



South West
Water

Storm overflows

Event and duration monitoring 2020



southwestwater.co.uk

**new
deal**

Bringing water to life – supporting the lives of people and the places they love for generations to come.

All water companies have a vital role today and every day, providing customers with safe and clean drinking water, with the importance this has on health and hygiene – Bringing water to life. That's a given.

We also believe we have a unique role to play in supporting the lives of people and the places they love for generations to come. That's why we exist.

For us, it's not just about what we do – but how we do it – and that's why we place such importance on living our core values daily, operating in the public interest, in the regions we support.

This document accompanies our published storm overflow data for 2020. It explains what storm discharges are, how we monitor them, the environmental context for the South West, how we use overflow data to inform investments and sets out our future plans.



Trusted



Collaborative



Responsible



Progressive

This document covers the following:

- Our region
- A summary
- What are storm overflows
- Storm overflow – Impact
- What is event and duration monitoring (EDM)
- EDM – Accuracy, data and reporting
- Drainage responsibilities
- Investing to improve our environment
- What we are doing for the future

Introduction

Storm overflows are legal discharges from the wastewater collection network that occur in very wet weather to prevent flooding of homes and businesses.

Over the last 20 years, investment by water companies has dealt with most of those storm discharges where the Environment Agency had identified environmental problems. But we recognise there is more to do, which is why the sector is planning to invest £51 billion over the next four years to further address storm discharges.

In 2013, Defra set a requirement on water companies to be able to monitor the performance of the 'vast majority' of storm overflows by 2020. To achieve this, we fitted large numbers of event and duration monitors to our storm discharges.

We use this data to make sure our network is still operating correctly and capable of meeting the new more extreme weather we see from climate change.

Over the years we have worked with the Environment Agency to identify any discharges that weren't providing enough protection for rivers and coastal waters. This has led to considerable investments in additional wastewater treatment and stormwater storage capacity, and has played a part in delivering vastly improved environmental water quality in the South West.



OUR REGION

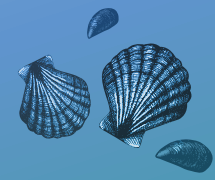
South West Water is the water and wastewater service provider for Cornwall, Devon and parts of Dorset and Somerset. We also provide water services to Bournemouth Water customers in parts of Dorset, Hampshire and Wiltshire. More recently, with support from our existing customers and agreement with Government, we have taken on the responsibility for water and wastewater services on the Isles of Scilly.



OUR AREA

DID YOU KNOW?

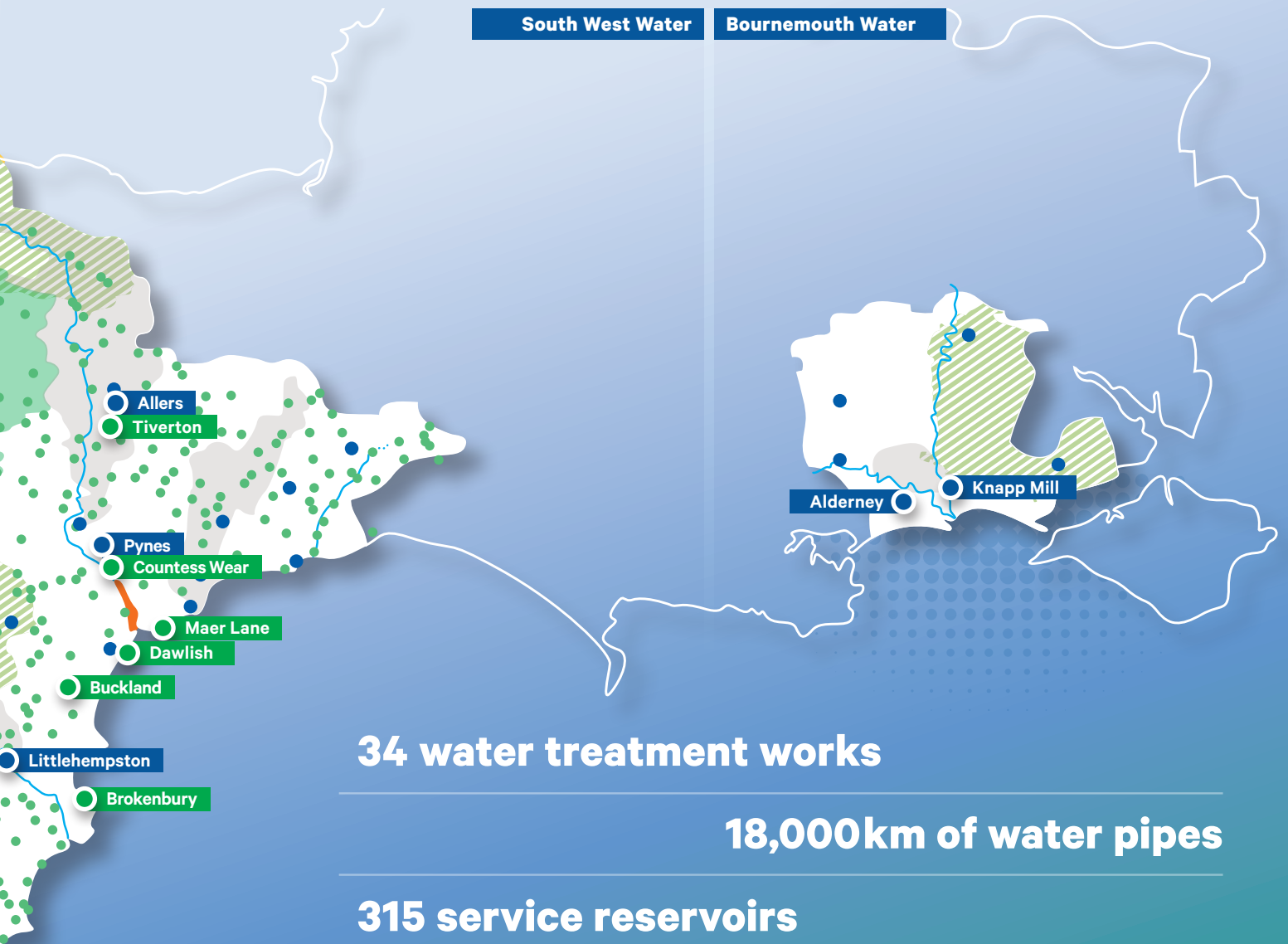
2.2million resident population equivalent (over 1 million customers) and **10million** visitors to our area each year



