the environment, thinking about their local area (giving a 1-3 ranking)



## What people are most concerned or worried about, thinking about their local area (giving a 1-3 ranking)



\* For example sewage, microplastics, farm waste    \*\* For example fossil fuels

## River water quality – cost

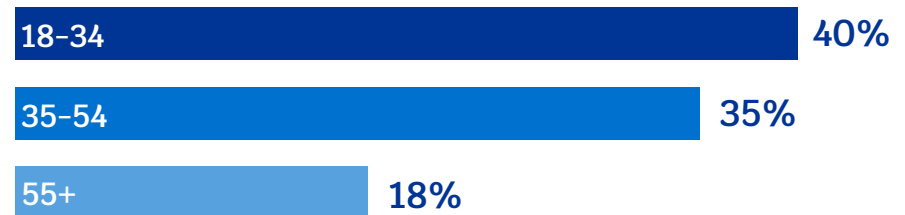
Respondents were presented with a choice between improving the quality of rivers or keeping bills low. Almost six in ten (59%) wanted their water company to prioritise improving the quality and cleanliness of rivers in England and Wales, even if this were to increase the price of their water bills. Just under three in ten (29%) wanted companies to keep water bills low, even if this were to have a negative impact on the quality and cleanliness of rivers in England and Wales.

Respondents who were behind on the payment of any bills were significantly more likely to choose keeping water bills low (40%) than those who were not behind on bills (24%). It is likely that the proportion of people behind on household bills will be higher now than at the point this research was conducted, in March 2022 - because of the subsequent increases in the cost of living. Further, our [cost of living research](#), also conducted in March 2022, shows that 53% of water bill payers predicted they would struggle to pay a utility bill over the coming year.

There were some further significant differences between respondents:

- Younger people were more likely than older people to want companies to keep water bills low – 40% of 18-34s, compared to 18% of those aged 55 or over.
- People with young children in the home were more likely than those who don't have children in the home to want companies to keep water bills low (39% of those with children aged 0-11, compared to 23% of those who do not have children in the home).
- Ethnic minority respondents were more likely to prioritise keeping water bills low – 37%, rising to 39% of Black respondents. This compares to 28% of White respondents.

### Younger people were more likely than older people to want companies to keep water bills low



However, there were also some consistencies between groups. 59% of socio-economic group ABC1 wanted companies to improve the quality and cleanliness of rivers, even if it meant an increase in the price of their water bill. This compares to 58% of socio-economic group C2DE.

This question was presented to respondents as an either / or question. In reality, it is possible for the quality and cleanliness of rivers to improve without an increase in the cost of water bills: water companies have already been allowed funding for environmental improvements in this area. The quality and cleanliness of rivers could also be improved by others, such as those in agriculture, taking action to reduce pollution.

It should also be noted that the question did not provide any indication of the extent to which bills might rise. Therefore, responses should be treated with caution.

# River water quality – use

There is a difference between what people think they could currently do safely in a river in England or Wales and what they should be able to do.

Six in ten respondents (60%) in England thought it should be safe to go swimming in a river. But only 16% thought it was currently safe to do this. Similarly, more than half (52%) of respondents thought it should be safe for children to play in a river, only 12% thought this was currently the case. Views on what should be safe to do in a river in England were consistent between those who live near a river or other body of water and those who do not.

