



**South West  
Water**

# **Pollution Incident Reduction Plan**

Proposals for  
Consultation



[southwestwater.co.uk](http://southwestwater.co.uk)

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**WHAT DO  
YOU THINK?**



We'd like to hear your views on our plan. We are inviting responses to this document until 17 March 2020.

We have included questions at the end of each numbered section and on page 28. You can share your views by filling in this document or by answering the questions in our template which can be found [here](#). Once completed, please email your answers to [pollutionsconsultation@southwestwater.co.uk](mailto:pollutionsconsultation@southwestwater.co.uk)

**Our Pollution Incident Reduction Plan** for 2020-25 will be published by 31st March 2020 and will set out in detail how we will deliver significant reduction in the number of pollution incidents.

We continue to work tirelessly to improve our pollution performance and have implemented a range of initiatives during the 2015-20 period. As part of the 2019 Price Review Process we consulted widely with customers and stakeholders in the development of our 2020-25 business plan, including how we will tackle pollution. This document contains more details on those plans.

We want to hear your views ahead of finalising our detailed Pollution Incident Reduction Plan, so that we can build on our existing understanding from our extensive research and ongoing work with key stakeholders.

In this document we set out the key areas where we believe we can drive sustained improvement to our performance and minimise our impact on the environment.



## Our region

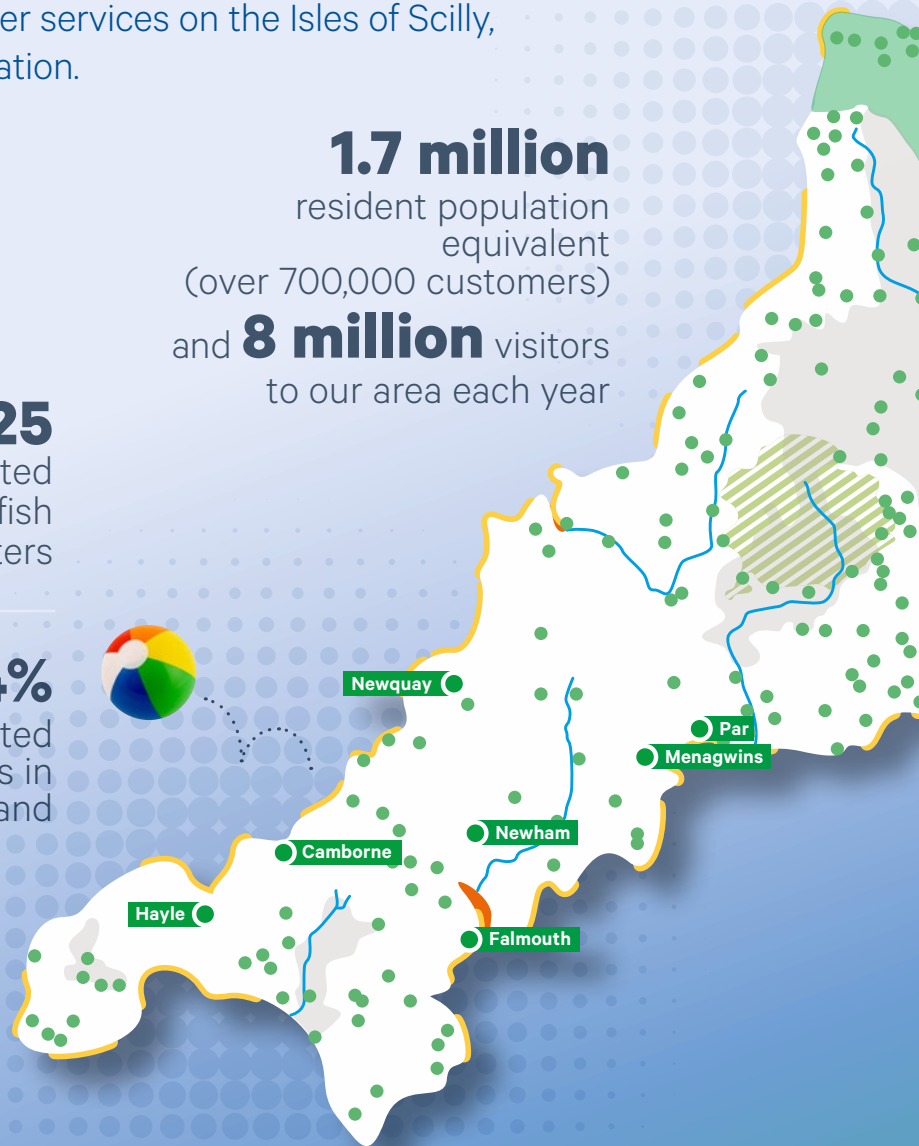
**South West Water** is the water and wastewater service provider for Cornwall, Devon and parts of Dorset and Somerset. We also provide water services to Bournemouth Water customers in parts of Dorset, Hampshire and Wiltshire. More recently, we have agreed with Government, and with support from our existing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

**1.7 million**  
resident population  
equivalent  
(over 700,000 customers)  
and **8 million** visitors  
to our area each year