25 designated Shellfish Waters

34% of all the designated Bathing Waters in England





34 water treatment works

18,000km of water pipes

315 service reservoirs

268 water pumping stations

A sewerage network over
17,500km
in length

**1,220
wastewater
pumping stations**

– to move wastewater through our network and on to treatment works

**651
wastewater
treatment works**

– using a diverse range of processes and technologies

Provision of ultra violet disinfection or membrane filtration at
more than 65 wastewater sites
to protect Bathing and Shellfish Waters to the highest standards

SUMMARY

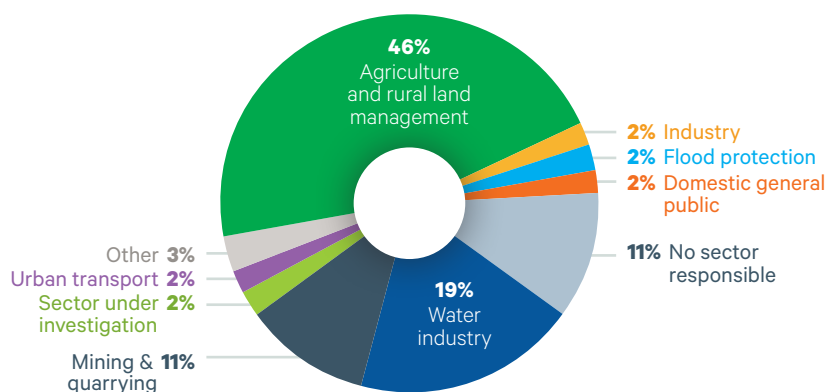
South West Water recognises the public interest in the potential for pollution from storm overflows.

During heavy rain stormwater overflows act as legal safety valves to prevent homes, gardens, roads and businesses being flooded.

When our storage tanks and pipes become full during a storm, the excess dilute stormwater is permitted to discharge to rivers, estuaries and the sea. Storm overflows play a crucial role in reducing the risk of people's homes being flooded.

- **We, like all water companies, are committed to protecting rivers from pollution.** This has included extensive upgrades to Wastewater Treatment Works and removing the raw sewage discharges that used to go into the sea around the South West coast. At privatisation we inherited a system where wastewater from around 40% of the population discharged into the sea untreated.
- **For storm overflows we have improved over 298 stormwater overflows to Bathing Waters and 382 to Shellfish Waters since 1989**, by adding more than 222,100 cubic metres of additional stormwater storage built at a cost of over £100million. This work was targeted at those storm overflows which were having an adverse effect on bathing or Shellfish Waters, or the environmental quality of rivers. We have also invested significantly to install event and duration monitors (EDMs) on our intermittent discharges.
- **The majority of reasons for rivers not achieving 'Good' status under the Water Framework Directive (WFD) are linked agriculture, mining, roads, industry, and other sources.** Many of the water industry impacts on WFD compliance have been addressed but there is more to do and we continue to make improvements where the Environment Agency agree action is needed, such as reducing the permitted amounts of phosphorus from wastewater treatment works. However, storm overflows are not assessed by the Environment Agency as significant contribution to not achieving WFD Good status for rivers.

Reasons for not achieving 'Good' status in the South West Water area



DID YOU KNOW?

Less than 1% of the water industry impact on 'Good' status is attributed to intermittent storm discharges in the South West area.

- **EDM data provides valuable information** that enables South West Water to understand sewer performance and helps the Environment Agency to ensure that sewerage systems are compliant with relevant legislation and not impacting environmental water quality. It also improves the visibility of the performance of the sewerage network to third parties including the public.

- **We are publishing our storm overflow EDM information to demonstrate how we use this data to work with the Environment Agency to identify improvements and to highlight our future plans and investments.**

This data has been audited, and provided to the Environment Agency as part of annual and bathing season regulatory data reporting.