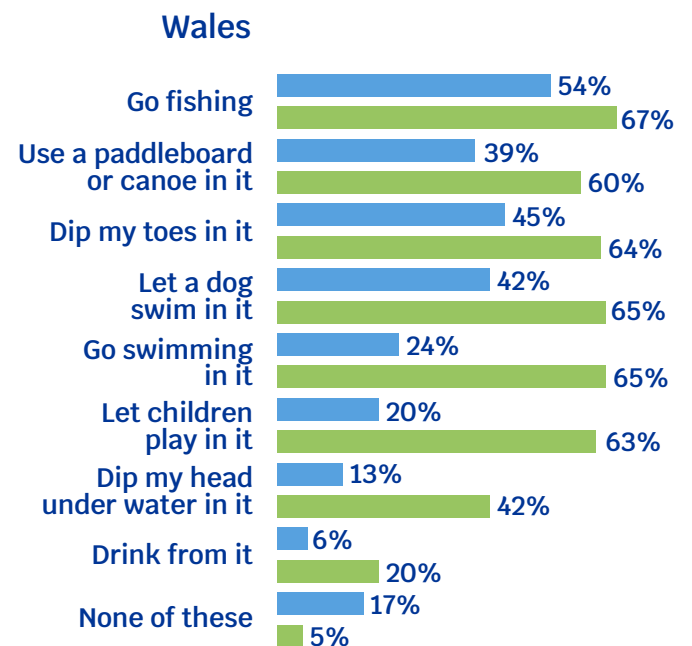
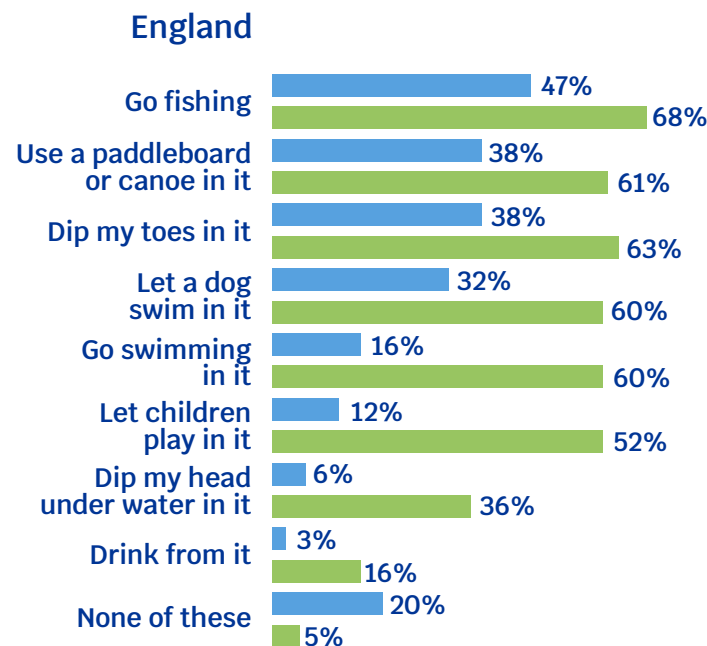
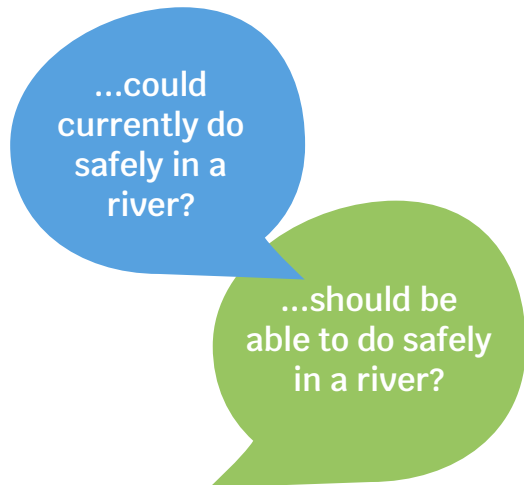
There were, however, some differences between those who reported being willing to pay more to improve the quality and cleanliness of rivers and those who preferred to keep water bills low. For example, the former group were more likely to state that rivers should be safe to swim in (67%) and to let children play

in (60%). This compares to 46% and 41% respectively for those who prioritised keeping bills low.

For respondents in Wales, there were also significant differences between what people believed it was currently safe to do in a river in Wales and what it should be safe to do. Almost two-thirds felt it should be safe for people to go swimming in rivers (65%) and for children to play in them (63%) – but only 24% and 20% respectively believed it is currently safe to do so.

There were also differences among respondents in Wales between those who reported being willing to pay more to improve the quality and cleanliness of rivers and those who preferred to keep water bills low. The former group were more likely to state that rivers should be safe to swim in (72%), compared to 58% for those who prioritised keeping bills low.