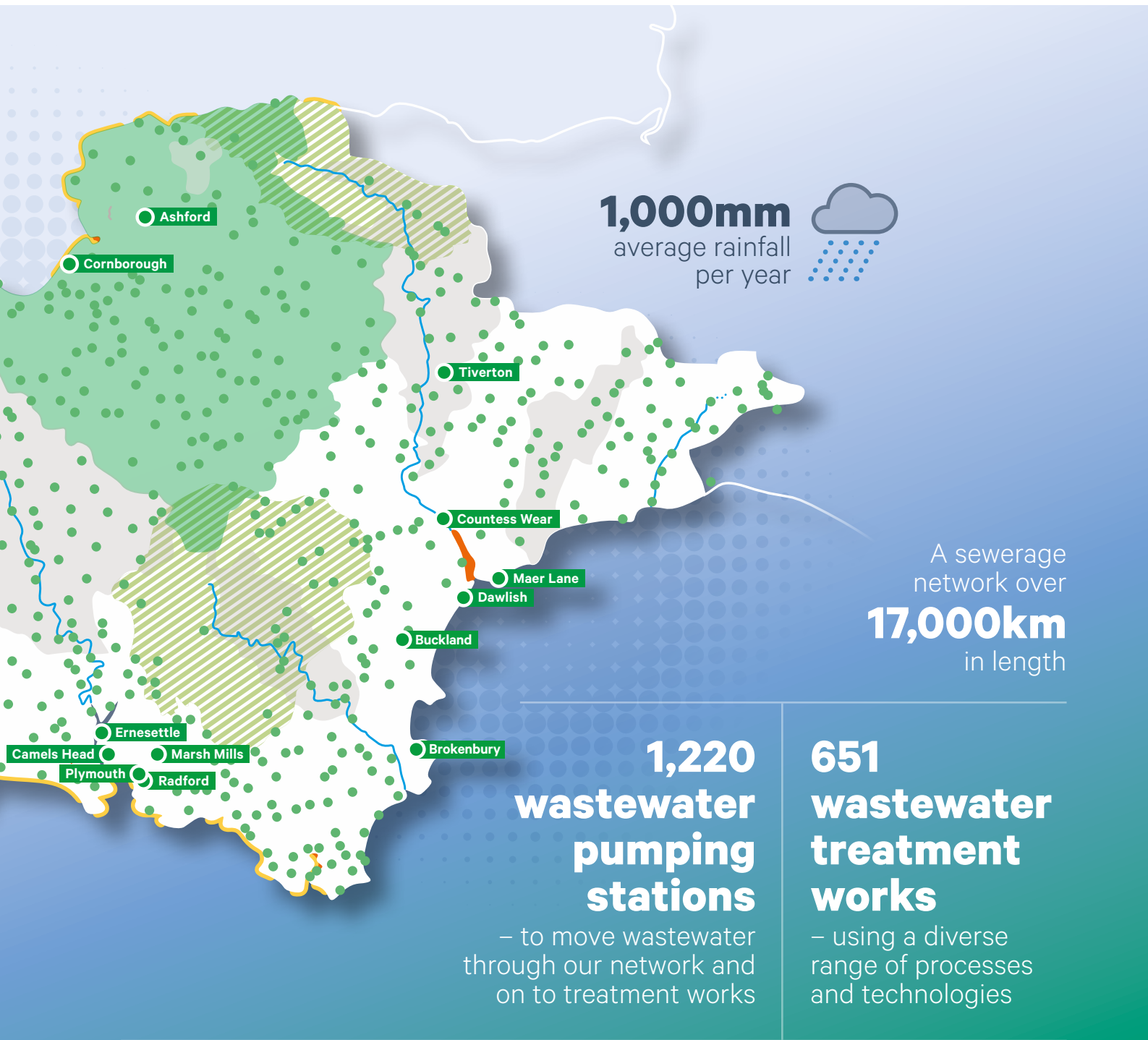
**25**  
designated  
Shellfish  
Waters

**34%**  
of all the designated  
Bathing Waters in  
England



Isles of Scilly

- Wastewater Treatment Works
- Biosphere reserve
- National parks
- Shellfish
- Bathing Waters
- Rivers



Provision of ultra violet disinfection or membrane filtration at  
**more than 65 wastewater sites**  
to protect bathing and shellfish waters to the highest standards



# Background

## Our Pollution Incident Reduction Plan

proposals summarise the key areas we think are important to drive significant reductions in the numbers of pollutions arising from our activities over the 2020-25 period.

## Progress and performance during 2015-20

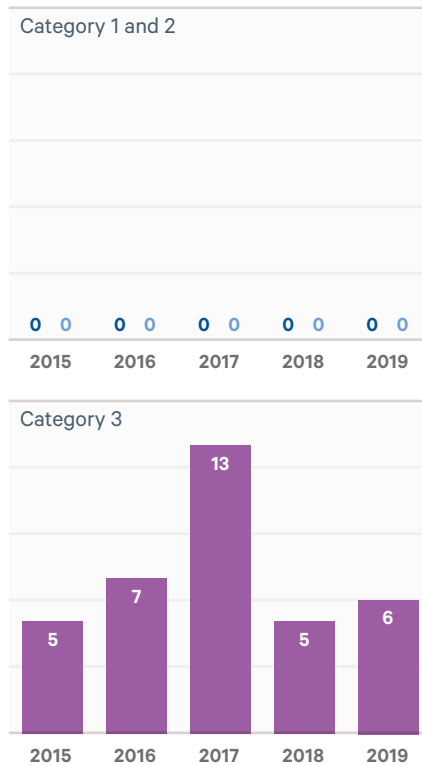
We have made some significant progress in a number of areas of our pollutions performance during 2015-20. For the most serious Category 1 and 2 pollutions, which have the most impact on the local environment, our record is now amongst the best in the industry. In 2019 we had only one potential pollution\* in these categories. This represents a significant improvement in our performance, reflecting our efforts and focus in this area.

We have also taken significant strides in our self reporting performance, which is a key indicator of the awareness of our teams and a reflection of the cultural journey we have embarked on.

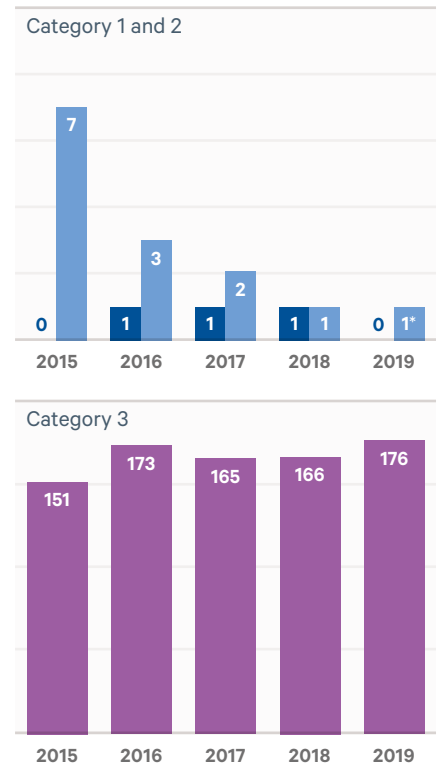
Whilst these areas of performance are positive, we acknowledge that we have more to do to tackle minor, less serious pollutions (Category 3) and our efforts have been increasingly focused on these following our success in eliminating more serious incidents. Recognising this remaining challenge, we implemented the first phase of our pollutions reduction strategy in 2018/19, targeting investment in key areas such as improved business processes and procedures, new assets, customer awareness, data modelling and enhanced maintenance. We made some encouraging initial progress in the early phase of this strategy but it has not delivered the overall desired impact and we are disappointed with our progress. We understand the importance our customers place on our performance in this area and the criticism from our regulators, and have set ourselves challenging targets for the 2020-25 period to deliver a step-change in our performance.