- **It is important to note that overflow numbers are not a measure of environmental impact; they are a trigger to investigate.** Our upcoming investment already includes undertaking new Storm Overflow Assessment Framework (SOAF) assessments, and identifying areas for improvement of storm discharge performance. Investigations are shared with the Environment Agency to create new investment drivers where improvements are beneficial. In addition, we have recently put forward Green Recovery acceleration plans to the Government and regulators, to increase monitoring of our network and improve management, performance and understanding of storm overflows through investigation. We also plan to accelerate work to reduce storm overflows where the Environment Agency agree they are having an environmental impact.
- **Partnerships and regulatory change are required to manage complex drainage matters sustainably in light of climate change.** There is no obvious alternative to storm overflows without huge infrastructure investment and disruption to remove rainwater from the combined sewer system. Any infrastructure-based solutions would be a massive undertaking and likely require a significant increase in bills not to mention huge disruption caused by the need to dig up hundreds of kilometres of sewers mainly located under roads. However, in light of the changing climate and increased extremes of rainfall events we have been pursuing catchment level solutions to keep clean rainwater out of the combined sewer system and minimise the need for storm overflows to operate – this needs some regulatory change and effective partnerships to become the norm.
- **The data for 2020 shows an increase in both the number of operations per storm overflow and the average duration of overflows, to that recorded in 2019.** Much of this can be attributed to rainfall, with the 2019/20 winter period recorded as the fifth wettest in history.

February 2020 was the UK's wettest February since records began in 1862. England, Wales and Northern Ireland all saw their wettest February on record, with Scotland seeing it's second wettest. Overall, the UK had 209.1mm of rain which is 237% of the average for February. This exceeds the previous record of 193.4mm set in February 1990.

The number of discharges with event duration monitoring has increased over the last three years; these are mainly inland installations. New EDM installations for the 2015 to 2020 investment period were delivered from late 2018 to early 2020. The more EDMs installed the greater the number of overflows recorded.

SOUTH WEST FACTS

DID YOU KNOW?



Average rainfall is
1,000mm
per year

The Met Office has identified that **extended periods of extreme winter rainfall** are now **7 times more likely**



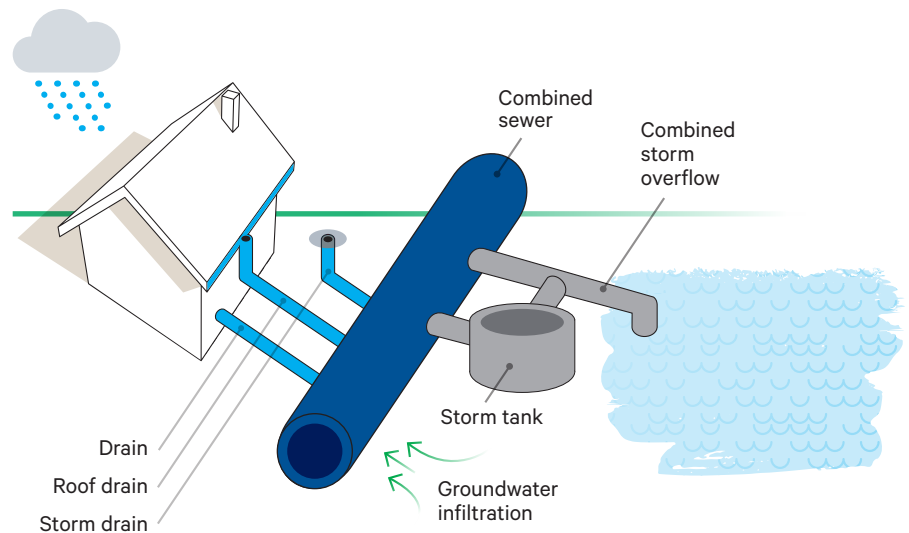
Our 2020 EDM data can be found at this address:
southwestwater.co.uk/edm-return-2020

WHAT ARE STORM OVERFLOWS

A combined sewer means that the sewer is doing two jobs as it receives base flows of wastewater from homes and businesses, but also peak flows of stormwater from the built and natural environment.

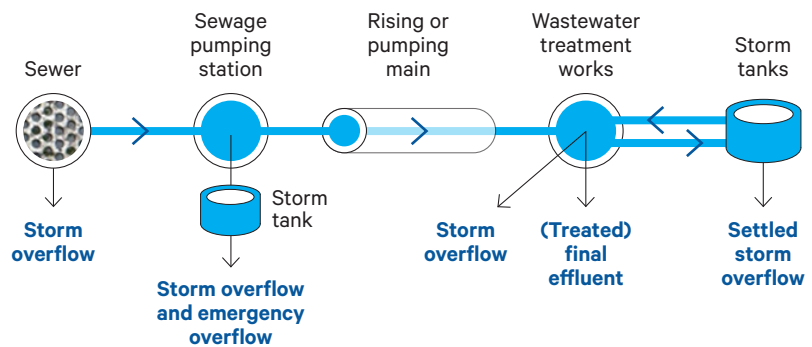
Historically, systems have been designed to move rainwater away as quickly as possible in gutters, pipes and ditches.

