

South West Water Spotlight Review Key Lines of Enquiry

Water supply

We have just had one of the wettest Julys with parts of the south-west recording more than twice the normal monthly rainfall, yet we have been subject to a hosepipe ban for many months.

1. What are the reasons for the need for hosepipe bans and what measures are being undertaken by South West Water (SWW) to alleviate this in the future in light of both climate change and population growth?
 - We are pleased that as a result of combined efforts across the region, we were able to lift the TUBs in both Cornwall and parts of Devon on the 25th September.
 - Last year, the UK faced an extreme period of drought, which provided the biggest challenge to water resources in the South West for a generation. This is a sign of what is to come and highlights the critical importance of investing in long-term resilience. The hottest, driest weather on record in 2022 means we need to invest at speed to ensure ongoing security of supply.
 - We are investing in the future for how we manage water resources to increase supplies and resilience across the region, and support customers as they take action to reduce their usage through our Save Every Drop campaign.
 - Our current system relies heavily on rain and the water in rivers and reservoirs, and climate change has shown us that we need to be developing climate-independent sources of water in Devon and Cornwall.
 - We are doing just that with a water resources investment of £125m, repurposing disused quarries, investing in desalination, and reducing demand side actions with innovative solutions such as Save Every Drop (reducing demand by circa 3% to 4%).
 - Our interventions so far have already delivered results, boosting resources by c.25% in Cornwall, and c.12% in Devon.

HISTORIC

Over the past two decades we have been working hard to secure supplies through:

- Reducing leakage by 40% since privatisation
- Increasing reservoir storage by converting former clay pits into reservoirs
- Improving our ability to move water around the region by upgrading pumping stations, pipes and valves
- Increasing the capacity of our water treatment works by upgrading treatment processes and technology
- Using less water in our treatment processes, for example, we recycle water for jobs onsite, like cleaning screens at our wastewater treatment works
- Investing in pump storage schemes at Wimbleball and Colliford to improve resilience by taking advantage of high river levels.

2. Please can you provide the statistics relating to water usage and rainfall for the past 10 years so that we can understand the trends and challenges.

Awaiting information

3. What is SWW doing to improve the sustainability and reliability of supply to its customers into the future?
 - We operate across a unique topography where 90% of our water resources are derived from rivers and reservoirs. None of our strategic reservoirs are directly connected to treatment works, and therefore the efficacy is directly driven by the health of the rivers. It's the low river flows that will drive the depletion of a reservoir, which acts as a storage facility in drier months.
 - We are making water resources investment of £125m, repurposing disused quarries, investing in desalination technology, and reducing demand side actions with innovative solutions such as Save Every Drop (reducing demand by circa 3% to 4%).
 - We continue to promote our "free find and fix" offer for customers with private leaks at their homes. With 30% of leakage occurring here, we are now fixing three times more leaks than before this offer began— saving enough water to date to serve the equivalent of 8,000 homes.
 - Our teams are working around the clock to conserve our water resources and fix leaks. We continue to invest in innovative technology and solutions to help locate hard-to-spot leaks.
 - We are finding and fixing more leaks than ever before. Using satellites to find water leaks two metres underground, invisible to the human eye, using drone pilots to cover hard to reach places across Dartmoor and Exmoor, using detection dogs to find leaks in challenging terrain, and fixing around 2,000 leaks a month. With around 30% of leaks now typically found on customers' own properties, we have extended our offer to fix these leaks for free. We are investing £87m to reduce leakage by up 15% by 2030, enough to fill 2,600 Olympic swimming pools per year.
4. Many areas within the SWW area are reliant on tourism and therefore the appearance of their towns and green spaces, how do SWW support businesses and authorities affected by the negative impact of a hosepipe ban on the appearance of the environment?
 - The hosepipe ban/TUBs was directed at household customers, not businesses or authorities. We were however also working with many business customers to help them encourage water efficiency as we adapt to a changing climate. We understand the importance of tourism to our region, and we are determined to support the economy on which our communities rely upon. We have offered free leak repairs and water saving devices to businesses and provided grants for water saving ideas through our Innovation Fund. Mindful that we all have a role to play in using water wisely, particularly during droughts, we also reached out to non-household retailers in our region asking to work together to promote these offers to business customers.