## We asked people what they think they...

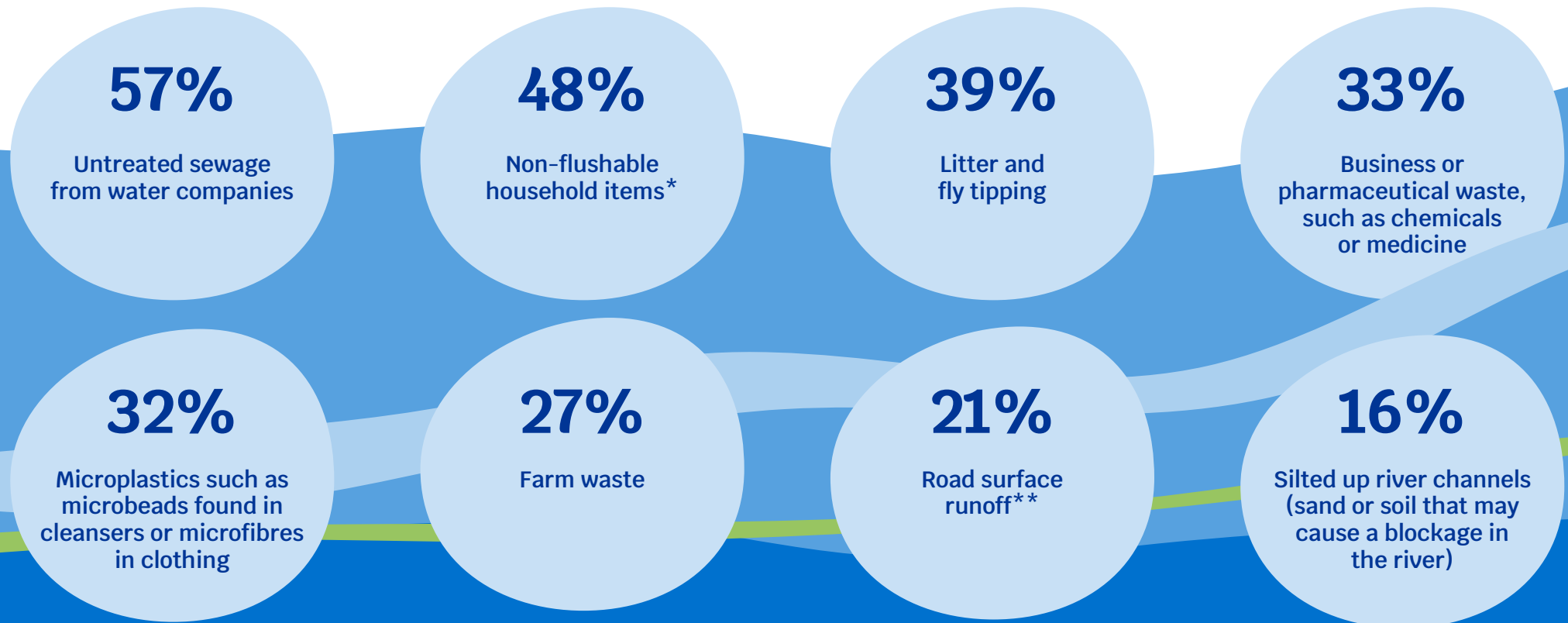


## River water quality – awareness

Respondents were asked to rank, from a range of options, what has the most negative impact on the water quality of rivers in England and Wales. More than a quarter (27%) ranked 'untreated sewage from water companies' top of the list of things that negatively impact water quality of rivers. 57% put this in their top three ranking.

There were some differences by age, with 47% of 18-34s ranking this in their top three, compared to 63% of those aged 55+. There were also some regional differences, with respondents in the South West (62%) and South East (62%) being the most likely to rank untreated sewage from water companies in their top three. The [Appendix](#) sets out details on the key causes of pollution in rivers.

### The most negative impact on water quality of rivers in England and Wales (giving a 1-3 ranking)



\* For example wet wipes, sanitary products, nappies, oils and grease.

\*\* Rainwater that washes off a road includes the pollutants found on the road, for example exhaust fumes, rubber particles from tyres, etc.

## Storm overflows – awareness

Three-quarters of respondents (75%) reported they were aware that water companies sometimes release sewage into rivers and seas. A quarter (25%) of respondents were not aware of this. Older respondents were more likely to report awareness of this (83% of those aged 55+, 72% of 35–54s, and 64% of 18–34s).