The Combined Sewer system



During dry weather the treated final effluent from a wastewater treatment works should be the only discharge to the environment. With heavy rainfall, the levels in sewers rise and storm tanks fill and eventually can start discharging screened dilute stormwater to the watercourse. With higher intensity or prolonged rainfall, the storm overflows upstream of the storm tanks start to operate. The other type of discharges are emergency overflows – these are at sewage pumping stations and are not designed to operate in response to rainfall, but in response to an emergency situation associated with pumping assets, such as power cuts. There are currently 1,594 intermittent (stormwater and/or emergency) discharges on our network.

Discharges from the combined sewer system



The wastewater network has storage within the system (in-line) and outside (off-line). Storage allows the initial 'first flush from storms to be collected and treated afterwards. The Wastewater Treatment Works can treat typically three times the dry weather flow, but has a finite capacity so also has storm tanks.

DID YOU KNOW?

South West Water manages over 17,500 kilometres of sewers.

A large proportion of our sewerage, as in the rest of the UK, is 'combined'.

STORM OVERFLOWS – IMPACT

“Overflows of diluted sewage during heavy rainfall are not a sign that the system is faulty. Combined sewer overflows are a necessary part of the existing sewerage system, preventing sewage from flooding homes and businesses.”

– Environment Agency

Storm water overflows are permitted by the Environment Agency who set the conditions needed to help protect receiving water quality.

Storm overflow operations have attracted a lot of attention recently. However, it is important to note that overflow numbers are not a measure of environmental impact; they are a trigger to investigate.

Currently operating storm overflows should not have an adverse impact on the environment. Where overflows were causing problems we have worked with Environment Agency to address these by providing additional storage or reducing storm flow that reaches the sewers. So where storm discharges only pose a potential problem if present at the same time as other activities (such a swimming in Bathing Waters or shellfish harvesting), then warning and response systems can be better than trying to reduce overflows further.

The main measure of river quality is the Water Framework Directive. The water industry contribution to river water quality is related to phosphorus discharged from treated effluent (continuous) discharges from waste water treatment works, and not from storm discharges. Misconnections from domestic properties are also a contributing factor, which is not the responsibility of the water industry. Of course there will be some overflows which do cause short term impacts and we work with the Environment Agency to identify and address these.

At wastewater treatment works we have installed many phosphorus removal plants and continue to work with the Environment Agency to identify where reductions are needed and can help WFD status to improve – in many cases other sources of phosphorus, such as from agriculture, need addressing first.

We work with the Environment Agency to identify where the current permitted load of phosphorus from our WWTW should be reduced with the aim of helping achieve ‘Good’ status in water bodies.

The most recently published WFD data on river water quality will not include the benefits of our 2015-20 improvements to reduce phosphorus in waste water discharges as many of these schemes were delivered towards the end of that period. We hope to see further improvement in ecological status in the next assessment, and beyond for the schemes being delivered during 2020-25. There will however remain significant other sources of phosphorus contribution e.g. from agriculture.

WHAT IS EVENT DURATION MONITORING

In 2013, Defra set a requirement on water companies to be able to monitor the performance of the vast majority of storm overflows by 2020.



EDM ultrasonic head

To achieve this water companies installed many more overflow monitors during the 2015-20 investment period.

South West Water currently has 1,095 EDMs which will rise to around 1,274 by the end of 2025. Our Green Recovery Initiative includes installing EDMs on every overflow by the end of 2025.

- An EDM is usually an ultrasonic head but can be a pressure transducer, flow monitor or a signal derived from pump status if the discharge is via storm pumps.
- EDMs are usually installed at the point of discharge to the environment from sewers, inlet channels, storm tanks and storm chambers etc.
- Data collected from these monitors are usually recorded as an analogue trend, but a digital signal is sometimes used.
- From this data reportable events and alarms are triggered when the overflow level is exceeded (or when the storm pumps run).
- Overflow frequency and duration varies both from system to system, and from outfall to outfall. EDM is used in storm overflows to determine the duration of an overflow event.
- There is no requirement to measure the volume of the overflow.
- The monitoring system logs when a certain condition is met – when a certain flow is reached, or a certain water level – and then logs again when that condition is no longer met. These start and finish points provide a duration for the overflow event and this is often recorded via telemetry. Telemetry offers a rapid response if information about an overflow operation is urgently required.

The Environment Agency has categorised overflows requiring EDM using a risk based approach. Those with the potential to impact Bathing Waters, Shellfish Waters and High Amenity locations which require two minute interval recording and telemetry. Those assessed under the risk based approach as requiring EDM at medium and low amenity sites which require 15 minute interval monitoring.

EVENT DURATION MONITORING – ACCURACY

There are a number of technical difficulties that impact accurate discharge recording.



A V-notch weir
photo credit: ww.openchannelflow.com



Storm tanks catch the ‘first flush’ of storm water through the combined drainage systems for treatment when the storm has passed. This means storm overflows are largely rainwater.