Pollution Category	Impact
1	MAJOR, SERIOUS, PERSISTENT and/or EXTENSIVE impact or effect on the environment, people and/or property
2	SIGNIFICANT impact or effect on the environment, people and/or property
3	MINOR or MINIMAL impact or effect on the environment, people and/or property

Drinking water pollution incidents (number)



Wastewater pollution incidents (number)

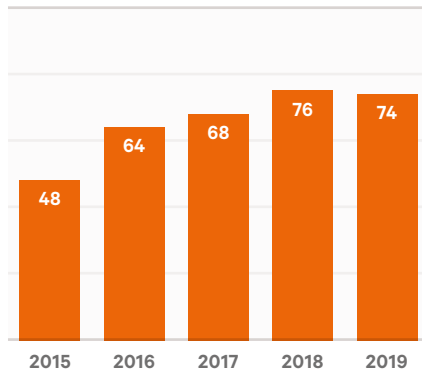


\* This year end position is being confirmed with the Environment Agency, and we are querying the single Category 2 classification.

Our self-reporting performance has improved between 2015 and 2019

**48% → 74%**

Self reporting – Category 1-3 (%)



### Plans for 2020-25

The South West Water business plan for 2020-25 has carefully considered the needs of our customers, the environment and our business and has set stretching and challenging improvements to customer service and environmental performance. We have developed and reviewed the plan through external stakeholder engagement, scrutiny and challenge. We consider the plan to be balanced on affordability and reflects our risks to deliver the needs of the business over the 2020-25 period. Our business plan meets all the expectations and statutory obligations sought within the Water Industry Strategic Environmental Requirements (WISER) required by the Environment Agency and Natural England.

We have committed to the following improvements under the WISER programme:

- Stable asset reliability
- Water Industry National Environment Programme (WINEP) improvements
- 100% wastewater compliance
- Zero serious pollutions (Category 1 and 2)
- Over 80% reduction in less serious pollutions (Category 3)
- 80% self reporting of pollutions, 90% at wastewater treatment works
- New investment in the Isles of Scilly to improve standards.



**Our aim is to be an industry leader in protecting the environment by ensuring we deliver our services in the most sustainable way possible.**

We aim to enhance our environment where we are able to, and minimise the environmental effects and impacts of providing our essential services to the communities we serve. We place a very high value on the environment and the natural beauty of the region within which we live and operate.

One of the key areas that we want to improve is around pollution incidents that happen on the network of sewerage pipes that move wastewater from customers' homes to our wastewater treatment works. These pollution incidents occur when wastewater and/or storm water is released unintentionally from our wastewater infrastructure and which can impact rivers and coastal waters. As our sewerage system is spread out over a large area, due to the rural nature of our region, it can be a challenge to identify and respond quickly enough to potential pollution.

**Regardless of these factors, we can and will do better.**

We aim to reduce our serious (Category 1 and 2) incidents to zero and significantly reduce our Category 3 (minor) incidents, Our Pollution Incident Reduction Plan is designed to achieve this goal.

## Our targets and aspiration

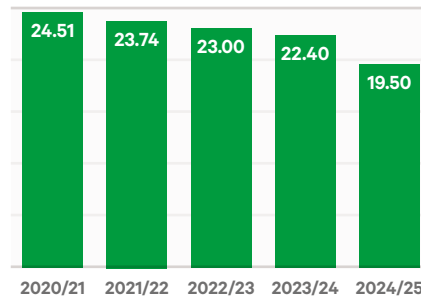
**Our long term vision to 2050 is to be the industry leader in minimising Category 3 pollutions and to eliminate harmful (Category 1 and 2) pollutions altogether.**

Our formal targets for delivering reductions in the numbers of pollutions over the next five-year period from 2020-25 are set out in the final determination of our business plan. These are in line with our long term vision and require a step change in our current performance.

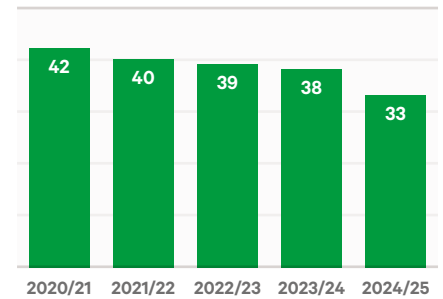
### Final Determination targets

The South West Water 2020-25 Business Plan includes the following targets for pollutions and our wider environmental performance:

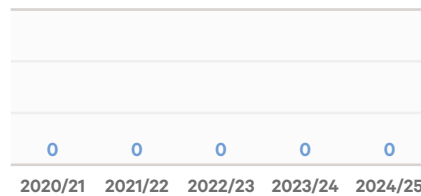
**Wastewater Pollution Incidents – Cat 1-3**  
(per 10,000km of sewer)



**Wastewater Pollution Incidents – Cat 1-3**  
(number of events)



**Water Pollution Incidents – Cat 1-3**  
(number of events)



**Environmental Performance Assessment**  
(star rating)



Should the company not deliver against the targets set out in the above tables then financial penalties will be applied under the outcome delivery incentive (ODI) framework.

Additionally, our performance in respect of serious pollutions and our level of self reporting will be reflected in the star rating applied to companies through the Environment Agency annual Environmental Performance Assessment (EPA). EPA performance is also the subject of penalties under the ODI framework should the targeted ratings not be achieved.



## Our targets and aspiration

continued

### WISER comparison

Our 2020-25 business plan seeks to carefully balance the needs of our customers, the environment and our business and includes stretching improvements to service and environmental performance. The plan also meets all the expectations and statutory obligations set out in the WISER document published by the Environment Agency and Natural England.

A summary of the WISER requirements and how our plans address them is shown below:

WISER requirement	SWW Business Plan for 2020-25
Serious pollution incidents must continue to trend towards zero.	→ We will continue our Pollution Reduction Strategy throughout 2020-25 and are targeting zero serious pollution incidents throughout the period.
Trend to minimise all pollution incidents (Category 1-3) by 2025. There should be at least a 40% reduction compared to numbers of incidents recorded in 2016.	→ We intend to minimise all pollution incidents and are annually targeting no more than 33 Cat 1-3 pollutions by 2025 (more than an 80% reduction from our performance in 2019).
High levels of self-reporting of pollution incidents with at least 80 per cent of incidents self-reported by 2025. More than 90% of incidents self-reported for wastewater treatment works and pumping stations.	→ We continue to improve in our self-reporting and will endeavour to achieve at least 80% by 2025. We will also target more than 90% self-reporting for pollutions that occur at wastewater treatment works and pumping stations.