Those respondents who believed water companies should prioritise keeping water bills low were less likely to be aware of the release of sewage into rivers and seas (70%, compared to 79% of those who prioritised improving the quality and cleanliness of rivers).

More than six in ten respondents (62%) reported they had heard of storm overflows (sometimes called 'combined sewer overflows'). 38% reported they had not heard of storm overflows.

The use of storm overflows is permitted in some circumstances. More information on how they are used is set out in the [Appendix](#).

Many of those who reported having heard of storm overflows reported that they know little about them

### Knowledge of storm overflows among those who had heard of the term

Base: All respondents (2,329). Respondents who had heard of storm overflows (1,393).



### Respondents who had heard of storm overflows were also asked for their views on a series of statements...

**58%** believed if a sewerage system becomes overwhelmed, there is a danger of water/sewage backing up into people's homes

**64%** believed that certain behaviours can have an impact on the sewerage system such as flushing wet wipes down the loo

**29%** believed water companies use storm overflows to release sewage into rivers or seas only when it has been raining

**31%** believed water companies sometimes use storm overflows to release sewage into rivers and seas when it hasn't been raining



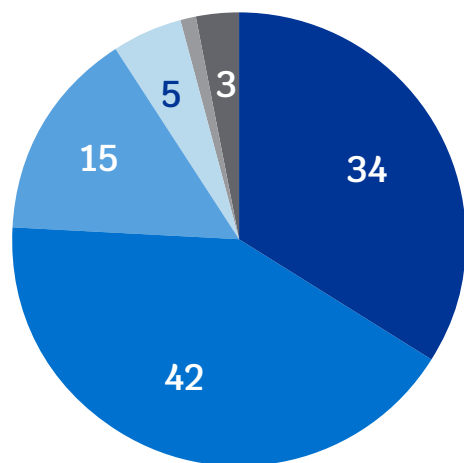
# Views on storm overflows

Storm overflows act as relief valves for the sewerage system. This means water companies sometimes use storm overflows to release sewage and extra rainwater into rivers or seas. Respondents were provided with this information and asked how concerned, if at all, they were about the use of storm overflows in three different scenarios.

A clear majority of respondents reported concern for each of the scenarios. The percentage of respondents reporting they were 'very concerned' about the scenarios increased from 34% for scenario one to 55% for scenario three.

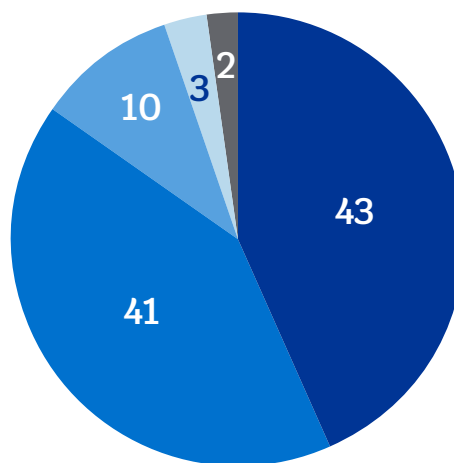
## Scenario one

Storm overflows being used to release sewage into rivers and seas as a last resort because of unusually heavy rainfall



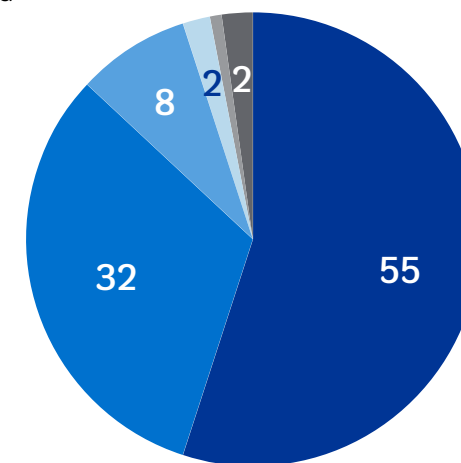
## Scenario two

Storm overflows being used to release sewage into rivers and seas fairly regularly when it rains



## Scenario three

Storm overflows being used to release sewage into rivers and seas regularly, including when it **hasn't** rained



■ Very concerned   
 ■ Fairly concerned   
 ■ Neither concerned nor unconcerned   
 ■ Not very concerned   
 ■ Not at all concerned   
 ■ Don't know

Level of concern correlates with age. 82% of those aged 55+ reported being very or fairly concerned, compared to 67% of 18-34s and 76% of 35-54s.