EDMs are normally placed at the point of discharge to the environment above a weir plate – either a v-notch or a square mouth. Both types hold a volume of water behind the plate at all times. The EDM is set up to read to the nearest millimetre to the bottom of the weir. It only takes a leaf or a twig to be trapped against the weir plate for false or extended overflows to be recorded.

EDMs can also be placed on overflows directly from storm tanks as this is considered the point of discharge if there are no separate storm chambers. The difficulty with this is that the EDM will be configured to measure the invert level or the bottom of the overflow pipe. This can also lead to over reporting of overflow durations due to the EDM recording the surface level of the tank which may sit at the bottom of this invert waiting to be returned when inlet flows allow. This means that we can be recording that the tank is full but not necessarily that it is discharging post a rainfall event. It is especially difficult to record overflow durations on storm tanks that have a large surface area.

As a company, we accept that our overflow durations may not be fully accurate, but we feel it is better to over report, than to under report overflow events. Investigations into sites that are considered to be frequently discharging are currently being undertaken across South West Water’s operating area on a Red, Amber, Green assessment basis. Part of these investigations includes ensuring that the EDM has been installed in the most representative location to provide accurate reporting.

EVENT DURATION MONITORING – DATA

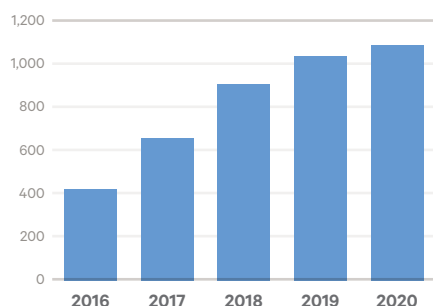
The main driver of storm overflow performance is weather.

Over recent years we have seen more intense rainfall events and more prolonged periods of wet weather – the impacts of which do not show up well in simple annual or seasonal rainfall totals.

This is because a relatively ‘dry’ month could have a number of very heavy short storms within it, or conversely a month with no major storms could have low level rainfall for a lot of the time such that drainage systems and storage remain full.

To understand this better we are currently working with meteorological consultants to obtain a more granular view of weather impacts on our combined network and will report back on this and use it as part of our overflow assessments with the Environment Agency.

Reportable EDMs
(number per reporting year)



DID YOU KNOW?

February 2020 was the UK’s wettest February since records began in 1862. England, Wales and Northern Ireland all saw their wettest February on record, with Scotland seeing it’s second wettest.

Overall, the UK had 209.1mm of rain which is 237% of the average for February. This exceeds the previous record of 193.4mm set in February 1990.

The 2020 EDM data

The data for 2020 shows an increase in both the number of operations per storm overflow and the average duration of overflows, to that recorded in 2019. Much of this can be attributed to rainfall, with the 2019/20 winter period recorded as the fifth wettest in history.

The number of discharges with event duration monitoring has increased over the last three years; these are mainly inland installations. New EDM installations for the 2015 to 2020 investment period were delivered from late 2018 to early 2020. The more EDMs installed the greater the number of overflows recorded.

The data for 2020 also indicates some reduced EDM availability during the year. This is a result of installing battery powered outstations for some of the new EDMs delivered over the last 3 years. Due to our geographical location there were problems with signal coverage which caused the batteries to drain prematurely which resulted in a loss of data communication. The later part of 2020 and early 2021 saw the upgrade of these battery powered outstations to 4G coupled with a firmware upgrade and we expect 2021 will see a marked improvement in these numbers. For the installations due in the next few years mains powered will be the preferred method and the battery powered solution will only be used where costs for mains power are excessive.

The storm overflow numbers are a trigger to investigate. Under the Storm Overflow Assessment Framework introduced in 2020 we, like all water companies, will be investigating any storm overflows that operate more than 40 times in a calendar year. For any Shellfish or Bathing Water assets that have been previously improved to reduce overflow frequency the Spill Frequency Trigger Permits (SFTP) clause will trigger an investigation and will require all water companies to reduce the overflow numbers to meet the default number. The limits are 14 overflows per calendar year for Shellfish assets, and five per bathing season for Bathing Water assets, as 10 year averages.

EVENT DURATION MONITORING – DATA REPORTING

EDM data provides valuable information that enables South West Water to understand the sewer performance and helps the Environment Agency to ensure that sewerage systems are compliant with relevant legislation.

Our 2020 EDM data can be found at this address: southwestwater.co.uk/edm-return-2020

EDM data also improves the visibility of the performance of the sewerage network to third parties including the public.

Summarised reports are consistently produced by South West Water, and reported to the Environment Agency on an annual basis (and seasonally for Bathing Waters) with the date/time duration of each overflow. Written reports on individual events are also provided at the request of the Environment Agency.

All overflows are included in the annual return which covers the period 1 January to 31 December inclusive; this is submitted by the end of February. This return includes the total number of overflows (12/24hr counts) and the total duration, and the percentage of the year the EDM was operational.

Those storm overflows that have the potential to affect Bathing Waters also have a seasonal return covering the period 1 May to 30 September inclusive and this is submitted by 31 October. The data from this return can be used to help determine Bathing Water classifications.

