

# Storms Overflow Report 2022



**Better rivers will help bring  
about a better North West.**

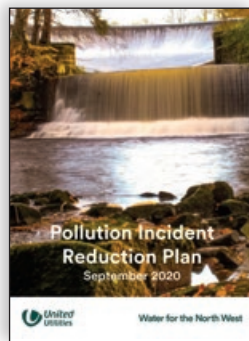
## Contents

Message from our CEO designate	02
The momentum we took into 2022	03
Rivers and the challenges in front of us	04
Fast facts about the North-West	05
Better Rivers: Better North West – our plan	06
Better Rivers – reducing impact to river health by tackling overflows that spill frequently	
– Defining storm overflow categories	08
– Planning for high spilling overflows	09
<b>Better Rivers: Better North West – our 4-point plan</b>	
<b>PLEDGE 1</b> Ensuring our operations progressively reduce impact to river health	10
<b>PLEDGE 2</b> Being open and transparent about our performance and our plans	12
<b>PLEDGE 3</b> Making rivers beautiful and supporting others to improve and care for them	14
<b>PLEDGE 4</b> Creating more opportunities for everyone to enjoy rivers and waterways	16

## Welcome to our first Storms Overflow Report.

The North West is home to some of the most beautiful natural landscapes. We take our role in protecting them very seriously so they can be enjoyed by all. We have invested significantly to reduce the impact that wastewater has on the natural environment and our long-term ambition is to eliminate pollution incidents.

In this report we explain some of the challenges and opportunities connected to storm overflows and reducing how frequently they operate. We explain what we have done so far and introduce our four-point plan called Better Rivers: Better North West which sets out the actions we will take over the next three years. The report provides describes what causes overflows to operate more frequently and what we are doing to tackle this. In particular, we highlight the importance of working together to improve the quality of water in rivers across the North West.



### Useful reference points/documents:

In our Pollution Incident Reduction Plan, we set out our ambition to deliver a step change in pollution performance for customers and the environment of the North West to 2025 and beyond. Building on a strong track record, we will target stretching service levels for customers and environment, embed a culture of zero tolerance to pollution, create long-term plans, build on our systems thinking approach and implement a responsible reporting structure.



Read about our [Pollution Incident Reduction Plan](https://www.unitedutilities.com/globalassets/documents/pdf/pollution-incident-reduction-plan_september-2020.pdf) at [https://www.unitedutilities.com/globalassets/documents/pdf/pollution-incident-reduction-plan\\_september-2020.pdf](https://www.unitedutilities.com/globalassets/documents/pdf/pollution-incident-reduction-plan_september-2020.pdf)



To find out more, including our [Storm Overflows and Spills Performance Data](https://www.unitedutilities.com/corporate/responsibility/environment/reducing-pollution/), see <https://www.unitedutilities.com/corporate/responsibility/environment/reducing-pollution/>

## What are storm overflows:

Storm overflows are an important part of the sewerage network and include combined sewer overflows (CSO) and storm tank discharges. They act as pressure relief valves on the network so that at times of high rainfall, homes and businesses are protected from the risk of flooding. Learn more about storm overflows, how the system was designed and how it works.



[www.unitedutilities.com/corporate/responsibility/environment/reducing-pollution/storm-overflows/](https://www.unitedutilities.com/corporate/responsibility/environment/reducing-pollution/storm-overflows/)

## Message from our CEO designate

Louise Beardmore  
CEO designate



My commitment is that we will build a plan that delivers for the North West and what's more we will provide full transparency and be accountable for our performance."

I am delighted to be writing this introduction to our first Storms Overflow Report.

At times of high rainfall, society is now calling for water companies to reduce the frequency that storm overflows operate. Overflows exist because many decades ago a drainage design choice was made that excess rainfall should discharge through sewers into watercourses rather than flood homes and businesses. Today, stakeholders tell us they no longer support that design choice and that the outcome they seek is better river water quality – we agree.

But in the same way we can't introduce Electric Vehicle charging overnight, nor can we re-plumb the North West drainage network that was built over the last 150 years in a handful of years. In our region, over half of the sewer network is combined – this means that when it rains, rainwater joins sewage and the sewer fills up quickly. In Liverpool, 84 per cent of the sewers are combined.

We are convinced that the best solution is to better manage rainfall – to achieve this we need to work with stakeholders across the region to help better manage the flow of water to stop it entering the system. By working with developers, highways authorities and businesses, we need to find ways to stop and reuse surface water as population growth increases and rainfall becomes more intense.

