Clean Rivers and Seas Task Force

July 2024 update

The Clean Rivers and Seas Task Force are working hard to reduce storm overflow releases across the south, prioritising nature-based, sustainable solutions that will protect and improve the local environment for years to come.

The team have made fantastic progress in delivering multiple schemes and interventions across our <u>Pathfinder</u> areas. These projects have measurably reduced storm overflow releases and provided



invaluable learning to allow us o scale our delivery.

We're now in the final phase of our Pathfinder programme, which has served its purpose to determine the most efficient and effective ways to reduce storm overflows, to make sure we get the best results from our next investment cycle (2025-2030). April 2025 will see us scale our storm overflow reduction programme considerably. We'll confirm the details of our plans for this following Ofwat's investment review.

Engagement and partnership in our communities remains essential. Southern Water assets are a key part of the system, but the remainder, particularly the top of the system collecting rainwater or groundwater, is not under our control. This means we require permissions to carry out improvements. If homeowners, businesses, and councils collaborate with us, we can successfully deliver wide-reaching community-based solutions to reduce excess water entering the sewer network.

As a task force, we are clear that we will do everything we can to reduce storm overflows with a sustainable approach, and for the long term. We're looking forward to continuing our work with local communities to help make this happen.

Dr. Nick Mills

Director of Environment & Innovation Clean Rivers and Seas Task Force

Top highlights

 Saved or treated 162 storm overflow releases last year, and 390 so far this year. This number will keep climbing as we continue our mass roll out of improvements.



Southern

 Installed sustainable drainage systems (SuDS) in nearly 100 schools

across the south, in partnership with the Department for Education. The SuDS have managed **over 117 million litres of rainwater** so far.

The success of this project was widely recognised, and we were awarded the Partnership of the Year Award at the Water Industry Awards 2024.

• Worked closely with the Pillhill Pan Parish Council, sealing both public and private pipework across the catchment to reduce groundwater infiltration. This has helped reduce noisy and disruptive tankers from up to 30 needed in previous years, to zero needed today, despite record breaking groundwater levels.

We're extending our storm overflow reduction success

We've received an additional **£10m** in funding to use the innovative techniques and approaches learned from our Pathfinder studies to start work in new priority areas. This will include **Portsmouth Harbour**, high groundwater areas in **West Sussex**, and expanding our existing work in <u>Kent</u>.

Portsmouth Harbour: We're building a multi-million pound programme to reduce storm overflows into Portsmouth Harbour, an important shellfish area. Work is already underway to understand where we can slow down or remove surface water from the sewer system, as well as ensuring our sites are working at maximum capacity.

West Sussex: We're sealing public and private pipework at scale to prevent groundwater infiltration. We're also looking into building a wetland near Bosham Wastewater Treatment Works to hold and treat excess flows, as opposed to them being released into local watercourses.

Answering your questions: Did you know we have FAQ's on different topics, including <u>Storm overflows</u> and <u>Wetlands</u>. Looking for a different FAQ? <u>Let us know</u>.

West highlights

Isle of Wight and Pan Parishes

Top story

Pan Parishes: Sealed over **2.5km** of private pipes, 2km of our network, and 68 manholes to **reduce** aroundwater infiltration. Installed 36 sewer level monitors and 26



26 temperature sensors to monitor results.

This has cut the use of tankers from up to 30 per day to zero despite record groundwater levels.

Read our <u>case study</u> find find out more.

Cowes: Optimised Marsh Road pumping station to use existing storage and relieve pressure on the downstream pumping station, and removed the surface water flow from a 35,000m2 development. These projects are part of a large scheme of solutions which has reduced storm overflow releases by over 40%.

Wootton: Replaced a storm overflow pipe causing flow restriction and its headwall, a protective measure to stop turbulent water degrading the new pipe. This upgrade will prevent flooding in local properties and has decreased releases from the nearby storm overflow.

Yarmouth: Installed a tidal ingress protection flap to relieve the pressure of high tides on the storm overflow outfall. This will keep equipment working properly and reduce emergency alarms and storm overflows at Norton Spit.

Binstead: Offered free household SuDS to reduce flood incidents and surface water as well as working with the Isle of Wight Council to improve the local flood strategy.

Launched a re-greening scheme to help customers replace their driveways with a permeable alternative to help reduce surface water run-off. Six driveways have been converted so far, managing over 250m2 of impermeable area.



Margate: Working with Kent County Council to enhance verges along Gloucester Avenue by turning them into Sustainable Drainage Systems (SuDS). This could manage over **5000m₂ of impermeable area**.

This has reduced releases at our Swalecliffe

Wastewater Treatment Works by 28%.

Read our <u>case study</u> find find out more.

Deal: Completed several projects to slow the flow of surface water including smart water butts and slowdrain water butts, upgrades to roadside gullies, and an upgraded surface water pipe. These and other improvements combined have slowed the flow of over 1.2 million litres of water.

Fairlight: Installed 322 slow-drain water butts which will manage over 32,200 litres of rainwater.

Fairlight: Found and sealed 8 surface water connections to the combined sewer, stopping surface water getting in and increasing resilience of the sewer system.

Fairlight: Carrying out 1.8km of sewer lining to make the sewer system more robust and prevent groundwater infiltration.