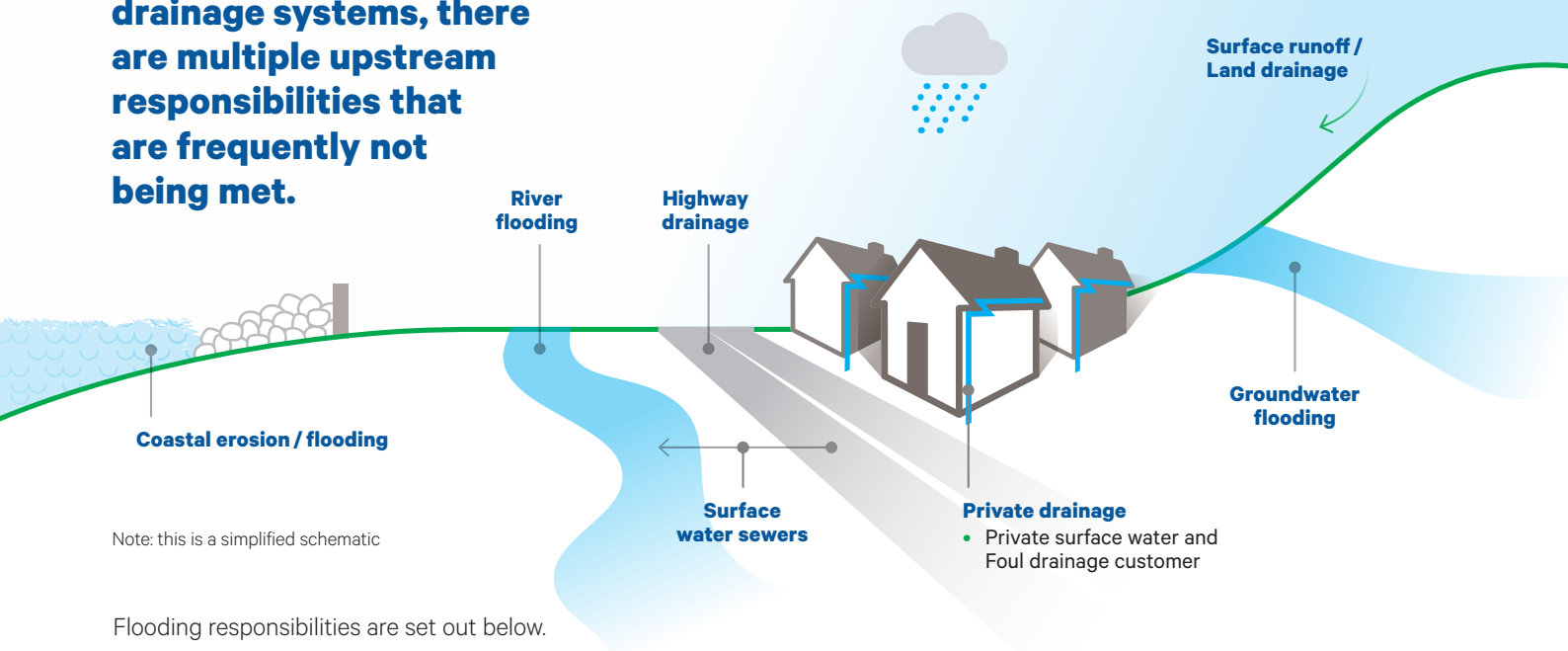
For Shellfish Waters the annual written report is also sent to the Local Food Authority (LFA) and the Environmental Health Officer (EHO). In some cases notifications of overflows affecting Shellfish Waters are required and made to the LFA, EHO and Environment Agency within 24 hours to help protect the quality of shellfish.



DRAINAGE RESPONSIBILITIES

It is important to remember that, whilst water companies are often at the end of drainage systems, there are multiple upstream responsibilities that are frequently not being met.

These include private drainage problems, highways drainage problems and rural run-off and riverine flooding contributing to inundation of our systems.



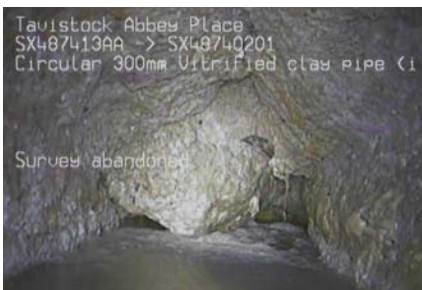
Flooding responsibilities are set out below.

Location	Description	Responsibility
Surface runoff / Land drainage	Landowners are responsible for their land drainage and must not cause problems for neighbours	<ul style="list-style-type: none"> • Lead Local Flood Authorities • Land owners
Highways	Surface water on roads, highways and pavements, blocked road drains/gullies and overgrown verges	<ul style="list-style-type: none"> • Highways Authorities • Highways England / Welsh Government • Transport for London
Groundwater	Waterlogged ground when water pools on the surface	<ul style="list-style-type: none"> • Lead Local Flood Authorities • Landowner
Rivers and watercourses	Water draining into rivers and streams from nearby land	<ul style="list-style-type: none"> • Lead Local Flood Authorities • Environment Agency / Natural Resources Wales • Riparian Owners • Landowner
Coastal / Tidal	Rough seas, high tides or storm inundation on lower land	<ul style="list-style-type: none"> • Local Authorities • Environment Agency • Natural Resources Wales
Surface water sewers	Most properties drain rainfall to public sewer, including flows from gutters/roads that end up in public sewers. Highway drainage is provided for rainfall onto the highway but in reality also includes water from fields/other property that finds its way onto the highway	<ul style="list-style-type: none"> • Water and wastewater companies • Local Authorities • Housing Associations • Private land owners • Highway Authorities
Public sewers	Sewer flooding from manholes and covers	<ul style="list-style-type: none"> • Water and wastewater companies
Private sewers	Flooding from cesspits/septic tanks, toilets or internal drains	<ul style="list-style-type: none"> • Homeowner