We are developing a comprehensive plan to tackle sewer flooding and remove overflows by taking as much surface water as we can from the system by working with others and at the same time re-plumbing the network of pipes and treatment works. Our aim is to do this in a way that achieves maximum impact at a rate that is affordable. My commitment is that we will build a plan that delivers for the North West and what's more we will provide full transparency and be accountable for our performance.

I want United Utilities to be seen as a company that is listening, that is open and responsive and one that is up for solving problems in our region. Given that we serve every county in the North West, we can act as a convener, bringing together the region's stakeholders to explore opportunities to create new partnerships that can tackle the issues impacting river water quality. That is why we held our first Environmental AGM in 2022, convening a group of environmental leaders and champions to challenge our performance and to consider what more we can do together.

We want to be at the heart of our communities and engage on issues that matter most to people and businesses, offering reassurance that when it comes to water and wastewater services, bills, the environment and service we are doing the right things in both the short and long term. That is why, in partnership with the Rivers Trust, we convened the region's first rivers forum. We hope that by bringing together many sectors new ideas will emerge about how we can take collective action to improve the quality of water in North West rivers. Our communities, environment and future generations deserve that.



# The momentum we took into 2022

**28%**

reduction in reported spill numbers in 2021

**25%**

reduction in reported spill duration in 2021

**72%**

reduction in duration for 5 most frequently spilling overflows

**56%**

reduction in pollution incidents since 2011

## ACTION WE'D ALREADY TAKEN PRIOR TO 2022



### Investment underway in 29 projects to significantly reduce spills

- Will deliver 184km of improved rivers
- Will reduce 1,340 spills each year (47% reduction at 29 sites)
- Over 10 million m<sup>3</sup> reduction in the volume of annual spills

### Invested £1m in a new analytics platform

- Bespoke digital platform to support data reporting
- Helped us analyse over 500 million rows of data
- Enables analysis of performance trends leading to earlier and focused interventions

### Formed a taskforce to analyse our data

- Multi-disciplinary team including 12 new recruits
- Analysis revealed common issues such as instrument failure leading to overstated spills
- Focus on eliminating errors from inaccurate data and adopting best practice

### Invested in our Dynamic Network Management system

- A new capability for visualisation, analytics and action
- Enhanced situational awareness, across a common digital infrastructure
- Circa 200 EDMs to be installed, bringing coverage to 100% by 2023



**Jo Harrison**  
Environment, Planning and Innovation Director at United Utilities

As a result of our extensive programme of investment in monitoring equipment, known as event duration monitoring (EDM), we now know more about our 78,000km sewer network and wastewater treatment systems than ever before. This provides us with a much clearer picture of where issues are arising and where intervention is most needed. This data is what has fuelled public concern but creating the dataset was an essential first step in making things better.

We are pleased with progress made in 2021 which has provided a solid foundation to deliver further improvements in 2022.

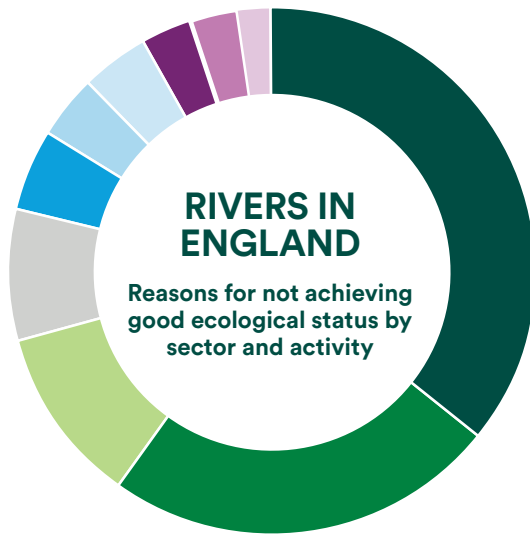
Across the last three years we have reduced total pollution incidents by 33 per cent. Over that same timeframe, there have been 149 serious pollution incidents across UK water companies – United Utilities has been responsible for just 1 (0.7 per cent) of these even though we have 15 per cent of England's total length of sewer network.

As we have gathered and analysed our spill data, extracting insight from over 500 million rows of data, we have been able to better target improvement actions including enhancements to the accuracy of our data. Comparing 2021 with 2020, we achieved a 28 per cent reduction in reported spill numbers and a 25 per cent reduction in reported spill duration. For our five most frequently spilling overflows, there was a 72 per cent reduction in total spilling duration.