Sewage treatment

1. What demographic forecasts are you working to in order to assess future requirements and capacity in terms of supply of water, drainage and sewerage treatment?
 - SWW has a statutory obligation to ensure that there is the necessary water and sewerage infrastructure in place to provide the required clean water and waste water levels of service to our customers. This includes that we ensure that new development does not cause a deterioration to these standards for existing customers within the region. It also has an obligation to ensure that any increase in load of sewage receives sufficient treatment to meet the permit requirements for safe release into the environment.
 - We liaise with Local Planning Authorities (LPA) to ensure that we are aware of the potential growth in our region based on Local and Neighbourhood Plans. We use this information to inform our growth forecasts along with enquiries from developers to inform our planning process. We then use these forecasts to assess whether there may be a need to increase the capacity of our clean water or wastewater networks to cope with the increase in demand. Any strategic works identified are typically included in our five-year business plan.
 - SWW publishes its Water Resource Management Plan (WRMP) and Drainage and Wastewater Management Plan (DWMP). These are documents that set out how we intend to meet our service obligations for both clean water and wastewater in the future. They use population forecasts based on information from Local and Neighbourhood Plans along with other data sources such as population data from the Office of National Statistics (ONS).

2. How will you ensure that additional housing growth will not increase the frequency and or amount of sewage discharges?
 - New developments normally only discharge foul sewage into the public (combined) sewerage system. Their surface water should be collected separately and discharged elsewhere, for example, to natural watercourses or SUDS. However, new housing development still has the potential to impact both the frequency and volume of discharges into the environment from our overflows.
 - When we receive an enquiry from a developer, we carry out an assessment to understand the ability of the local infrastructure to cope with the extra demand. The evaluation includes a consideration of any additional impact from climate change and future changes in personal consumption. Where a risk to service is highlighted, we look to carry out a more detailed assessment using hydraulic modelling to understand the impact and to develop a solution to mitigate the risk. Delivery of these interventions is funded through the Infrastructure Charge, that we receive from developers, for the purpose of reinforcing our network to enable growth. The timing of the investment will depend on the progress of the development through the planning system which we monitor using the Annual Monitoring Reports from local councils and other sources. We work closely with developers to ensure necessary works are in place to avoid any

impact on the existing network. This might mean that we look for a timing clause at planning to achieve this.

- SWW is not currently a statutory consultee for the planning process. However, we do comment upon the LPA's local plans for strategic development and provide feedback where required on planning applications to ensure any risks to our assets are minimised, including asset protection and hydraulic capacity.

Storm water capacity

1. What is the reason storm water surges result in raw sewage outflows, what is the frequency of this is occurring over time (please provide a graph to show a trend), and what is being done to prevent this in the future?
 - Storm overflows (CSOs) are built into the sewer network systems so that at times of high network pressure, for example when flows are increased by heavy rainfall, they can take excess volumes of water out of the system, discharging flows to rivers or seas. This stops this flow backing up in the system and flooding into homes and businesses.
 - The vast majority of flows continue to be pumped to and treated at the sewage treatment works, it is only a very small proportion that will be released to the environment. And the discharge is highly diluted, being over 95% rainwater and surface water.
 - The answer to the question below answers the second half of this question. But also please refer to our WaterFit Live webpages, where you will find information on storm overflows, their operation and our investment plans [Bathing water quality | WaterFit Live | South West Water](#)
2. What plans do South West Water have to reduce sewerage discharges and by when?
 - Whilst CSOs were built as part of the system and we have permits from the Environment Agency to operate them, it is clear to us, from listening to our customers and communities that they want us to go further and faster in protecting and enhancing our rivers and seas and that reducing spill numbers from storm overflows should be part of this.
 - We've listened and changed our plans, accelerating our investment to reduce the average number of spills to 10 or less a year by 2040. 10 years ahead of government targets

Across the region there are 1,342 storm overflows. Of these:

- 89 have already been prioritised for action in our Waterfit programme and a further 4 on the rivers Dart and Tavy through our Green recovery programme by 2025.
- In addition, we have prioritised a further 14 in Falmouth and Sidmouth as part of an accelerated delivery programme and are proposing to prioritise a further 68 storm overflows by 2028 of the highest spillers and those near the South West's most

sensitive sites for nature and shellfish, and those close to bathing waters and where communities are particularly concerned.

- A further 662 overflows will then be prioritised for action as we implement our Drainage and Wastewater Management Plan/Waterfit 2040 Plan between now and 2040.
- The remaining 506 have an average spill rate of less than ten times per year and will be addressed over time through our ongoing maintenance programme

We recently submitted our plans for storm overflow reduction to Defra, taking us into AMP 8 and beyond. We will publish them in due course.