Find out more here:

southwestwater.co.uk/loveyourloo
southwestwater.co.uk/thinksink



CCTV survey showing fat build up in a sewer

As well as rainfall, groundwater infiltration is a factor. There are times and locations where groundwater levels can become higher than sewers and drains and groundwater enters the sewers. In the South West this can also occur in coastal areas due to sea water infiltration (tidal ingress). Tidal ingress may cause some storm overflows to operate for longer periods, but is mainly just sea water going in and out past the monitor.

Partnerships and some regulatory change are required to manage complex drainage matters sustainably in light of climate change. There is no obvious alternative to storm overflows without huge infrastructure investment and disruption to remove rainwater from the combined sewer system. Any infrastructure-based solutions would be a massive undertaking and likely require a significant increase in bills not to mention huge disruption caused by the need to dig up hundreds of kilometres of sewers mainly located under roads. However, in light of the changing climate and increased extremes of rainfall events we have been pursuing catchment level solutions to keep clean rainwater out of the combined sewer system and minimise the need for storm overflows to operate – this needs some regulatory change and effective partnerships to become the norm.

We do all have a part to play in improving how we use our sewer system.

Storm overflows can discharge through misuse of the system. Wet wipes make up more than 90% of the material causing sewers to block.

South West Water has launched the **'Love Your Loo'** and **'Think Sink'** campaigns to bring awareness to this issue.

We actively encourage everyone to love their loo by only flushing pee, paper and poo. Inappropriately flushing baby wipes, hygiene wipes, cleaning wipes, cleansing pads and sanitary products contribute to 8,500 blocked sewers a year, which costs about £4.5million a year and adds to bills. Whilst the 'Think Sink' campaign for businesses aims to remind food service establishments of their responsibilities regarding the proper disposal of fat, oil, grease (FOG) and food waste. Blocked sewers can cause flooding and premature operation of storm overflows.

By keeping our sewers free of wet wipes and other sanitary products as well as ensuring fats, oils and grease are not poured down the sink, we can help reduce frequency of storm overflows operating.

INVESTING TO IMPROVE OUR ENVIRONMENT

Since 1989 South West Water has invested more than £7 billion to transform services and protect the environment. As a result, the region now has some of the cleanest Bathing Waters in Europe.

Furthermore, in the past five years, we have successfully reduced sewer flooding and blockages, achieved best-ever wastewater treatment standards, and made year-on-year progress in reducing the number of serious pollution incidents (down to one in 2019). During the same period, we also met all of our regulatory obligations on river water quality within the National Environment Programme – resulting in improvements to 659km of rivers.

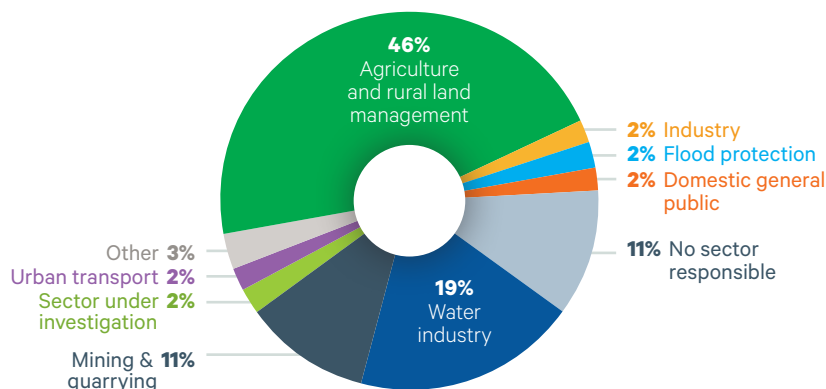
Like all water and wastewater companies, our investment programme and operational practices are required to adhere to strict regulatory controls, as set out by the Environment Agency. To safeguard river water quality and its associated wildlife we aim to ensure the wastewater we return to the environment is treated to the required standards. Storm water overflows, like all our discharges to the environment, are permitted by the Environment Agency who set the operational parameters to help protect receiving water quality.

Since 1989 we have improved over 298 stormwater overflows to Bathing Waters and 382 to Shellfish Waters, by adding more than 222,100 cubic metres of additional stormwater storage built at a cost of over £100million. We have also invested significantly to install event and duration monitors on our intermittent discharges. Over 70% of our stormwater overflows are now monitored, and in the next five-year period we will be installing or upgrading EDM at a further 134 sites.