Between 2020 and 2025 we are investing £230 million in 29 schemes to improve 184km of rivers. This investment is forecast to reduce spills by 47 per cent from the assets improved in the 29 schemes, with 9,954 fewer hours of spilling.

We know there is much more that we need to do but the steps we are taking are moving us in the right direction. We have now built a solid foundation to deliver the commitments in our Better Rivers: Better North West plan and I look forward to reporting further progress in 2023.

# Rivers and the challenges in front of us



The water sector as a whole represents around 24%. Storm water specifically accounts for 4%

- Agriculture and Rural Management 36%
- Water Industry 24%
- Urban Development and Transport 11%
- No specific Sector (e.g. Non-native species) 8%
- Other\* 5%
- Public (e.g. Misconnected Plumbing) 4%
- Local and Central Government 4%
- Under Investigation 3%
- Industry 3%
- Mining and Quarrying 2%

The Environment Agency Catchment Data Explorer September 2021

\* Other includes: Navigation/Recreation/waste

As recently as the early 1990s, over a fifth of sewage was not being treated properly, killing huge swathes of life in oxygen 'dead zones'. Many rivers became rich in toxic metals, agricultural slurry and industrial chemicals. Particularly from the 1950s, the numbers of invertebrates, fish and mammals in or around rivers started to plummet catastrophically.

The water industry is proud to have played a leading part in the fightback. Over the last 30 years we have invested £30 billion in the environment, increasing the number of bathing waters meeting minimum standards from 28 per cent in the early 1990's to over 97 per cent this year. We have seen habitats and species recover, including those sensitive to water quality, such as recovery in recent decades of England's otter population.

The truth, though, is that this is not enough.

Everyone, from river users and customer groups to environmental Non-Government Organisations (NGOs), need to work together to respond to these challenges. Crucially, with other sectors responsible for three-quarters of the reasons for harm in rivers, this needs to be a combined national endeavour.



Read more at <https://www.water.org.uk/rivers/>

There are three urgent challenges that demand we transform our approach:

1. Climate change will change river flows, increase the concentration of pollutants, and increase the growth of algae. This is an urgent threat to water quality<sup>1</sup>.
2. Only 14 per cent of rivers are rated good and this hasn't changed since 2009 despite significant investment from the water sector. The Government target is for three-quarters of rivers to reach that standard by 2027.
3. The public's expectations for their rivers, and what they wish to do in them, has changed as water quality has improved. The popularity of activities like angling, water sports and open swimming has increased over the last 20 years<sup>2</sup> and was catalysed during the COVID-19 pandemic as more people connected with nature. A majority now identify river health as one of their 'top three' environmental concerns<sup>3</sup>.

Agency Rod License sales

<sup>1</sup> Source: UK Climate Risk Independent Assessment (CCRA3)

<sup>2</sup> Sources: Watersports Participation Survey, Environment

<sup>3</sup> Source: Water UK polling of 2096 respondents, England and Wales, May 2021

## Fast facts about the North-West

Average annual runoff is

# 28%

higher than the average for England and Wales i.e. more water runs into sewers

United Utilities is privileged to serve the people and environment of the North West. Over three million homes and

# 200,000

businesses depend upon us each and every day

# 54%

of public sewers are combined compared to an average of 33 per cent, filling up more quickly in storms (that's 84 per cent in Liverpool)

To 2020, we invested

# £1.2bn

to improve overflow discharges to reduce spill frequency, volume and impact upon the natural environment. This has improved the operation of over 1,200 intermittent overflows

# 25%

more storm overflows in the North West than industry average

Combined sewers respond

# more quickly

to a storm with the capacity filling up more quickly when compared to more separate systems

A quarter

# 25%

of homeowners with outside space have turned some of their garden into a driveway



# Better Rivers: Better North West – our plan

In March this year we set out our public commitments to improve river health across the North West. Our Better Rivers: Better North West plan brings together all of our existing work on overflows into one programme and sets our ambitions for the next three years and beyond. Led by a Programme Director, this plan forms the backbone of what we have done to date, what we are doing, and what we plan to do.

Earlier this year, we announced a further £250 million of new investment to improve environmental outcomes by responding to new and emerging environmental standards and accelerating the requirements of the Environment Act. This includes funding for our Better Rivers programme.

We set out this work as four pledges:



## Collaborative action will deliver results

Half of the commitments we've set out in our Better Rivers plan focus on engaging with stakeholder across the region. There are three main stakeholder groups that, by coming together, can have the biggest impact to improve river health and influence those around them.

