



South West
Water

Pollution Incident Reduction Plan



southwestwater.co.uk

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Our Pollution Incident Reduction Plan

In 2018 we submitted our business plan to Ofwat setting out all our investment proposals and service levels for the period 2020-2025. As part of that process we consulted widely with customers and stakeholders on their view of our proposals and their preferences. Our business plan received fast track status from Ofwat, and South West Water was one of only three companies to achieve this high rating.

The 2020-2025 business plan set out our ambitious targets for reducing pollution incidents, and much of the investment that would bring that about. This document sets-out our detailed Pollution Incident Reduction Plan up to 2025 and brings together all the activities for reducing pollution incidents in one place. Further to the consultations undertaken for our business plan we also consulted with key stakeholders on our pollution reduction proposals. We used their feedback to produce the actions set-out here, and in the appendices we have summarised some of the key points made to us and how we have addressed those in our plan.

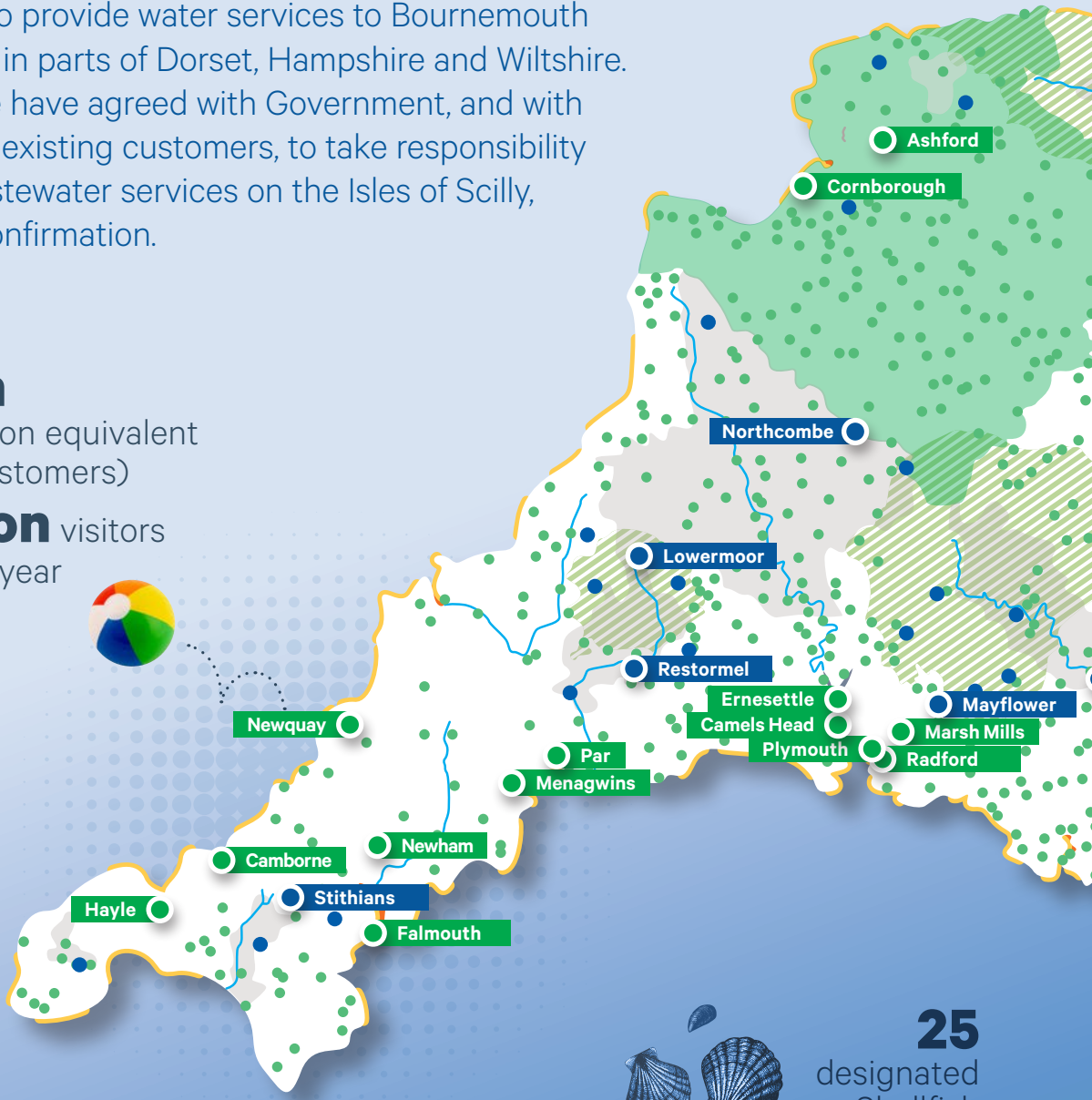
This document has been structured to give some context to our operations and our region, provide our pollution reduction targets, describe the actions we are accelerating to bring about earlier benefits and the areas of focus we now plan. Within these focus areas we have described what we have achieved to date as well as what we plan to start. Where it helps give clarity we have also included some case studies. Within the appendices we have provided the detailed action plan and timescales.

