

Clean Rivers and Seas Task Force

January 2023 update



from Southern Water

Our dedicated **Clean Rivers and Seas Task Force** (previously known as the **Storm Overflow Task Force**) is working on significantly reducing storm overflows by 2030. It's responsible for delivering at least six **Pathfinder** projects in the next two years, trialling new innovative and nature-based solutions to prevent the combined sewer network becoming overwhelmed when it rains. We're working with partners in the community to tackle the run-off from roads and roofs, as well as the additional groundwater that gets into the network.



“The team have been working tirelessly throughout the summer and into the autumn, with early interventions and pilots in full swing. As customers of Southern Water ourselves, we want to find new ways of working so that we can reduce storm overflows as quickly as possible.

It's not good enough to simply build more storm tanks. Where this is required, we will of course do so, but this doesn't tackle the root cause of most of our storm releases. Instead, we must prevent rainwater from getting into the network, or slow the flow of it, so that we can create a sustainable system fit for the future. It's what our customers, stakeholders and colleagues want and deserve.”

Dr. Nick Mills

Storm overflow factsheet

We've created a storm overflow factsheet to answer commonly asked questions. If you want to find out what storm overflows are, why we use them and how we are looking to reduce them, please click [here](#).

Storm overflows
What they are, why they happen, how they affect bathing water and what we're doing about them.

How big is Southern Water's wastewater network?
We operate 307 wastewater treatment works, more than 3,000 pumping stations and a network of around 40,000km of sewers.

We pay for our wastewater to be treated as part of our water bill. How much do you think we pay for it?
Every day we spend nearly £400 million (over a million) to do the job of treating the wastewater. In some of the highest regulatory standards in the world, 99.9% of all wastewater is treated to the appropriate level, meeting the levels and providing a safe, sustainable environment for us all. In addition, we're investing in new technology to help us meet the challenges of climate change, including dealing with increased rainfall and drought, and helping us to reduce our carbon footprint.

Why don't you just try to improve your drains and stop getting your sewerholes blocked?
We do, with funding Eps between 2020 and 2025, with most going to supporting our customers to improve their own drains. We have 100% of our drains inspected and repaired, and 100% of our drains are being replaced back on the business.

What is a combined sewer?
This is a system that carries both rainwater from roofs and roads and wastewater from homes and businesses together in a combined sewer. This means that when it rains, the rainwater and wastewater have to travel together in the same pipe. This can cause problems if the pipes are full, as the rainwater can't get through and has to overflow onto roads. There are over 100,000km of combined sewer in the UK, which means around a quarter of the entire sewer network.

What are storm overflows?
During heavy rain, local sewer networks can struggle to cope with the amount of water being poured into them. When they do, the water has to go somewhere. In some cases, this means that the water has to overflow onto roads. This is what we call a storm overflow. There are 100,000 of these in the UK, and they are a major cause of pollution in our rivers and seas. Storm overflows are a problem for the network's design and are regulated by the Environment Agency. They are used to:

- Provide a safety net to prevent pollution
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Did you know?
The UK sewer network is largely built from the Victorian era, so it's very old and needs to be replaced. This is one of our biggest challenges.

SuDS in schools



Raingarden installed in Brighton

We've partnered with the Department for Education to deliver a £1.7 million project with 47 schools this financial year. Schools from across our region will receive free solutions to divert rainwater back to the environment, rather than it running off hard surfaces (e.g. playgrounds, roofs, car parks) into the sewer network.

Bathing water update

We published our **Bathing Water Season Update** in November.

Find out about our performance and what we are doing in areas across our region.



Pathfinders

We're running Pathfinder projects in six areas: Deal, Margate and Swalecliffe in Kent, Fairlight in East Sussex, Sandown on the Isle of Wight, and Pan Parishes near Andover, Hampshire.

The initial study, summary reports and updates for each of the Pathfinders can be found on our [website](#). Here's an overview of our work in each area.

Key highlights include:

- Moving into the delivery phase for five original Pathfinders
- Adding Fairlight, East Sussex as a new Pathfinder project
- Continuing work to find blockages, unmapped assets or issues with outfalls to further assist progress with Pathfinder projects
- Establishing strong stakeholder and community partnerships in all Pathfinder areas.