### Customer consultation

We consulted widely with our customers in the development of our plans and for the 2019 Price Review, completing our most comprehensive consultation ever. This has ensured that we clearly understand the priorities of all our stakeholders and customers, and are confident that our plans balance those priorities whilst maintaining affordability. It is important that we continue to engage with our stakeholders to ensure our plans continue to reflect their expectations and priorities and this document seeks to continue that process.

Our PR19 research shows that our customers attach a high importance to the environment and they expect us to protect it at all times. Their top priorities are for us to deliver a safe and clean drinking water supply, protect bathing and shellfish waters, prevent pollution, ensure sewer resilience in extreme conditions and deliver reductions in sewer flooding. They expect us to meet our legislative requirements and, at the same time, meet their performance expectations in these areas.

Our PR19 customer research findings indicate continuing strong support to reduce bacteria and viruses from treated sewage entering the coastal waters, including ensuring the sewerage system can cope with heavy rainfall, and preventing pollution to rivers and bathing waters. Preventing pollutions remains a top priority compared to other areas of activity, as was the case during our 2014 Price Review research.

Customer groups also demonstrated high levels of willingness to pay for investment in the priority areas of protection and enhancement of the environment and reducing pollution incidents.

Our long-term tracking supports these findings, and shows a slight decline in satisfaction with our wastewater services. Customers are concerned there is a growing risk of flooding from changing weather patterns; they are increasingly intolerant of pollution; and are acutely aware of the impact our wastewater operations and services have on recreation and tourism.

### Step change delivery

We understand that our current performance position in respect of minor pollutions (Category 3) is not where it should be and that a step change in our performance is needed if we are to achieve or outperform our 2020-25 targets. To achieve this we are fast-tracking elements of our reduction plan and establishing a dedicated task force to accelerate the required progress in our performance. A summary of our Pollution Incident Reduction Plan is shown on the next page. This includes our continuing actions and our proposed new activities.

## Our plan

### Highlights

**In this plan we describe our continuing pollution reduction actions and those we are intending to implement in the future:**

#### Our continuing actions

We have implemented an **accelerated pollution plan** recognising our performance for minor pollutions is not where we targeted at this point in time. We are also advancing a number of actions to help achieve our 2020-25 targets. Specifically, this includes:

- **A pollutions task force** to manage the actions within our fast track plan, led by our Director of Networks and Customer Services
- **Significant increases in resources** for sewer cleansing and pumping station inspection/maintenance
- **Strengthening our incident response** capability.

#### Our future actions – where we would like to hear your views

- We will deliver better **root cause analysis**, prediction, monitoring and reporting to reduce pollution events.
- We are developing **asset specific plans** for treatment works, networks, pumping stations and drinking water operations. We will also plan and deliver action on a catchment basis to ensure we get the full benefit from these plans.
- We are **enhancing our campaigns** to reduce blockages from incorrect use of the sewer by customers and businesses.
- We are driving a **culture change** for zero tolerance of pollution and increased innovation and collaboration.



# 1 ACCELERATED POLLUTION IMPROVEMENTS

**We have been successful in reducing serious pollution incidents to very low levels, but some of the actions we have taken have not delivered the full benefit we anticipated for reducing minor pollutions.**

In preparing our pollution reduction plan we have evaluated all the actions we have done so that we can continue those that work, but also identified what is needed to make them more effective. These accelerated actions are described in this section for your information.

We would welcome your views on the new and additional activities described in the subsequent sections.

**We are committed to a rapid response to improve our minor pollutions quickly, so we are advancing a number of our proposed actions in order to achieve our 2020-25 targets.**

**A pollutions task force has been set up to manage the actions within our accelerated plan which will be led by our Director of Networks and Customer Services.**

We have identified the need to enhance the structures within our organisation to ensure dedicated focus on pollutions – the process has started to increase the number of frontline pumping station managers to specifically tackle this issue.

Also, for pumping stations we are enhancing the number of crews available to carry out our vacuum tanker sewer cleansing programme. We are redirecting our resources which will enable a significant increase in pump station proactive cleaning activity.

On our wastewater networks we are enhancing the number of crews involved in network activities through our supply chain by redirecting our resources. Additional resource in this area will target further proactive network cleansing to drive down pollutions in our highest-risk areas.

We want to prevent pollutions, however when they do occur we need to ensure we have the best possible response in place. We are immediately strengthening our incident response capability by ensuring additional senior oversight and control of any pollution event or potential pollution event.



# 2 IMPROVING OUR POLLUTION REPORTING AND ASSESSMENT

**There is a requirement on water companies to report pollutions in line with Environment Agency guidance.** Most crucially, identification and reporting of pollutions (and potential pollution) in a timely and accurate manner is vital to determining the best course of action to either prevent or mitigate environmental damage.

## Current systems and reporting

Over recent years we have improved:

- Our self-reporting of pollutions from 48 % in 2015 to 74% in 2019 (subject to final confirmation)
- Our method to capture information and provide details to the Environment Agency on a timely basis and to a mutually agreed process
- The way we evaluate the amount of environmental damage caused by a pollution, as the event is live through use of a specialist contractor (OHES). This helps support the decisions surrounding the best course of action during and subsequent to the event, but also helps the correct classification of the pollution.

### What we have done

We are improving and developing the tools that enable us to understand when pollution is occurring in real time and more importantly when pollution is about to occur so that we can intervene and prevent it. We will do this by improving how we handle alarms and how we develop our predictive analytical capability in our Service Support Centre.

### Future planned activities

We will create a 'pollution desk' to react to early warnings of pollutions or manage and coordinate a response should a pollution occur. One of the key roles of the desk would be to ensure the timely and accurate reporting of pollutions to responders and the Environment Agency.

## Improving site analysis and information

We have already improved the way we capture site information regarding pollutions through the use of a specialist environmental contractor (OHES) who attend pollutions to gather information regarding the impact on the environment.

### What we have done

We believe the activities carried out on our behalf by OHES are providing benefit and we are extending the current working arrangements to provide greater coverage into evenings and weekends.

### Future planned activities

We will also expand the activities and areas of focus of OHES, who also undertake a number of baseline surveys for us. We believe there is value in increasing activity in this area to support the understanding of impact should a pollution occur.