Severe groundwater infiltration in Kent

Interested in what we're doing in your area? Watch our Pathfinder videos for Whitstable, Deal, Fairlight, Pan Parishes, and the Isle of Wight.

redirect and store an

Top story Swalecliffe: Changed unlocked additional storage to allow us to

East highlights

and Fairlight

permits and

extra 450 litres of

stormwater per

second.

Whitstable, Margate, Deal

Improving bathing water quality

The coastal environment is a crucial part of our region. Our customers and communities depend on clean seas for health, leisure, and in some cases for their livelihoods. We know we have a big part to play in improving bathing water quality, which is why we've developed improvement plans backed by extensive surveying and investigations for our priority bathing water locations.



Although storm overflows can have an impact on water quality, there are many other factors which we need to consider and address. Watch our video on how we're <u>monitoring water quality</u> to inform our approach.

What we've learned from this testing has contributed to our <u>Bathing Water Improvement Plan</u> which details our plans to improve bathing water quality at each of our 18 priority locations.

Let's talk about the weather

The main driving force behind storm overflow releases is rain, and over the past year the weather has been incredibly challenging across the whole of the UK.

There has been **35% more rainfall this year** than in the same period last year. With all this extra rain, and everincreasing impermeable areas like car parks, driveways, roofs and roads, the complexity of resolving storm overflows is increasing by the day.

However, we're showing resilience to these changes. We're currently rolling out a host of innovative and longterm solutions to slow the flow of water into the network and reduce storm overflows.

Despite the huge increase in rainfall and record breaking groundwater levels, we're already seeing a significant reduction in storm overflow releases at this early stage in our mass roll-out.

Upgrading infrastructure

to reduce storm overflows in Cowes

The problem:

A sharp bend in the pipework underneath Terminus Road was causing water to back up into the sewer system, triggering storm overflows.

What we did:

We removed the existing pipework that was causing the backlog and rebuilt it to remove the tight bend, allowing water flow to pass through with ease.

We also installed a Centaur smart sewer gate controlled by downstream sensors placed in flood risk areas. If the sensors predict a flood risk, the Centaur Gate will operate to prevent flooding.



Storm overflow releases from the Terminus Road overflow immediately decreased once the pipework had been adapted in October 2023, and stopped completely following the installation of the smart sewer gate in November. **Since completion, there have been no storm overflow releases from the Terminus Road overflow**, despite incredibly heavy and frequent rainfall. **Roughly 88 storm overflow releases have been saved since December.**

Note: the outfall pipe associated with the Terminus Road storm overflow is also connected to a different storm overflow in Cowes, so there may still be releases from the outfall despite the Terminus Road overflow not activating anymore. We will of course address releases from other storm overflows as part of our <u>Clean Rivers and Seas</u> <u>Plan</u>.



We need your help to reduce storm overflows

Community action is critical if we're to make the changes needed to protect the environment at the pace required.

We know we have a huge part to play, and are working as hard as we can to reduce storm overflows as quickly as possible. We're making great progress, and with community action we can progress faster and make a much bigger difference.



If a whole street of 100 houses were to each have one slow-drain water butt, it could hold back 10,000 litres of water from entering and overwhelming the sewer system every time it rains.

Water butts are just one of several things you can do at home to help slow the flow. <u>Find out how you can get involved</u> and help reduce storm overflows.

Partnership and engagement

joining forces to make a bigger difference

Since our November update we've engaged with over 5000 customers including...

- **12 customer events** across our region to share our progress and how you can get involved.
- 6 Task Force drop-ins to update customers on our effort to 'slow the flow'
- 23 site tours to help the public understand what goes on behind the scenes.
- 16 school talks to help students understand our mission and answer their questions.
- We also attended a parliamentary drop-in for MPs across the south east to share an update on our progress, our Clean Rivers and Seas Plan, and to answer queries to support collaborative working.



What's next?

West

- **Constructing a wetland** in St Helens to hold and treat storm overflow releases, creating more space in the sewer system.
- Working to rectify a 2200m₂ industrial unit and its car park with surface water directed into the foul system in Fareham.
- Investigating 13 potential highway sustainable drainage schemes to manage surface water run-off from roads, 12 on the Isle of Wight and one in Fareham.
- Investigating five misconnections on the Isle of Wight where surface water is going into the combined sewer, and seeking homeowner permission to fix them.

East

- Installing Centaur smart sewer gates on the Tankerton Circus and Diamond Road storm overflows to help manage flow and storage within the sewer.
- Starting five potential highway sustainable drainage schemes across Kent to manage surface water run-off from roads.
- Investigating 30
 misconnections across Kent where surface water is going into the combined sewer, and seeking homeowner permission to fix them.

As we continue to deliver at scale, we expect to see a steady and significant reduction in storm overflow releases.

We're working hard on our **new and improved storm overflow reporting service**. Rivers and Seas Watch is being co-created with **feedback from our customers** and an **independent review** of our current service, <u>Beachbuoy</u>. Rivers and Seas Watch which will launch over the coming weeks and will feature **all inland outfalls** as well as other useful features like tide and weather data, bathing water classifications and more.



Clean Rivers and Seas Plan

We have almost 1,000 storm overflows in our region and 50% of these are already hitting the government's new 2050 target. We've built our plans to tackle the remaining storm overflows into an <u>Interactive Map.</u>