Those aged 55+ were more than twice as likely as 18-34s to report being 'very concerned' - 57% and 27% respectively. 48% of respondents in socio-economic group C2DE reported being 'very concerned' compared to 39% of ABC1s.

70% of those aged 55+ reported being 'very concerned', compared to 38% of 18-34s. Regionally, levels of concern were highest in the South East (91%), South West (89%) and West Midlands (89%).

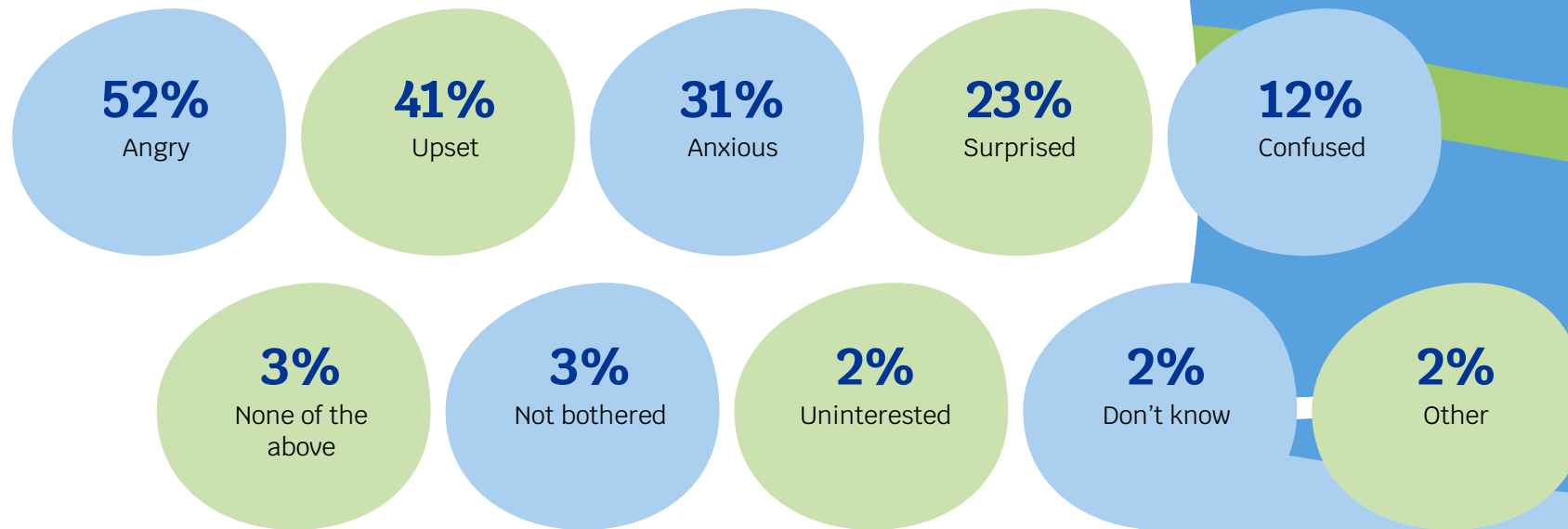
## Responses to storm overflows

Respondents were asked what best describes their feelings towards the release of sewage into rivers or seas. More than half (52%) reported they felt 'angry' about this, with more than four in ten (41%) reporting they felt 'upset'. Only a handful of respondents reported they felt 'not bothered' (3%) or 'uninterested' (2%).

Older age groups were more likely to report feeling 'angry' about the release of sewage into rivers or seas. 62% of those aged 55+ reported feeling angry, compared to 38% of 18-34s.

Six in ten respondents (60%) in the South East reported feeling angry about this, compared, for example, to 45% of respondents in London.