### Improving accuracy and self-reporting

We will continue to ensure that all teams involved in the pollution process recognise the importance of capturing accurate and timely information regarding a pollution or potential pollution. There are a wide range of people who can become involved in this process including contact centre staff, our frontline employees and our operational contractors.

#### What we have done

For our pumping stations and treatment works we will continue to make sure our alarms and telemetry systems provide us with information that allows us to see pollutions as they occur.

#### Future planned activities

We will work on developing the predictive analytics described earlier. These activities will help us improve our self-reporting.

For our sewerage network we will work with community and water user groups to help spot pollutions and report them to us. Direct reporting to South West Water speeds up our response.

As we develop our sewerage network intelligence capabilities through increased telemetry and modelling, we will be able to anticipate pollutions, report earlier and enable earlier interventions.

We will also develop mechanisms for the public to help report pollutions as soon as possible for example by putting more signs on outfalls from our assets with contact details of how to report issues arising with the asset.



## WHAT DO YOU THINK?

**Do you agree that developing better prediction capability is a high priority for reducing pollution?**

STRONGLY DISAGREE    DISAGREE    NEUTRAL    AGREE    STRONGLY AGREE

**Please explain why you feel that way**

## **We review all our pollution incidents to understand the assets and operations that they are related to and the root cause of each failure.**

We do this to ensure that we can deliver a timely solution and one that best prevents a repeat pollution in the same location. We also carefully track asset performance data to help inform where pollution strategy investment is best targeted. We have been developing our network intelligence monitoring capability for early detection of problems and are looking at how our existing digital tools and analytical capability can be enhanced to provide further insight to prevent pollutions before they occur.

### **Determining the root cause**

We have developed tools and processes that allow us to review the cause of pollutions across our asset base and across our internal departments. We have been able to successfully use the information we have gathered to date to inform and implement change in our processes. For example, our vactoring (vacuum equipped tankers) programme targeting the cleaning of pumping stations and our programme to fit anti-airlock devices came about as a result of the root cause analysis we carried out on our pumping stations.

#### **What we have done**

At the start of 2020 we developed a further enhancement to our root cause analysis tool that enables us to provide further granularity on the causes behind pollutions. This is already beginning to show a rich level of detail around pollutions that will enable us to tackle those pollutions that result from multiple root causes, whilst still providing a targeted approach to preventing repeat pollutions and spotting pollution trends.

#### **Future planned activities**

We will expand this area to analyse all events that could have led to a pollution, to ensure no area of learning opportunity is missed. We will ensure all lessons learnt from this process are quickly rolled out across the company.

### **Improving insights and targeting actions plans**

We have used information on prior pollutions to target our areas of intervention, for example on our networks we have developed a successful Maintenance and Operational Sewerage Strategy programme (MOSS). MOSS targets hotspots for sewer cleansing and maintenance by looking at historical performance, risk and capacity of the network.

#### **What we have done**

We are developing our targeting programme further, in particular looking at how we can build detailed baseline information to understand the performance of our assets both from a pollution perspective and from their leading operational performance indicators. We recognise that pollution prevention often requires a number of activities or interventions simultaneously, and the development of strong baseline information will support the necessary coordination.

#### **Future planned activities**

We will expand our targeting of operational and investment responses based on a 'propensity to pollute' model, so that we identify those risky sewer sections and assets based on more than just a history of prior pollution. This area of work will become increasingly important as pollution numbers decrease overall.





## WHAT DO YOU THINK?

Do you agree that robust root cause analysis has an important role to play in reducing and preventing pollution?

STRONGLY DISAGREE    DISAGREE    NEUTRAL    AGREE    STRONGLY AGREE

Please explain why you feel that way

# 4

## CONTROL SYSTEMS AND EARLY WARNING

Our plan  
continued

**We recognise that strong operational performance is key to reducing pollutions.** As well as how we approach our day-to-day activity of maintaining assets, to ensure they are always operating correctly, we also need to be able to respond quickly with the appropriate solutions when a problem occurs. In addition, we have early warning systems in place to identify and respond so as to prevent pollution from occurring in the first place. This is delivered through control systems that are operated from our Service Support Centre.

### Telemetry and monitor coverage

#### What we have done

We rely on alarms on our assets to inform us of problems and we have programmes of work that check and ensure that we reliably get the signals and data that we need to manage our assets. We also carry out system upgrades and ensure that, as technology develops, we are upgrading the way in which we receive and use information. For example, we are currently upgrading to iSCADA – a tool that allows information to reach key decision-makers across the business as well as in our control centre.

We are also using weather data to a greater extent than ever before to manage our operational response to storm events. Our arrangements with providers of weather data help us forecast impact in our key operational areas. This activity is particularly important given the changing climate and propensity for more severe weather.

By the end of this five-year period we will have invested a further £6.1m to provide event and duration monitors (EDM) on our stormwater overflow discharges. These provide early warning of sewer overflow events to allow us to respond and mitigate any potential pollution impacts, as well as indicating how well our network is operating and being maintained. We have already installed EDMs at 1,034 of our stormwater overflow discharges. By April 2020 we will have provided EDM at an additional 109 sites, providing monitoring on over 70% of our stormwater overflows. In the next five-year period we will be installing EDM at a further 134 sites. This EDM network will enhance our ability to identify problems and target areas where we have the greatest pollution risk.

#### Future planned activities

We will expand our telemetry even further along with our analytical and modelling capability – we have already insourced modelling resource to facilitate our Drainage and Wastewater Management Planning and operational awareness. We are evaluating how proactive and predictive analytics can operate for all areas of wastewater network, pumping and treatment assets and looking at the types of monitors that will provide us the best value early warning information.

## Control room philosophy

### What we have done

Following the learning from the Freeze and Thaw event in 2018 we have enhanced the structure and operational processes within our Service Support Centre. We recognise that although most of our operational activity is delivered by our front-line operatives there is need to have control oversight and strong event management procedures. These response capabilities are vital to ensuring we deliver our commitments in all areas of the business, including how we manage and respond to pollutions.

We have strengthened our duty manager functions to ensure that we have 24/7 dedicated wastewater and drinking water coverage.

### Future planned activities

We are planning to develop further tools to log and manage our activities within our Service Support Centre that further enhance our procedures. We are already aligned to ISO31000 risk management processes and are constantly looking to improve how we control and manage activities across the company.

## Response and recovery

### What we have done

We have put significant effort into providing an excellent response and recovery in the event that a pollution does occur. Re-focussing our workforce, improved response times and an increase in the levels of equipment available to our teams, with technical support (through OHES) in assessing the impact of pollutions, have all been put in place over recent years.