Across the North West there are many initiatives already underway implementing actions that will help enhance water quality. But there is more we can do together and our challenge is to find how we can embed the right behaviours and focus on the right sorts of collaborative projects to deliver collective improvements to protect our rivers. We will all benefit from this approach.



## CASE STUDY

# Future Rivers Forum

In partnership with the Rivers Trust, this year we hosted the North West's first Future Rivers Forum bringing together a cross section of people to encourage greater collaboration to improve the health of the region's rivers.

Attendees included local authority representatives, prominent North West businesses, environmental bodies, water sector regulators and local community figures. Hosted by Roger Harrabin, the BBC's former environment correspondent, the day consisted of a mixture of speakers from United Utilities, The Rivers Trust, Natural Course and the Nature North Partnership, as well as networking and interactive sprint workshops to identify new opportunities to work together.

Our Director of Wastewater Treatment Mark Garth talked about the scale of the challenge to improve river health and what the company is already doing. His comments struck a chord with local authorities who went away with an enhanced understanding of the collective problems we face. The Chief Executive of the Rivers Trust, Mark Lloyd, spoke about the need to work together and take meaningful action, with opportunities around new financing models to be explored.

Attendees were given the opportunity to ask Mark Lloyd and Mark Garth questions before breaking off into groups to discuss the scope for more collaboration. The workshop sessions produced a wealth of information and ideas from which a number of work streams will be created to drive action. These will be based around education, funding opportunities, and alignment of communication.

Feedback from attendees was overwhelmingly positive with a real will to "get on with it now and work together". The legacy of the Future Rivers Forum is yet to be fully determined but there was certainly a genuine sentiment from all involved that we can work together to have a meaningful and positive impact on river health in the North West.

Theme	Measure	Which stakeholder group can help?
Supporting others	New partnership to protect watercourse with farmers	● ●
	Create more sustainable drainage systems (SuDS) around our region	● ● ●
	Embed water management in new housing design	● ●
	Ensure drainage systems are not misconnected	● ●
	Champion legislation to ban wet wipes that contain plastic and lobby for a ban on all wet wipes that are not 'Fine to Flush'	● ●
	Do not flush wet wipes and other items down the toilet and stick to the three 'Ps' of pee, poo and paper	●
	Think about using products that contain less phosphates	● ●
	Support citizen science projects	● ● ●
New opportunities	Create new recreational clubs at our reservoirs for all to enjoy	● ●

Source: United Utilities Better Rivers: Better North West plan commitments focused on collaborative action.

### Key

● United Utilities ● Customers, Local Communities and Businesses ● Regulators, Local Authorities and Government