3. How much waste is actually dumped each time there is an alert

- We do not 'dump' sewage when a storm overflow operates. They were built as part of the network and we have permits from the Environment Agency to operate them.
- Event Duration Monitors (EDMs) are installed on all our storm overflows. They use sensors to measure the level of flow in our assets. These sensors trigger an alert to us when the level reaches the overflow point, indicating when the overflow is likely to be discharging.

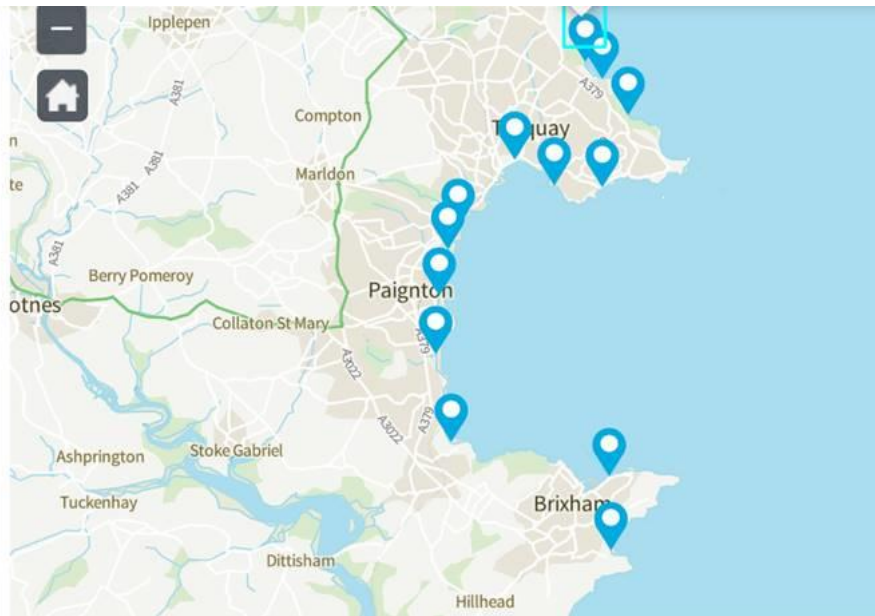
The EDM measures the start and end time of any overflow operations. Our monitors are not able to measure the quality or volume of the flow being discharged.

- Based on the information from our EDMs a BeachLive notification is sent out when an overflow event has occurred that might temporarily affect bathing water at a beach. It is not always the case that an individual discharge from a storm overflow will affect the bathing water. It will depend on factors such as duration and location of discharge, state of tide and relative size of the storm overflow.
- The process for issuing a BeachLive alert (or WaterFit Live amber pin) is rigorous and based on a mixture of specialist equipment, modelling calculations and local knowledge of the bathing water.
- It is important to note that storm overflows operate on a combined network that mixes rain and surface water with foul flows (sewage). When a storm overflow operates the flow discharged is largely rain and surface water – over 95% on average, so it is very dilute. In addition the vast majority of the flow still continues onto the sewage treatment works to be treated.

Bathing water quality

1. Please can you identify the local water quality deficiencies and the reason for them and future mitigation measures.

Bathing Waters compliance - Torbay area



Name	2022	2021	2019	2018
Anstey's Cove	Excellent	Excellent	Excellent	Excellent
Babbacombe	Excellent	Excellent	Excellent	Excellent
Beacon Cove	Excellent	Excellent	Excellent	Excellent
Breakwater Beach (Shoalstone)	Excellent	Excellent	Excellent	Excellent
Broadsands	Excellent	Excellent	Excellent	Excellent
Goodrington	Good	Good	Sufficient	Sufficient
Hollicombe	Good	Good	Good	Good
Maidencombe	Excellent	Excellent	Excellent	Excellent
Meadfoot	Excellent	Excellent	Excellent	Excellent
Oddicombe	Excellent	Excellent	Excellent	Excellent
Paignton Preston Sands	Excellent	Excellent	Excellent	Excellent
Paignton Paignton Sands	Good	Good	Good	Good
Torre Abbey	Excellent	Excellent	Excellent	Excellent

Associated storm overflows at Bathing Waters and investment plans under WaterFit.