Very few people across all socio-demographics and nations/regions reported feeling 'not bothered' or 'uninterested' about the release of sewage into rivers or seas.



# Organisations

Three in ten (31%) respondents ranked water companies as having the biggest responsibility for keeping rivers in England and Wales clean. This compares to 23% for the Environment Agency and 16% for government. Two-thirds of respondents ranked water companies in the top three, compared to 59% for the Environment Agency and 41% for government.

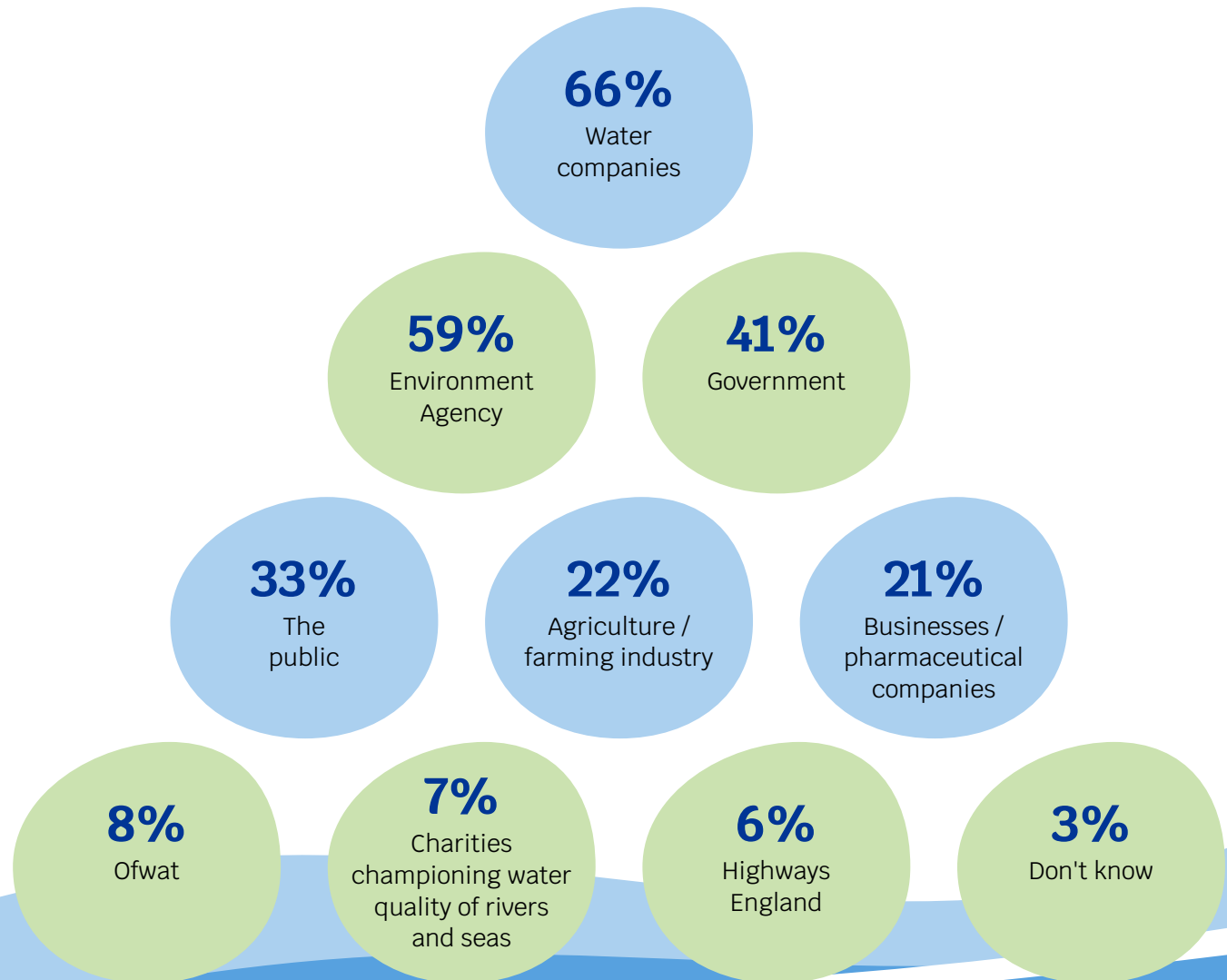
Two per cent of respondents ranked Ofwat as having the biggest responsibility for keeping rivers clean, with 8% choosing Ofwat in the top three.