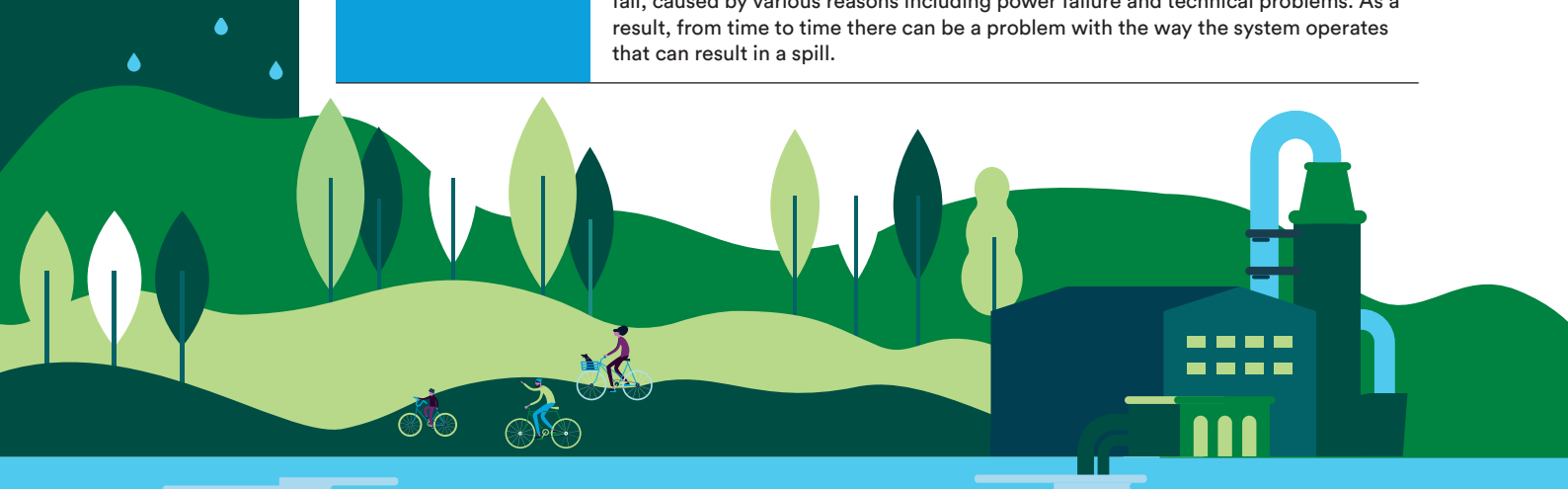


# Better Rivers – reducing impact to river health by tackling overflows that spill frequently

## Defining storm overflow categories

We asked customers what they thought of our Better Rivers plan and they were clear that we should report on the steps we are taking to reduce our impact on river health. One way that we will meet our pledge to deliver a significant reduction in impact caused by storm overflows is to focus on those that operate more frequently. Over the next three pages, we categorise frequent spilling overflows and explain what we are doing to tackle these.

Category	Description
Hydraulic capacity	When the wastewater treatment works and networks were designed and installed, they were built to take away and treat wastewater from industry and households around at that time, including estimates for infiltration such as groundwater, severe weather events and population growth over time. This network of pipes and treatment works is still utilised today so its size hasn't been designed for the pressures put on it by climate change, with more frequent high rainfall events, or where population growth has occurred differently to that projected. This means that at times the amount of water required to be moved and this treated by the sewerage system is so large that it cannot cope and this results in a higher numbers of spills.
Infiltration	Infiltration occurs when water in the ground surrounding our sewerage network seeps into our pipes through tiny cracks and the joints where pipes are connected. This infiltration can be more severe during periods of high rainfall due to the water table rising. Infiltration is hard to stop completely but it can be tackled by replacing pipes completely or "lining" existing pipes.
Asset configuration	There are different types of assets that make up the wastewater network and treatment systems. These include wastewater treatment works, pumping stations, rising mains and storm tanks to name but a few. All need to be configured to work as part of a system so that storage capacity is maximised, spills minimised and wastewater is treated to the highest standard. With such a vast number of complex assets that need to work optimally (we have 575 wastewater treatment works alone), sometimes there are individual overflows which may spill more frequently as part of the best overall balance of spills across the system.
Data collection	Data about spills from storm overflows is captured using data loggers called event duration monitors or EDMs. These log millions of items of data and it is an ongoing maintenance challenge to ensure all 2,000 EDMs are operating. As we install more EDMs and analyse more data, we are discovering some issues that need to be addressed, for example ensuring the each EDM logger is in the best possible location.
Operational performance	Our EDM loggers are located in hostile environments. The wastewater treatment system receives items flushed down the sewers, ranging from the 3 P's (Paper, Poo, and Pee) to items such as fats, oils and grease, sometimes rubble and any other number of items. These put additional significant pressure on our sewerage assets, which means that they need lots of regular maintenance. Sometimes pumps can fail, caused by various reasons including power failure and technical problems. As a result, from time to time there can be a problem with the way the system operates that can result in a spill.



# Better Rivers – reducing impact to river health by tackling overflows that spill frequently

## Planning for high spilling overflows

Between 2020 and 2025 we are investing around £350 million in activities such as repair and maintenance of the sewer network and projects to extend the operational life of our sewers. Over 1 million meters of network maintenance will be undertaken and this will include carrying out sewer surveys so we can better understand how they are operating.

# 545 REPORTED INCIDENTS OF HIGH SPILLING OVERFLOWS

**Asset configuration**  
**What are we doing about it?**  
 To ensure our wastewater assets operate in the most effective way, it is an ongoing task to configure pumping stations and rising mains (pressurised sections of the network often used to move flow uphill) to operate when flows reach a certain level and to pass forward a certain amount of flow. It is a task that our operational and maintenance teams focus on every day, using data from our network of ensure assets run reliably.

Storm tanks provide storage for extra water in the network as a result of storm events. When the storm event subsides the excess water and sewage is released back into the network and flows to the wastewater treatment works. As with pumping stations, it is an ongoing operational and maintenance task to ensure that the tanks operate optimally across the system.