Information sourced from: [Bathing water quality | WaterFit Live | South West Water](#)

- **Ansteys Cove**

There are no storm overflows associated with this bathing water

- **Babbacombe**

Overflow Name	Spill numbers 2022	Spill numbers 2021	Spill numbers 2020
Beach Road Storm overflow Torquay	2	2	2

No investment planned under WaterFit

- **Beacon Cove**

Overflow Name	Spill numbers 2022	Spill numbers 2021	Spill numbers 2020
Beacon Hill storm overflow, Torquay	6	13	26
Fleet Walk 1 storm overflow, Torquay	15	25	18
Fleet Walk 2 storm overflow, Torquay	18	31	19
Fleet Walk pumping station overflow, Torquay	0	0	1

We have earmarked circa £200,000 of investment up to March 2025 at Beacon Cove. We are assessing data collected from the catchment area to look at how best to improve the performance of the current sewerage system.

- **Breakwater Beach (Shoalstone)**

Overflow Name	Spill numbers 2022	Spill numbers 2021	Spill numbers 2020
Berry Head storm overflow, Brixham	18	18	0

No investment planned under WaterFit

- **Broadsands**

There are no storm overflows associated with this bathing water

- **Goodrington**

Overflow Name	Spill numbers 2022	Spill numbers 2021	Spill numbers 2020
Clennon Valley pumping station overflow Outlet 1, Paignton	5	0	18
Grange Court pumping station overflow, Paignton	3	4	5

We have earmarked circa £400,000 of investment up to March 2025* at Goodrington through WaterFit

Clennon Valley storm overflow already has a large storm water tank. To further reduce discharges from storm overflows, we are looking at opportunities upstream to stop surface water, such as rainwater and groundwater, entering the network by 2025. This helps reduce

the volume of water in the network and therefore helps reduce the operation of storm overflows.

- **Hollicombe**

There are no storm overflows associated with this bathing water

- **Maidencombe**

There are no storm overflows associated with this bathing water

- **Meadfoot**

Overflow Name	Spill numbers 2022	Spill numbers 2021	Spill numbers 2020
Ilsham Road storm overflow, Torquay	2	0	0
Ilsham Valley pumping station overflow, Torquay	79	93	123

No investment planned under WaterFit. We are currently considering strategies to reduce frequency of discharges at Ilsham Valley Pumping Station however, this requires substantial investment and planning and will likely take a considerable amount of time, with investment over several business plans. It is also likely to include removing the River Fleet from our combined sewer system.

- **Oddicombe**

There are no storm overflows associated with this bathing water

- **Paignton Preston Sands**

Overflow Name	Spill numbers 2022	Spill numbers 2021	Spill numbers 2020
Churscombe Cross pumping station overflow, Marldon	11	23	22
Preston Green pumping station overflow, Paignton	4	11	29

No investment planned under WaterFit

- **Paignton Paignton Sands**

Overflow Name	Spill numbers 2022	Spill numbers 2021	Spill numbers 2020
Clennon Valley pumping station overflow Outlet 2, Paignton	5	16	12
Clennon Valley pumping station overflow Outlet 3, Paignton	24	11	0
Littlegate Road storm overflow, Paignton	4	5	8
Paignton Tank storm overflow, Paignton	4	7	6

No investment planned under WaterFit

- **Torre Abbey**

Overflow Name	Spill numbers 2022	Spill numbers 2021	Spill numbers 2020
Cockington Lane pumping station overflow 1, Torquay	0	5	6
Cockington Lane pumping station overflow 2, Torquay	1	5	Not in use
Kings Drive Penstock storm overflow, Torquay	1	2	2
Old Mill Road storm overflow, Torquay	27	21	67

No investment plans under WaterFit

2. How do SWW measure the impact of sewage discharges on our marine grasses and seahorse and other sea life?

The EA assess the health of the water environment using ecological status, chemical status, and the condition of protected sites. The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 – ‘the Water Environment Regulations 2017’ comprise up to 126 elements to be assessed. The tests are applied to rivers, lakes, estuaries, and coastal waters up to one nautical mile from shore, across 4,658 surface water bodies and 271 groundwater bodies.

Assessments of the water environment include:

- ecological status
- chemical status
- groundwater status
- bathing, shellfish, and drinking water protected areas status
- protected nature site condition

SWW do not monitor environmental water quality. SWW’s environmental permits to discharge do however require us to undertake monthly sampling on the quality of the final effluent to ensure that the limits stated within the permit are met. This data is analysed and used to assess treatment stability at the site, the probability of failure across each sanitary parameter and thereby used to prioritise investment.

In addition we measure the daily volumes discharged to ensure that we maintain compliance with the permit limits and use this data to assess when expansion may be required to accommodate catchment growth