Not all respondents ranked all options. In total, 73% gave a ranking for water companies, 68% for the Environment Agency, and 54% for government. Only 27% gave a ranking for Ofwat.

Ethnic minority respondents were more likely to rank government as having the biggest responsibility for keeping rivers clean – 27%, compared to 15% of White respondents.

Fewer than one-fifth (18%) of ethnic minority respondents scored water companies as having the biggest responsibility for this, compared to 32% of White respondents.

## Perception of who has the biggest responsibility for keeping England and Wales' rivers clean, in other words preventing pollutants entering waterways (giving a 1-3 ranking)



## Organisations

There was varied awareness of the responsibilities of organisations in relation to rivers and seas.

Perception of what responsibilities, if any, the following organisations have when it comes to regulating rivers and seas in the UK

	Ofwat	Environment Agency	Natural Resources Wales*	Drinking Water Inspectorate	Defra
Regulate the use of storm overflows	15%	34%	51%	9%	21%
Monitor drinking water quality	21%	34%	30%	58%	29%
Monitor river water quality	20%	53%	27%	24%	34%
Reduce the impacts of climate change	10%	37%	42%	7%	20%
Reduce the impacts of pollution	12%	49%	30%	12%	31%
Regulate water companies	43%	33%	31%	24%	22%
None of the above	2%	1%	1%	1%	5%
Don't know	17%	7%	13%	7%	16%
Not heard of this organisation	17%	1%	4%	14%	9%

Awareness of Ofwat regulating water companies was significantly different by age. Only a fifth (21%) of 18–34s were aware of Ofwat's role, compared to 37% of 35–54s and 59% of those aged 55+. There was also higher awareness of Ofwat's role in the South West (51%) and South East (50%) than North West (34%) and London (37%).

Base: All respondents (2,329). \* Respondents in Wales (431)

The most common mentions for each organisation were:



### Ofwat

43% reported Ofwat regulate water companies.



### Environment Agency

53% identified a role in monitoring river water quality.



### Natural Resources Wales

51% of respondents in Wales believed they regulate the use of storm overflows.



### Drinking Water Inspectorate

58% identified their role as monitoring drinking water quality.



### Defra (Department for Environment, Food and Rural Affairs)

34% identified a role in monitoring river water quality.

## Conclusions

This report sets out people's views on river water quality and the release of sewage into rivers and seas.

Action is currently being taken by the UK Government, the Welsh Government, Ofwat, the Environment Agency, Natural Resources Wales and wastewater companies to bring about change.

Ofwat has been engaging with wastewater companies in the lead up to their public consultations on draft drainage and wastewater management plans, which will run until September 2022. Some companies have [committed](#) to achieve an average of 20 storm overflow spills per year by 2025 – meaning, for those companies, a 39% reduction in spills when compared to the sector average in 2020 – and to ensure company operations are not responsible for water bodies not achieving Good Ecological Status by 2030.

These commitments are a clear indication of what the sector can achieve in the short term to tackle harm caused by storm overflows. Storm overflows that are regularly spilling due to unresolved operational problems, including asset configuration, pump failures and power failures, are within companies' gift to resolve now and we expect all companies to address these issues as a priority in line with their legal duties to effectually deal with the contents of sewers.

### We are pushing wastewater companies to improve river water quality by:

- Investigating how water and wastewater companies manage their sewage treatment works. We have recently opened enforcement cases against six companies and have an ongoing investigation into all wastewater companies in England and Wales.
- Making cost allowances for investment for environmental improvements, including £4.8 billion of investment for wastewater improvements across England and Wales between 2020–25.
- Monitoring water companies' environmental performance, including companies' performance against commitments made as part of our most recent price review process (PR19) that incentivise improved environmental performance.
- Pushing companies to deliver more for the environment through our [next price review process](#) for the 2025–2030 period and beyond. This includes proposals to set a range of performance commitments on environmental issues including river water quality and storm overflows. These proposed commitments would also include out- and under- performance payments to incentive companies to meet those commitments and go further where beneficial.