### Future planned activities

We are looking to further increase our response capability to managing pollutions when they occur, following a principle of **'Think big, act early'**, and we are considering further expansion of our logistical support to manage to this principle.

We will ensure that recovery is more than just 'on the day' of any incident. The changes we plan through our approach to managing root cause will also enable a more permanent response to be put in place quicker than we have done previously.

## WHAT DO YOU THINK?

**Given the changing climate and more extreme weather, do you agree we should enhance our use of weather forecasting linked to pollution risk prediction and action planning?**

STRONGLY DISAGREE    DISAGREE    NEUTRAL    AGREE    STRONGLY AGREE

**Please explain why you feel that way**



**We have delivered a number of changes to the way in which we manage pollutions during 2015-20.** Where we have targeted specific activities we have often seen good results in isolation, but the overall number of pollutions over the period has not reduced. Going forward we believe we need to manage pollution reduction as an overall programme of work and at a catchment system level, but also ensure there are specific plans that align to the main asset types from which pollutions occur.

## Wastewater treatment works

### What we have done

We have a wide range of ongoing activities associated with wastewater treatment works compliance that we believe we also deliver reductions in pollution risk. We have trialled recognised best practice process improvement tools known as Lean and Reliability Centred Maintenance (LRCM).

Activities we will continue and expand include detailed annual specialist maintenance for key areas such as complex treatment processes and ensuring protection from power failure for our monitors and alarms.

A step change in this approach has been implemented for our 65 wastewater treatment works with ultra violet treatment processes, which carry both a compliance and pollution risk for short duration events.

### Future planned activities

We will introduce specific maintenance programmes to reduce pollution risk – focused on cleansing of inlet works, pumps and pipework. We are also introducing a training qualification for technicians and managers which will contain training on pollution risk and response. We plan to implement the LRCM process following the successful trials.

## Pumping Station

### What we have done

Our pumping station pollution performance has deteriorated in 2020 so we will be carrying out an overhaul of the way in which we approach our solutions to preventing pollutions. The interventions that have been put in place since 2017 have delivered improvements – for example, our vactoring programme showed a considerable benefit in the area it was first trialled. We know that the establishment of our internal pump workshops have sped up our time to repair assets. We now consider that for full pollution benefit to be realised we must target activity at a system level.

In 2019 we started a site based action plan targeting high consequence pumping stations. The benefits of this programme will be manifest over a slightly longer period, but we are already looking to expand the scope and increase the number of pumping stations we include in this programme.

### Future planned activities

The overhaul of our pumping station performance will be delivered by changes to the way in which we ensure 100% asset availability. This will be done through changes to operating procedures, the way we manage performance and by boosting the numbers of people directly involved in this area of the business.

## Sewerage Network

### What we have done

Pollutions coming from our sewerage network have decreased compared to our 2018 numbers. We increased investment in our sewer network and in 2017 started a targeted sewer cleaning programme (MOSS) to supplement our existing planned cleaning programme. We have been able to show that areas targeted by our MOSS programme have reduced overall pollution numbers to a larger extent than non-MOSS targeted areas.

### Future planned activities

We will expand how we use the proactive targeting cleans to further decrease pollution numbers. This will include MOSS but also other regular cleaning programmes that target sewer flooding and blockages, to optimise value across all areas. We will enhance our planning of work to ensure we optimise how we prioritise risks and maintain efficiency.

We will deliver new operating procedures to support the lessons learnt from the success of our MOSS programme. Our intention is to further segregate our planned from reactive activity. We will also boost the number of people targeting pollutions through these cleansing activities.

## Drinking Water

### What we have done

Our South West Water drinking water operation has an excellent track record of avoiding serious pollutions (Category 1-2). This has continued throughout the 2015-20 period with no serious events occurring. In respect of less serious (Category 3) pollution events, our performance has improved towards the end of the period. We had a steady reduction in events since 2017 and ended 2019 with only six events. In our Bournemouth operation there has similarly been no serious pollutions and less serious events have been kept to a minimum, with only two recorded during the 2015-20 period.

A range of initiatives have been implemented during the 2015-20 period to increase our focus on pollutions performance. We launched a training programme for our staff and suppliers, supported by the Environment Agency, to emphasise both the importance of preventing such incidents and techniques to ensure they do not occur, such as appropriately diverting flows from burst mains, utilisation of settlement tanks and where necessary, de-chlorination techniques. Improvement initiatives have been implemented and include:

- Environmental awareness campaign for all production and network staff
- Review of our pollution risk assessments at all of our production sites and implementation of new controls
- Modifications to a number of chemical storage systems
- Repair crews routinely using settlement tanks and de-chlorination equipment to avoid discharges in water courses.

### Future planned activities

During 2020-25 we will continue to drive many of the activities above but have additional plans to:

- Implement new pollutions risk escalation and management processes
- Establish a new 24hr process monitoring team who will provide proactive identification of potential pollution events
- Invest in additional network and process monitoring equipment and automation to allow remote, proactive monitoring and control of our operation
- Deploy more live mains repair technology which will lessen the impact of burst events and facilitate more effective management of mains water released from failed pipework
- Upgrade a number of water treatment works and improve their operation, including the complete replacement of two aged treatment works in the Bournemouth area.

## WHAT DO YOU THINK?

**Do you agree that our approach to establish asset specific plans for the different parts of our operation is correct?**

STRONGLY DISAGREE    DISAGREE    NEUTRAL    AGREE    STRONGLY AGREE

**Please explain why you feel that way**

**Do you agree that it's important to consider pollution reduction activities within a catchment context?**

STRONGLY DISAGREE    DISAGREE    NEUTRAL    AGREE    STRONGLY AGREE

**Please explain why you feel that way**

# 6 INFLUENCING CUSTOMER BEHAVIOUR

Our plan continued

**Blockages are a major factor in pollution incidents.** These are strongly influenced by customer behaviour as sewers can block when items such as plastic, wet wipes, nappies, cotton buds, fats, oils and greases are flushed from sinks and toilets. These issues account for 66% of blockages and frequently lead to pollutions. We have set a stretching target to reduce sewer blockages from over 8,000 per year now to 6,500 per year by 2025.



## Love your Loo

### What we have done

**Love Your Loo (LYL)** is our award-winning campaign, encouraging customers to only flush the 3Ps – pee, paper and poo. This work has delivered 10% blockage reductions in targeted catchments.