Additionally, our wastewater treatment processes have ultra violet disinfection for 70.8% of the population served by South West Water. Whilst wastewater is only one factor influencing Bathing Water quality, the combined impacts of this investment has helped achieve great Bathing Water quality in the South West.

South West Water have also invested heavily in improving the river water quality in the South West. The main measure of river water quality is the Environment Agency’s assessment of Water Framework Directive compliance. The WFD data shows the overall compliance but also what sectors are contributing to not achieving ‘Good’ status.

Reasons for not achieving ‘Good’ status in the South West Water area



The South West river basin WFD data can be found here: <http://environment.data.gov.uk/catchment-planning/RiverBasinDistrict/8>

DID YOU KNOW?

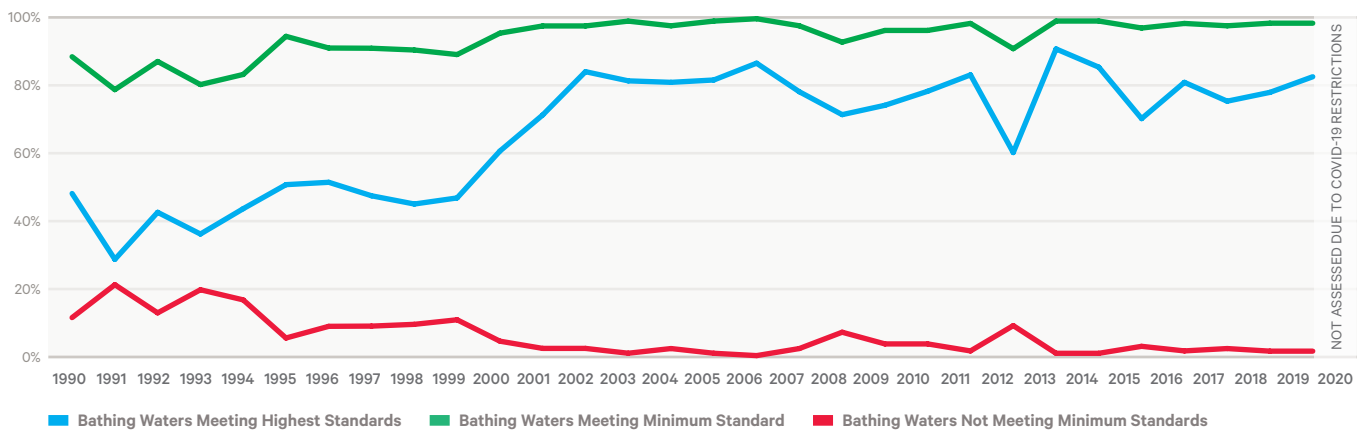
Less than 1% of the water industry impact on ‘Good’ status is attributed to intermittent storm discharges.

Nationally, we are also supporting greater use of Sustainable Drainage Systems (SuDS) by the Government and housebuilders. SuDS use natural features like ponds and swales to absorb rainwater, which reduces the amount of water entering our sewers during storms and means storm overflows will operate less often.

Water companies have helped protect and improve 15,000km of rivers since 1995 by investing £25 billion in environmental work – and plan to improve a further 8,000km of rivers and waterways by 2025.

The water industry, through Water UK, is playing a leading role in Defra’s Storm Overflow Taskforce. In January 2021 the Taskforce agreed a new objective to prevent damage from storm overflows.

Bathing Waters: Performance 1990 - 2019



Bathing Waters – Plymouth, Devon

WHAT ARE WE DOING FOR THE FUTURE

- Our programme for 2020-25 (AMP7) includes:
 - **£50m** of investment and investigations for improving Bathing Waters
 - **£23m** for Shellfish Waters
 - **£8m** to specifically improve high frequency discharges to Shellfish and Bathing Waters
 - **£3.5m** of accelerated Green Recovery investment to investigate improvements on inland discharges to rivers and streams (with the latter pending funding approval coming from Defra/Ofwat).
- Our AMP7 investment already includes undertaking new SOAF assessments, and identifying areas for improvement of storm discharge performance. **Investigations are shared with the Environment Agency to create new investment drivers where improvements are beneficial.**
- We are engaged with our regulators on legislative change as a **member of the Storm Overflows Taskforce.**
- **We have recently put forward Green Recovery acceleration plans to the Government and regulators**, to increase monitoring of our network and improve management, performance and understanding of storm overflows through investigation and work to reduce storm overflows. If the Green Recovery Initiative is accepted, then all storm and emergency discharges will have EDM by 2025, bringing the total to c.1,606 reportable EDMs.



- **Our ‘Downstream Thinking’ catchment management programme seeks to reduce sewer flooding risk and storm overflows discharges** through the application of sustainable drainage schemes and wider landscape management.
- Partnership is key to resolving catchment drainage issues and **we are developing Drainage and Wastewater Management Plans for our whole region** to better enable joined-up solutions.
- **We have put in place a new EDM and flow team**, and enhanced performance monitoring will be established to review overflow event numbers and to quickly identify potential issues to operations and asset management.
- **We are trialling a new software system and service** called Meniscus that allows EDM data to be used much more proactively to identify issues on the wastewater network that are unexpected.

River Dart, Devon