Pan Parishes – making progress on projects

- Sealed over 100 private pipes using Tubogel (an innovative chemical which seals pipes, protecting from groundwater infiltration) covering over 900m. A massive thanks to the 96% of people who let us do this on their land!
- Sunk three boreholes to better monitor groundwater levels.
- Made plans to start relining 400m of our network and 50 manholes.
- Developing concept designs for a wetland in the area.

Swalecliffe – working on slowing the flow

- Published the Swalecliffe technical and summary report.
- Plans to 'slow the flow' for initial areas in Swalecliffe, with the roll-out of water butts and planters.
- Reviewing Cornwallis Circle to install community nature-based solutions.
- Planned a planter with a climbing plant installation at Whitstable Library.

In August 2022, the Environment Agency agreed in principle to amend Swalecliffe's wastewater treatment site permit so that the site can be reconfigured to operate in a more conventional way. This should result in around 30% fewer releases with a further 10% reduction of spills expected from work being carried out on site. We expect this work to be completed in May 2023.



Margate – moving projects forward

- Margate technical and summary report published.
- Flow monitors for George V park with case study due early 2023.
- Dane Park and George Park in design phase to install sustainable drainage.
- Highways scheme – Gloucester Avenue (roadside verge/raingarden opportunity).



Deal – reducing local flooding

- Published the Deal technical and summary report.
- Continued support received from Deal Water Action Taskforce, co-chaired by Natalie Elphicke MP.
- Upgraded the surface water sewer in Albert Road, including working together with residents and Kent County Council, which upgraded the roadside gullies in Albert Road.
- About 70 residents signed up for our 'slow the flow' trial to provide smart water butts and raingarden planters to four roads, to reduce local flooding.
- Created Golf Road Pumping Station action plan to reduce local flooding.



Fairlight – assessing the details

- Fairlight technical report published.



184 properties in Havenstreet offered a slow-drain water butt to trial whether it reduces storm overflows from pumping station at bottom of village which activates whenever there is 5mm of rain in 12hr period.

This releases into Blackbridge Brook. 132 properties agreed to a water butt and since, there have been several rainfall events and a significant reduction in spills. A case study will be published early in 2023.

Isle of Wight - working together to make improvements

- Sandown technical and summary report published.
- Newport and Ryde regeneration schemes in collaboration with Island Roads and IWC to plant tree pits outside County Hall in Newport and roll-out planters to both areas.
- Cowes connectivity surveys started for water butts and planters to be rolled out in the area.
- Havenstreet Church Road – collaboration with IWC, Island Roads and Portsmouth Diocese to consider swale to prevent nuisance water from freezing and causing slips, trips and falls.



Beachbuoy

Beachbuoy is our near-real time storm release activity tool, which informs the public about any storm releases along the coast. In collaboration with the Beachbuoy Working Group, significant changes went live on Beachbuoy on 12 September following months of development. These changes include:

- The system now uses extensive **tidal modelling** to work out whether a bathing water will be impacted by a storm release. Bathing waters will now only show a red flag on the online tool, if the modelling determines that it will be impacted. An independent report into this way of modelling is ongoing and will be published in early 2023.
- To ensure transparency, all storm releases are still recorded in the data release table and when the bathing water icon is clicked, all associated outfalls will be displayed to indicate if any have released.
- Working in the background, we've improved our processes to confirm whether a release is genuine/not genuine. This will speed up our notification process to the public.



Water quality testing buoys

We are trialling two water quality testing buoys.

One is currently offshore in Tankerton Kent, and the other has been launched off Hayling Island.

These are 12-month pilots to test a new type of instrument which will take measurements every 15 minutes.

As the technology hasn't been tested in this environment before, we need to make sure they work effectively before further schemes can be rolled out across our region.