### Future planned activities

We will continue our campaign and improve targeting of activity informed by better actual and predicted blockage data.

One of the issues with this campaign is the longevity of impact. We will deliver a new activity to enhance the plan by conducting a research project to optimise the behavioural levers. This work will be undertaken in 2020/21 through the Centre for Resilience in Environment, Water and Waste (CREWW) – a partnership between South West Water and the University of Exeter – which was recently confirmed for £10 million co-funding from Research England.

Find out more at [southwestwater.co.uk/loveyourloo](https://southwestwater.co.uk/loveyourloo)



## Think Sink

### What we have done

**Think Sink** is a sister programme to LYL that promotes the safe use and disposal of Fats, Oils and Greases (FOG). FOG is a significant contribution to sewer blockages (21%) and subsequent pollutions.

### Future planned activities

We will continue our existing work to promote the 'Scrape, Collect, Wipe, Empty' messaging around domestic FOG.

We will optimise the behavioural levers of our messaging (through CREWW research aligned with that for LYL) and working with Local Authorities to promote redirection of FOG to existing food waste collection so the environmental benefits of energy recovery can be maximised and to further encourage the activity.

Find out more at [southwestwater.co.uk/thinksink](https://southwestwater.co.uk/thinksink)

## Commercial Fat Oils and Greases (FOG)

### What we have done

We have advisors who visit business premises and commercial kitchens to advise on best practice as regards FOG management, fat traps and legal responsibilities and this helps reduce commercial FOG in our sewer systems. We have recently completed 304 customer liaison visits.

### Future planned activities

We will continue our advisory activity, developing it by improving our communication plans and the targeting of advice visits. We have developed a new process for commercial FOG that covers visits, follow-ups, support, evidence collection and legal action (as a last resort). We will develop an even closer cooperation with Environmental Health Officers to deal with those businesses who have repeat non-compliances with their duties. We will also assess how we can work with local authorities to encourage commercial FOG collection for energy recovery.

## Misconnections

### What we have done

A misconnection is when a home or business has wrongly connected their plumbing into the surface water system, which eventually discharges into rivers or streams, instead of the public sewerage network where it is sent for treatment. This can happen when a building is extended, during home improvements or when a property is built. It can range from something as simple as a wrongly connected washing machine or dishwasher to something more serious such as toilet waste or even whole estates feeding into surface water drains. These misconnections can lead to pollutions from our wastewater network.

### Future planned activities

We will continue existing awareness messaging around misconnections and will intervene where we find problems.

We will start a new campaign to increase awareness about correct connections with customers and plumbers/builders. We will also significantly increase proactive identification of misconnections through additional surveys, modelling and collaborative work with the Environment Agency and local authorities.

## WHAT DO YOU THINK?

**Do you agree that our awareness campaigns on what should and shouldn't go into sinks and toilets are visible?**

STRONGLY DISAGREE    DISAGREE    NEUTRAL    AGREE    STRONGLY AGREE

**Please explain why you feel that way**

**Do you agree with the activities we plan to start on increasing awareness?**

STRONGLY DISAGREE    DISAGREE    NEUTRAL    AGREE    STRONGLY AGREE

**Please explain why you feel that way**

# 7 LEADERSHIP FOCUS - ZERO TOLERANCE TO POLLUTIONS

**We believe that while asset performance and operational response are key to delivering an enhanced pollutions performance, leadership focus and organisational culture are also critical.**

Given our current performance, and the stretch to achieve our business plan performance commitments and our longer-term ambition to drive out all pollutions, we will be placing a renewed emphasis on leadership focus and organisational culture.

## Focus on pollution reduction

### What we have done

We have a strong and consistent focus on pollutions reduction. We track our performance weekly, report formally through our internal governance structures monthly and to each Board meeting. Our performance commitments and ambition in relation to pollutions are shared widely within the organisation and are discussed with all relevant operational staff at each of our quarterly meetings.

### Future planned activities

We will continue to emphasise our performance commitments and ambition in relation to pollutions at all levels within the organisation, utilising our wide range of internal communications channels which include internal newsletters, emails, teleconferences and face-to-face briefings.

On reflection, we have focussed more through our internal communications on the commitments we have made in our business plans and to our regulators and stakeholders than we have on our longer-term ambition to drive out all pollutions. Going forward we will be stressing that our long term goal is to achieve zero pollutions.

## Delivering a culture change

Our dedicated employees are key to delivering the performance that our customers and stakeholders value and benefit from. Given the geography of our region, we rely on a dispersed workforce making good decisions and taking the right actions on a timely basis, day in and day out. We invest in their capability to do so. This includes winning hearts and minds and we have extensive experience in driving cultural change through our organisation. The most recent example is our leading-edge, organisation-wide 'HomeSafe' health, safety and wellbeing culture change programme which continues to be rolled out across South West Water and has already been successful in significantly improving our performance in this key area.



Key to the success of HomeSafe has been establishing the mindset within every person in the organisation that no activity is so important that it is worth taking risks with personal safety for, all accidents are preventable, and that we will achieve zero harm. We intend to build on the success of our deployment of HomeSafe to develop and deliver an equivalent programme for pollutions reduction with the aim of ensuring that all staff fully understand the impact of the pollutions, regard every single pollution as avoidable and act accordingly.





## WHAT DO YOU THINK?

**Do you agree that culture change is important for delivering significant pollution reduction?**

STRONGLY DISAGREE    DISAGREE    NEUTRAL    AGREE    STRONGLY AGREE

**Please explain why you feel that way**

**Do you agree with the culture change measures we propose?**

STRONGLY DISAGREE    DISAGREE    NEUTRAL    AGREE    STRONGLY AGREE

**Please explain why you feel that way**

# 8 INNOVATION AND COLLABORATION - CLOSING THE PERFORMANCE GAP

**There are upward pressures on pollution performance from factors such as climate change and population growth.** Consistently getting the basics of wastewater operations right remains a focus, but delivering a step change reduction in pollution numbers requires both innovation and collaboration. We have identified a need to seek wider input to our strategy from industry, our stakeholders and our supply-chain – this consultation is part of that.

## Benchmarking and ways of working

### What we have done

We have carried out a number of knowledge exchange and best practice visits with other water and sewerage companies (WASCs) as part of developing our pollution reductions strategy – this has identified a number of priority activities which are included in our proposals.

### Future planned activities

We plan to continue best practice exchanges with other WASCs.