**Infiltration**  
**What are we doing about it?**  
 Sewer lining is a process used for repairing and replacing cracked, leaking and damaged sewers and involves inserting new tubing into existing pipes. The result is a new seal lining the walls of existing pipes and replacing broken piping with the potential to last for decades. This stops water infiltrating the network and taking up hydraulic capacity that could otherwise be used for sewage and storm water.

22 of our high spilling sites were spilling due to water in the pipe being mainly from groundwater infiltrating the network when it shouldn't. We have a programme of sewer lining which means we invest £2m to install lining to combat infiltration within the network. Each year, we carry out around 100 projects to improve sewers through rehabilitation, relaying and re-lining.

**Hydraulic capacity**  
**What are we doing about it?**  
 Our approach to hydraulic overloading depends on the situation and circumstances. Solutions might include capital investment to upgrade a sewer to remove pinch points in the network, more storage, separating surface and rain water from foul water, or increasing capacity at the wastewater treatment works. We undertake hydraulic modelling to fully understand the impact, looking at the whole system to decide what we need to do. Funding for this type of capital investment is normally carried out in consultation with our regulators via the Water Industry National Environment Programme (WINEP). Between 2020 and 2025 we are investing £230m to improve 184km of North West rivers.

**Data collection**  
**What are we doing about it?**  
 To address data collection challenges, we have recruited 7 colleagues dedicated to flow and spill performance, carrying out site surveys to confirm the EDM logger is in the correct place and recording spills correctly. For every EDM, we have carried out a desktop analysis and we've now completed 1216 site investigations across our EDM asset base, that's over 50 per cent. From 2023, spill data will be available to the public in real time and we publish our desktop analysis and categorisation for all our sites on our website. The vast majority of EDMs are in the correct location but where we've identified the need to relocate the EDM, this has been done.

**Operational performance**  
**What are we doing about it?**  
 There are several measures we are taking to ensure that our wastewater assets operate effectively.

We clean and desilt sewers by removing fine sediment from drains or sewers which increases the capacity of the pipe and helps prevent blockages occurring. It is often completed by high pressure jetting to remove the build up of material.

Pumping stations have regular electrical servicing so we can be confident the pumps are operating as per design and that we are capturing performance data. To reduce risks of power failures on pumps we often have dual supplies, on site backup generators and alarms that tell us when things stop working.

Alarms and telemetry help us identify technical problems and when our assets are not performing correctly. These alarms are monitored 24 hours a day, 7 days a week, 365 days a year and when they go off, they are prioritised for either a remote response or an operational colleague will be contacted to attend site and fix the issue.

Any downstream restrictions, for example due to the build-up of fats, oils and grease or wet wipes (generally termed fatbergs), can cause the network to back up in wet weather, increasing the likelihood of a spill. Each year, we carry out around 100 projects to improve sewers through rehabilitation, relaying and re-lining. We have deployed over 20,000 sensors on our network and pumping stations that feed data back into an Artificial Intelligence system to provide alerts about potential blockage before they cause spills. Called Dynamic Network Management, we are starting to see early signs that we are able to identify problems before they impact customers or the environment.



Better Rivers:

# Pledge 1

## Ensuring our operations progressively reduce impact to river health

- Aim to deliver a significant reduction in impact caused by storm overflows and sewage treatment works by 2030
- Aim for no serious pollutions incidents from our assets
- Implement water quality impact monitoring at our overflows no later than 2025
- Deliver £230 million in environmental improvements, supporting at least a one-third sustainable reduction in the number of spills recorded from our storm overflows by 2025 compared to the 2020 baseline
- Reduce category 1–3 pollution incidents by at least 50 per cent by 2025 against a 2012 baseline
- Recruit over 100 Green Apprentices by 2025

# 58%

reduction in pollution incidents since 2012,  
exceeding our target





## CASE STUDY

# Southwaite Wetland

As part of our pioneering Catchment Systems Thinking (CaST) strategy, we have taken a unique approach to enhance performance of our assets and improve water quality by installing a treatment wetland at Southwaite wastewater treatment works in Cumbria.

The wetland forms part of the River Petteril integrated catchment project. This comprises a range of catchment interventions across third party land to reduce diffuse phosphorous pollution and interventions at our treatment works, including the Southwaite wetland, to support water quality improvements.

The treatment wetland is a unique example of how hybrid interventions can be used to deliver a range of benefits. The wetland works by taking excess flows from the treatment works during periods of heavy rain and passing this flow through the wetland for treatment. The wetland operates across three separate cells with the reeds and clay lining of each cell acting to remove phosphorous, before flows are returned to the environment.