Our pollution incident reduction plan sets the context for our pollution reduction activities and actions, and we don't plan to update the full document. However, the detailed action plan in the appendix is a live document and will be updated as needed and at least annually.

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.

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

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

 St Mary's
Isles of Scilly

South West Water

Bournemouth Water

1,000mm
average rainfall
per year



34 water treatment works

18,000km of water pipes

315 service reservoirs

268 water pumping stations

A sewerage
network over
17,000km
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



Background

Our Pollution Incident Reduction Plan

summarises 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.

Our drinking water business has **not had a Category 1 or 2 incident since 2005**

| 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 |

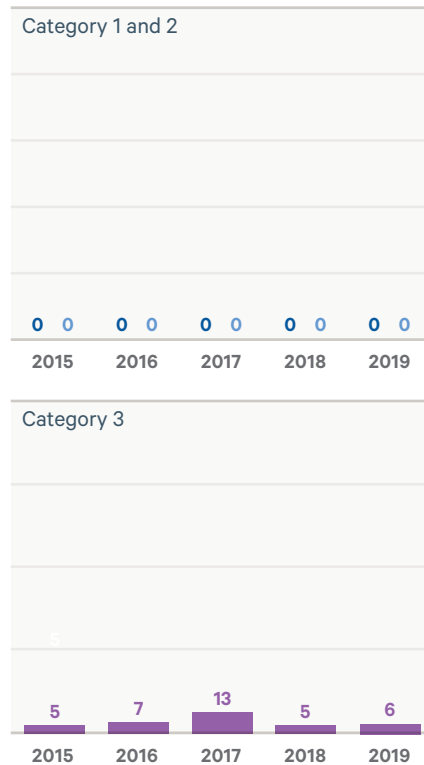
Progress and performance during 2015-20

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.

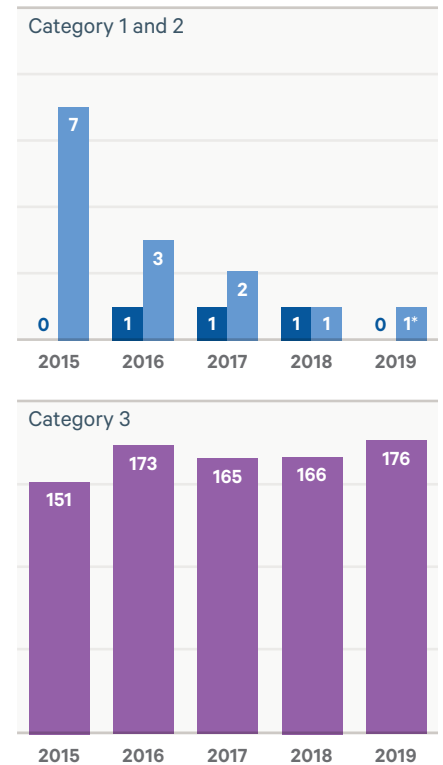
We have also taken significant strides in our self reporting performance, which is a key indicator of the awareness of our teams and a reflection of the cultural journey we have embarked on.

Whilst these areas of performance are positive, we acknowledge that we have more to do to tackle minor, less serious (Category 3) pollutions and our efforts have been increasingly focused on these following our success in reducing 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.

Drinking water pollution incidents (number)



Wastewater pollution incidents (number)

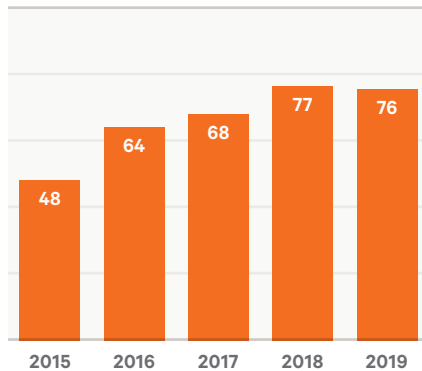


* This year end position is being confirmed with the Environment Agency, and we are querying the single Category 2 classification.

Our self-reporting performance has improved between 2015 and 2019

48% → 76%

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 risk 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

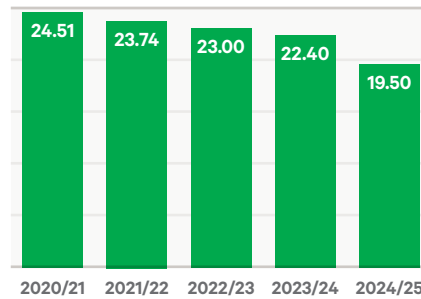
Our long term vision to 2050 is to be the industry leader in minimising Category 3 pollutions and to eliminate harmful (Category 1 and 2) pollutions altogether.

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.