We are considering whether to do more regular check-ins with wider stakeholders to inform and iterate our strategy and actions. Specifically, we would like to actively engage the Environment Agency in more regularly reviewing progress with our strategy, creating more opportunity to influence future iterations/actions and to offer awareness visits to see pollution reduction actions being delivered on the ground around our region. We would like to explore if secondments and/or job shadowing would help mutual understanding.

## Research and innovation

### What we have done

With the aim of better and earlier blockage detection we introduced the use of innovative SewerBatt technology – this has significantly helped with targeting cleansing activities. We are also delivering a project in cooperation with University of Exeter (UoE) and Innovate UK on Auto Recognition Software for CCTV surveys. This work has achieved a significant milestone – it can detect 80% of faults present (and classify 70%) by using artificial intelligence and machine learning techniques.

### Future planned activities

We plan to ‘operationalise’ existing research outputs and continue to develop them further.

We propose new research activities, including:

- ‘Big data’ analysis on pumping stations and the antecedent conditions of failure
- Geographical information system based risk assessment of pumping station location/topography, time and route to consequence and whether physical modifications (small banks/bunding) can increase time available to respond
- Rising main failure analysis to enhance our targeting of maintenance and renewal
- As covered in section six we also plan to conduct rapid research on optimising all our behavioural campaigns.



SewerBatt in operation

## WHAT DO YOU THINK?

**Do you agree that research and collaboration are important in reducing pollution?**

STRONGLY DISAGREE   DISAGREE   NEUTRAL   AGREE   STRONGLY AGREE

**Please explain why you feel that way**

**Do you agree with the activities we plan to start?**

STRONGLY DISAGREE   DISAGREE   NEUTRAL   AGREE   STRONGLY AGREE

**Please explain why you feel that way**

## Next steps

# WE'D LIKE TO HEAR YOUR VIEWS

We want to hear your views on these proposals ahead of finalising our detailed plan, so that we can build on our existing understanding from previous research and our ongoing work with key stakeholders. We would value your feedback by **5pm on 17 March 2020** so it can directly influence our detailed plan which will be published on our website by 31 March 2020.

South West Water will process any personal data received from stakeholders in connection with this consultation in accordance with our Privacy and Cookies Policy. For more information please see

[southwestwater.co.uk/waterfuture/business-plan-2020-2025/](https://southwestwater.co.uk/waterfuture/business-plan-2020-2025/)

## WHAT DO YOU THINK? OVERALL VIEWS

**Do you agree that we have the right balance between planned and reactive activities to prevent and reduce pollutions?**

STRONGLY DISAGREE   DISAGREE   NEUTRAL   AGREE   STRONGLY AGREE

**Please explain why you feel that way**

**Does our plan give you confidence that we have the right activities to reduce pollution?**

STRONGLY DISAGREE   DISAGREE   NEUTRAL   AGREE   STRONGLY AGREE

**Please explain why you feel that way**

**SUBMIT  
YOUR  
ANSWERS**

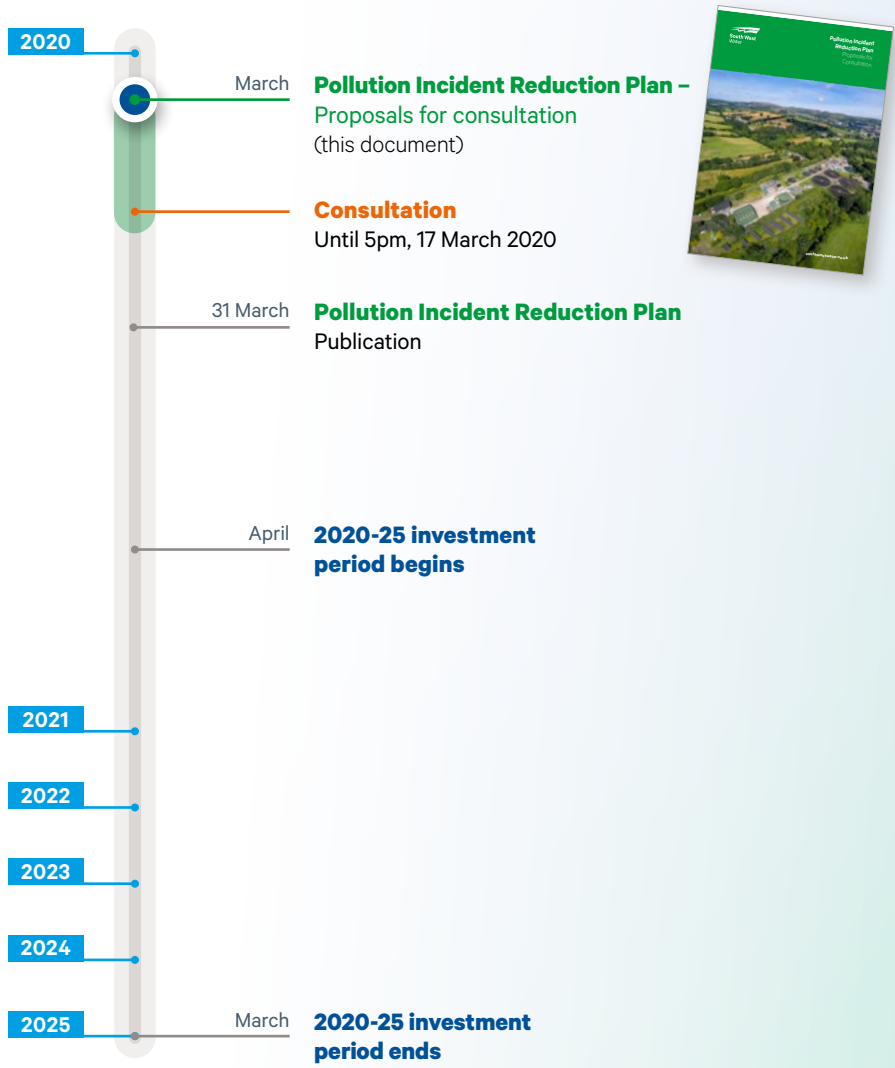


You can share your views by filling in this document or by answering the questions in our template which can be found **[here](#)**.

Once completed, please email your answers to **[pollutionsconsultation@southwestwater.co.uk](mailto:pollutionsconsultation@southwestwater.co.uk)**

**Next steps**  
continued

**Timeline for the development of our plan**



If you need to contact us about this consultation email:  
**[pollutionsconsultation@southwestwater.co.uk](mailto:pollutionsconsultation@southwestwater.co.uk)**



**South West  
Water**