Together, the wetland and other interventions reduce phosphorus nutrient load in the River Petteril, downstream of Southwaite treatment works, by around 50 per cent, in line with requirements set for our environmental investment programme.

This approach not only delivers water quality improvements, but the passive, nature-based approach to the treatment process provides a more carbon efficient alternative compared to conventional, hard engineered solutions. Additionally, the wetland also provides wider ecosystem benefits such as enhanced biodiversity, as well flood mitigation by slowing the flow of storm water on site, demonstrating how a hybrid approach can enhance performance of our assets to improve water quality, but also drive efficiencies and wider environment benefits.



Better Rivers:

## Pledge 2

# Being open and transparent about our performance and our plans

- Ensure all storm overflows are monitored by 2023
- Aim to provide near real-time data when an overflow operates and make sure this information is easily accessible from 2023
- Work with stakeholders to provide the information people want and need in an annual report on storm overflows from 2022
- In 2022, publish investigations and plans for all overflows that operate frequently
- Provide greater transparency on the link between environmental performance and remuneration
- In 2022, establish an environmental scrutiny committee of external stakeholders to drive greater oversight
- Hold our first Environmental AGM in 2022 to review performance and progress
- Regular hackathons on pollution data to drive innovative solutions

Over 90% of all our

# 2,200

storm overflows are now monitored



YourVoice, the independent customer and stakeholder challenge group for United Utilities, is scrutinising the delivery of the Better Rivers: Better North West plan.

For more details see:  
<https://yourvoiceicg.co.uk/environment/>





## CASE STUDY

# Innovation in river quality monitoring

Each year, our CEO challenges our graduate trainees to tackle some of the current business challenges we face. This year, one team was asked to look at spills from overflows.

Each year, our CEO challenges our graduate trainees to tackle some of the current business challenges we face. One team was asked to examine ‘how can we improve the way we measure and report the impact of spills, whilst creating a platform to share the data in near real time?’ This challenge was driven by current limitations in our understanding of the impact storm overflow spills have on the receiving water course and new requirements contained in the Environment Act 2021, which requires all water companies to continuously monitor upstream and downstream of all outfalls, in near real-time, by 2030.

The team began by conducting water quality trials using two differing sensors, selected on their respective abilities to address the requirements of the Act and to test innovative technologies. The trial locations were carefully selected considering local stakeholder and media interest in the river and academic research, as the team wanted to maximise the impact of the trials.

Both proved successful – one emulated the requirements of the Act by having near real-time monitoring upstream and downstream of an outfall while the other acted as our first continuous, near real-time water quality monitor, with high levels of accuracy demonstrating the sensors ability to replace laboratory sampling.

The team was keen to visualise the data generated from these trials on a dashboard and to integrate it effectively with other existing data, such as rainfall, to help make better informed decisions to reduce spills. Working closely with the company’s Dynamic Network Management team, a demonstration dashboard was created using data from the trial to display spill impact on water quality.

Along the way, the team focused on external engagement, reaching 190,000 homes (around 5 per cent of our customer base) through letter drops in the local areas with the aim of explaining our contribution to the environment. This helped to enhance understanding of the company’s contribution to the environment. The team’s LinkedIn post generated interest from other water companies keen to learn from the trials.

Now the CEO challenge has ended, this work will be handed over to the Better Rivers: Better North West team who will roll out sensors across various locations in the North West, as well as advancing the initial building blocks laid out by the CEO Challenge team. The aim is to turn their initial internal dashboard into a public facing one, helping us to be open and honest about our spill performance with our customers.



# Making rivers beautiful and supporting others to improve and care for them

- Plant over 1 million trees by 2030
- One hundred per cent of our SSSIs in favourable or recovering status by 2030
- Use our convening powers to help others address their contribution to river health
- Convene a North West Rivers summit in 2022
- In 2022, launch a new partnership to protect watercourse with farmers to incentivise farming practices that reduce impact
- In 2023, launch a Community Fund to support groups to improve our rivers
- From 2023, create a movement of North West citizen scientists to collect data on river health
- Work with partners Rivers Trust, RSPB and local authorities to deliver projects
- Fund local universities and research studies to understand river health
- Catalyse our network of employee volunteers to focus on river health
- Advocate for the removal of the automatic right to connect
- Champion legislation to ban wet wipes that contain plastic and lobby for a ban on all wet wipes that are not 'Fine to Flush'





## CASE STUDY

# Eco Action Day – Wigan – making rivers beautiful

Collaboration with like-minded organisations to tackle the problems facing our rivers is an integral part of our Better rivers plan. Alongside members of the River Douglas Catchment Partnership, we have been working with communities in Wigan to help make their river beautiful.