### We are also working with others to improve river health and the collection of data to monitor this, including:

- Working with companies, Water UK and other regulators to support and challenge the aims of the first, and subsequent, iterations of drainage and wastewater management plans.
- Working alongside Defra, the Environment Agency and wastewater companies in England as part of the Storm Overflows Taskforce to work towards the shared goal of eliminating harm from storm overflows.
- Working alongside the Welsh Government, Natural Resources Wales and companies in Wales as part of Tasglu Ansawdd Afonydd Gwell/ the Better River Water Quality Taskforce to improve river water quality in Wales.
- Engaging with environment groups to share knowledge and collaborate on solutions on how to improve river health.

It is also expected that the UK Government will publish its storm overflow reduction plan in autumn 2022.

# Appendix

## River water quality

The [Environment Agency reports](#) that the main sources of pollution in rivers are:

- agriculture and rural land management (40%);
- the water industry (35%); and
- urban and transport (18%).

## Storm overflows

Storm overflows are designed to act as relief valves when the sewerage system is at risk of being overwhelmed, for example during heavy downpours when a lot of rainwater runs into drains and the sewerage system in a short space of time.

The Environment Agency and Natural Resource Wales regulate the operation of storm overflows, including the quality of discharges, through their environmental permitting regimes. They also inform the level of improvement and capacity at each price review through the Water Industry National Environment Programme (WINEP) in England and the National Environment Programme (NEP) in Wales.

As part of PR19, Ofwat required all companies to reduce pollution incidents as well as allowing additional funding of around £1bn per year to improve rivers and coastal waters including reducing discharge from storm overflows.

The PR19 final determinations included approximately £4.8bn of spend for WINEP and NEP in England and Wales, of which approximately £1.2bn was targeted directly at storm overflows. We applied an efficiency challenge only to the WINEP and NEP, we did not challenge companies on need. We are [proposing](#) to require all companies to reduce storm overflows at PR24.

Ofwat has a key role in Defra's Storm Overflows Taskforce, which has the long-term goal of eliminating harm from storm overflows. That work has resulted in commitments that water companies will:

- make real-time data on sewage discharges available at bathing sites all year round;
- accelerate work to install event duration monitors to create a complete picture of their activity by 2023; and
- publish annual monitoring data on their websites about their use of storm overflows, so progress in reducing their use can be tracked. The Environment Agency will collate and publish a report on this.

In addition, work is underway to explore different policy options and costs to tackle the harm caused by storm overflow spills.

At the end of 2021, a new piece of legislation was introduced, called the Environment Act, which puts more duties and responsibilities on companies, regulators and the government to go further on reducing the harm from storm overflows. The Act will also require companies in England to publicly report more information about their discharges from storm overflows in a way that is easy for members of the public to understand.

For companies to gain trust and meet the expectations of their customers around storm overflows, there will need to be investment, a commitment to innovate, and a transparent approach.

## Investigation into the operation of wastewater treatment works

New monitoring equipment at wastewater treatment works in England prompted several water companies to say that they could be releasing sewage from their wastewater treatment works when they do not have permission to do so.

Wastewater treatment works have environmental permits that set out conditions that include how the company must treat wastewater before any discharges can be made from the treatment works into the environment. These permits are issued by the Environment Agency.

Ofwat is investigating if and how often water companies are breaking the conditions of their environmental permits at their wastewater treatment works and whether this may indicate a breach of any obligation Ofwat is responsible for enforcing, such as companies' duty to effectually deal with sewage. This investigation is a priority for Ofwat and we are working as quickly as we can to progress it. We have identified a priority set of companies we have opened enforcement cases into and are now gathering and assessing further information from them to better understand our concerns. We will keep our enforcement cases under review, and the companies which are our focus may change as we gather new information.

You can find out more information about our [investigation](#) on our webpage.

**Ofwat (The Water Services Regulation Authority)  
is a non-ministerial government department.  
We regulate the water sector in England and Wales.**

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