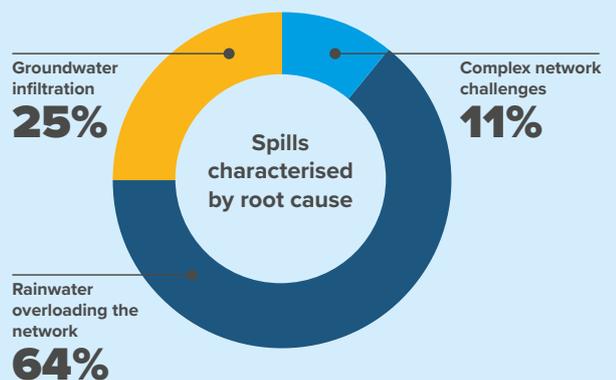
Data captured by the water quality buoys at these two locations, will be made publicly available before the start of the next bathing season in May 2023.



Regional plan

Our regional plan has been drafted and will be published in spring 2023.

The plan highlights the need for approximately £2 billion investment to significantly reduce storm releases.



Where you may have seen us

If you haven't seen us at public events, we've also been presenting at Pollution, Management and Risk, Future of Utilities, and CIWEM Urban Drainage conferences. You can also read articles in Utility Week, CIWEM and in the press.

If you are a school, local authority, charity or organisation and you want to partner with the task force, please email us at partnerships.overflows@southernwater.co.uk.



Engagement highlights

- Meeting with Defra on the Isle of Wight, and Ofwat at Budds Farm Wastewater Treatment Works – explaining how we want to accelerate our targets.



- **Writing to the Secretary of State**

to explain how we are reducing storm overflows.

- Facilitating over 20 site tours of wastewater treatment works across our region, for our customers and stakeholders. This is a very successful scheme where members of the public can ask the task force questions and learn about the wastewater treatment process. This programme will continue for the foreseeable future.

- Attending public meetings and events – we want to answer customer and stakeholder questions and welcome engagement opportunities.

- Presenting a ‘hot topic’ overview at the Solent Forum meeting and being invited back to deliver a longer slot at the next forum in March.



- Holding a Deal Residents Drop in with key people on the day showing the interventions and plans to tackle flooding in the area.

- Taking part in monthly meetings with various councillors across Swalecliffe, Deal and Margate.

- Attending monthly meetings with SOS Whitstable.

- Contacting Swim England to look at sharing educational materials and ideas, to help them talk to their membership about storm overflows and the impact on water quality.



- Meeting with Northumbrian Water and Yorkshire Water to discuss partnership working focused on flooding.

- Participating in a meeting with Wessex Water to discuss their water quality app relating to inland bathing waters and aiming to learn from and/or partner with their team.

- Holding an **ADEPT** (Association of Directors of Environment, Economy, Planning & Transport)/ Southern Water workshop with about 25 local authorities, discussing how partnership working is the way to tackle surface water run-off and reduce storm overflows.

- Task Force presented at Brighton Sailing Club in November.

- Creating the customer insight programme which began in December 2022.



What to expect to see from the task force in 2023?

- Fairlight summary report published.
- Water quality buoy data to be published on local council and Southern Water websites.
- Regional plan published to significantly reduce storm overflows by 2030 across our region.
- Citizen science results for Sandown and Whitstable.
- Further educational materials and FAQs.
- Progress updates on all the Pathfinders and SuDS in schools programme.
- Gurnard, Isle of Wight – 1000 slow drain water butts, 20 large roofs managed, six highway schemes and a pumping optimisation scheme.
- Wootton, Isle of Wight – 700 slow drain water butts, 12 large roofs, a highway scheme and a pumping optimisation scheme.

- Freshwater and Yarmouth, Isle of Wight – delivery work started.
- Case studies from early interventions and pilots:
 - Havenstreet – slow-drain waterbutt pilot
 - Margate – George V park SuDS
 - Deal – slow the flow trial
 - Deal – surface water upgrade
 - Pan Parishes – Tubogel programme
 - Swalecliffe – storm tank optimisation
 - Whitstable/Tankerton Circus – slow the flow
 - Gurnard – slow the flow rain harvesting
 - Gurnard/Cowes misconnections – surface water into the foul
 - Whitstable – Cornwallis Circle.