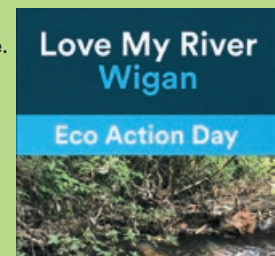
In July 2022 the Partnership hosted an Eco Action Day, bringing together the local community around Close Brook to engage in a range of activities linked to cleaning the brook and learning more about keeping the river clean in the future.

Historically, areas around Wigan along the River Douglas have suffered from the effects of misconnections. This is when waste pipes, typically from washing machines, dishwashers and bathroom plumbing, have been connected into surface water pipes by mistake. The Eco Action Day provided an opportunity to highlight the problems caused by misconnections and what can be done to address them.

Activities on the day included a river clean where volunteers, including teams from United Utilities,

cleared over 20 bags of litter from the watercourse. School children took part in water related arts and crafts and there were demonstrations from our network clearing vehicles. Partners hosted several information stalls sharing tips and information to help the community learn more about their local water environment and the steps that can be taken to keep it healthy, such as what not to flush and pour down sinks and drains.

Feedback from partner organisations and the communities was overwhelmingly positive. The legacy of the Eco Action Day has been notable aesthetic improvements in the river through litter clearing and the engagement with school children and residents. This is helping create a more beautiful river environment, setting a strong foundation to build co-ordinated, integrated programmes of engagement with our partners into the future.





Better Rivers:

## Pledge 4

# Creating more opportunities for everyone to enjoy rivers and waterways

- In 2030, 95 per cent of customers will be no further than 30 miles from a bathing water
- Play our part in creating and promoting additional inland bathing waters in the North West
- Work with others to create ten new recreational clubs at our reservoirs for all our customers to enjoy by 2030

## 250,000

trees were planted during 2021/22





## CASE STUDY

# Piloting opportunities to increase recreational clubs

In support of our Better Rivers pledges, part of our land management strategy sets out a strong ambition to work more closely with partners to address growing public expectations for more recreational access to blue space.

In support of our Better Rivers pledges, part of our land management strategy sets out a strong ambition to work more closely with partners to address growing public expectations for more recreational access to blue space.

Our current approach permits the use of stand-up paddleboarding (SUPs) at five of our 180 reservoirs, awarded following a detailed risk assessment and including all appropriate health and safety controls. Unlicensed use of SUPs is not permitted so we can mitigate the risks associated with entering our reservoirs and protect the public. Every year we campaign extensively on reservoir safety so that people are aware of the dangers of swimming in reservoirs such as cold water shock and machinery hidden under the water.

Following an increase in the take up of water-based activities, particularly through the COVID-19 pandemic, recreational clubs approached us wanting to include SUP as part of their water sports licence on our reservoirs.

In response, we agreed to undertake a closely controlled trial, working in partnership with existing clubs and using Royal Yachting Association (RYA) best practice standards, to assess the feasibility of a change in position that could allow an increase in SUP usage.

The initial trial covers six sites where the incumbent water sports club is already affiliated with the RYA and has good foundations in sailing / water sports. With public health and safety at the forefront of our thinking, the trial is examining several important elements:

- Thorough testing of the risk assessment process
- Testing implementation and compliance monitoring at different locations and club types.
- Exploring the suitability of controls (e.g. lifeguards, safety boats, and signage).
- Testing whether increased permitted use would encourage copycat behaviour.
- Assessing the extent of the participation and implications for both the company and the Licenced Club.

In addition, from an environmental perspective, the trial is considering how to mitigate biosecurity risk as a result of increased pathways for invasive non-native species when paddleboards are used in different water bodies and so potentially transfer species.

As the trial has progressed, it has sought to mitigate these risks and assess the impacts to inform future recommendations. The trial is due to conclude in Autumn 2022 and we will then consider whether to make any changes to our current approach to SUP licencing.



**United Utilities Group PLC**  
Haweswater House  
Lingley Mere Business Park  
Lingley Green Avenue  
Great Sankey  
Warrington  
WA5 3LP

**Telephone +44 (0)1925 237000**

Stock Code: UU.  
Registered in England and Wales  
Registered number 6559020



**Water for the North West**