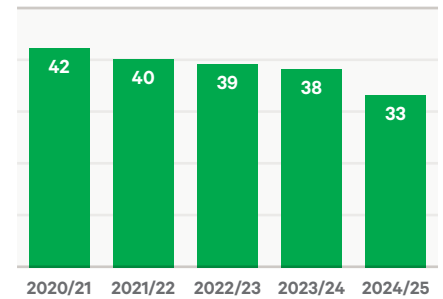
Final Determination targets

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

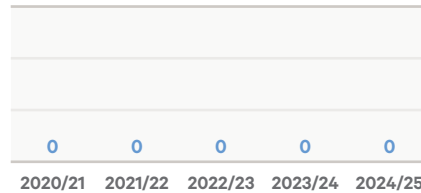
Wastewater Pollution Incidents – Cat 1-3
(per 10,000km of sewer)



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.

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.

Further to the consultations undertaken for our business plan we also consulted with key stakeholders on our pollution reduction proposals. We used their feedback to produce the detailed actions set-out here, and in the appendices we have summarised some of the key points made to us and how we have addressed those in our plan.

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 high level summary of our Pollution Incident Reduction Plan is shown on the next page. This includes our continuing actions and our proposed new activities.

Our new plan

Highlights

In this plan we describe the actions we are accelerating to bring about earlier benefits and the areas of focus we now plan. Within these focus areas we have described what we have achieved to date as well as what we plan to start. Where it helps give clarity we have also included some case studies. Within the appendices we have provided the full detailed action plan and timescales.

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

- 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.



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.

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.

WHAT WILL THIS LOOK LIKE?



Pollutions task force

Key activities

Benefits

Dedicated Pollutions Task Force led by the Director of Networks and Customer Services

→ We will fast track activities to ensure an early win on delivering pollution reductions

Enhancing our resources – adding more management support to our pumping station teams

→ Will enable focus on the delivery of improved pumping station performance, which is historically a poor performing area for us

Increasing our front-line staff – we are redirecting more resources to our Network teams, increasing our Vactoring resource and increasing our site fitness checks

→ This will increase the volume of activities and productivity across these areas and the speed at which we can complete our pumping station fitness check programme

Timescales

- Work has already started in this area. The establishment of the Pollution Task Force commenced in March 2020. Resources providing increased analytical support have been in place since April 2020
- Management support for pumping station teams has already delivered more capacity and focus. We will look to complete our changes in this area by summer 2020
- We are redirecting further resources to these areas during April 2020 (**COVID-19 UPDATE:** we are currently on hold from increasing external hires and contractor resource until post current COVID-19 restrictions).

1 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 76% in 2019
- 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 while 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. This will include trialling public engagement through volunteer 'Water Rangers'.

WHAT WILL THIS LOOK LIKE?

Pollutions desk

Key activities

Benefits

Creation of a dedicated 24-hour Pollution Desk within our Service Support Centre

→ Enhancing our control of the events that could lead to pollutions events

Increased proactive alarm management

→ Enhancing our early warning alarms to spot pollutions before they occur through use of our telemetry and analysis systems

Weather management planning

→ Enhancing our ability to model the impact of weather on our operational performance so that we can put in place mitigation plans in advance of any adverse weather

Timescales

- Our 24-hour Pollution Desk will be created in the summer of 2020
- On establishment of the Pollution Desk we will develop both our proactive alarm management and weather management planning. Development of both these areas is part of a longer-term programme that we will work on continuously throughout the AMP, but we expect to see impact from both proactive alarms and enhanced weather management planning within the first six months of the new teams being set up.

2 ROOT CAUSE ANALYSIS

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 higher risk 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.



case study

WHAT WILL THIS LOOK LIKE?

Revised root cause analysis

Key activities

Development of a new root cause analysis tool to capture learning from all pollution events

→ Enhanced understanding of the full root cause of pollutions to influence our future interventions, but also help resolve the immediate cause of a pollution at a site and ensure, through control and management scrutiny of actions, that all necessary work is undertaken to prevent a repeat

Development of a 'propensity to pollute' tool to enhance our current hotspot modelling

→ Hotspot modelling has been used to drive our cleaning and maintenance programmes. By better predicting where pollutions could happen before they do we will be able to carry out more proactive interventions such as cleaning or other maintenance or asset investment solutions

Timescales

- We delivered a new root cause analysis tool in January 2020 and have started early population of this. We have developed the operational processes and governance that were needed to maximise benefit from this tool
- We aim to roll the tool out fully in June 2020 (**COVID-19 UPDATE:** full rollout delayed by current Covid-19 related restrictions, but will recommence as soon as possible)
- We are already hotspot mapping and using information from this to drive our proactive cleaning programme (MOSS). We will develop our 'Propensity to pollute' model during Summer 2020 for rollout later this year, developing this continuously throughout the AMP.

3 CONTROL SYSTEMS AND EARLY WARNING

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.

3. Control systems and early warning

continued

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.

3

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WHAT WILL THIS LOOK LIKE?

New modelling team and Drainage and Wastewater Management Plan

| 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 |

The table above shows the complexity of drainage responsibilities. These overlapping responsibilities can cause or exacerbate pollution. As part of better planning, monitoring and modelling of our network, and how we work with other responsible parties, we are delivering new Drainage and Wastewater Management Plans (DWMPs). These plans will help us reduce pollution, particularly where the root cause may lie with, or across multiple, parties. By reviewing risk at catchment level, there is additional pollution risk insight for our asset specific plans.

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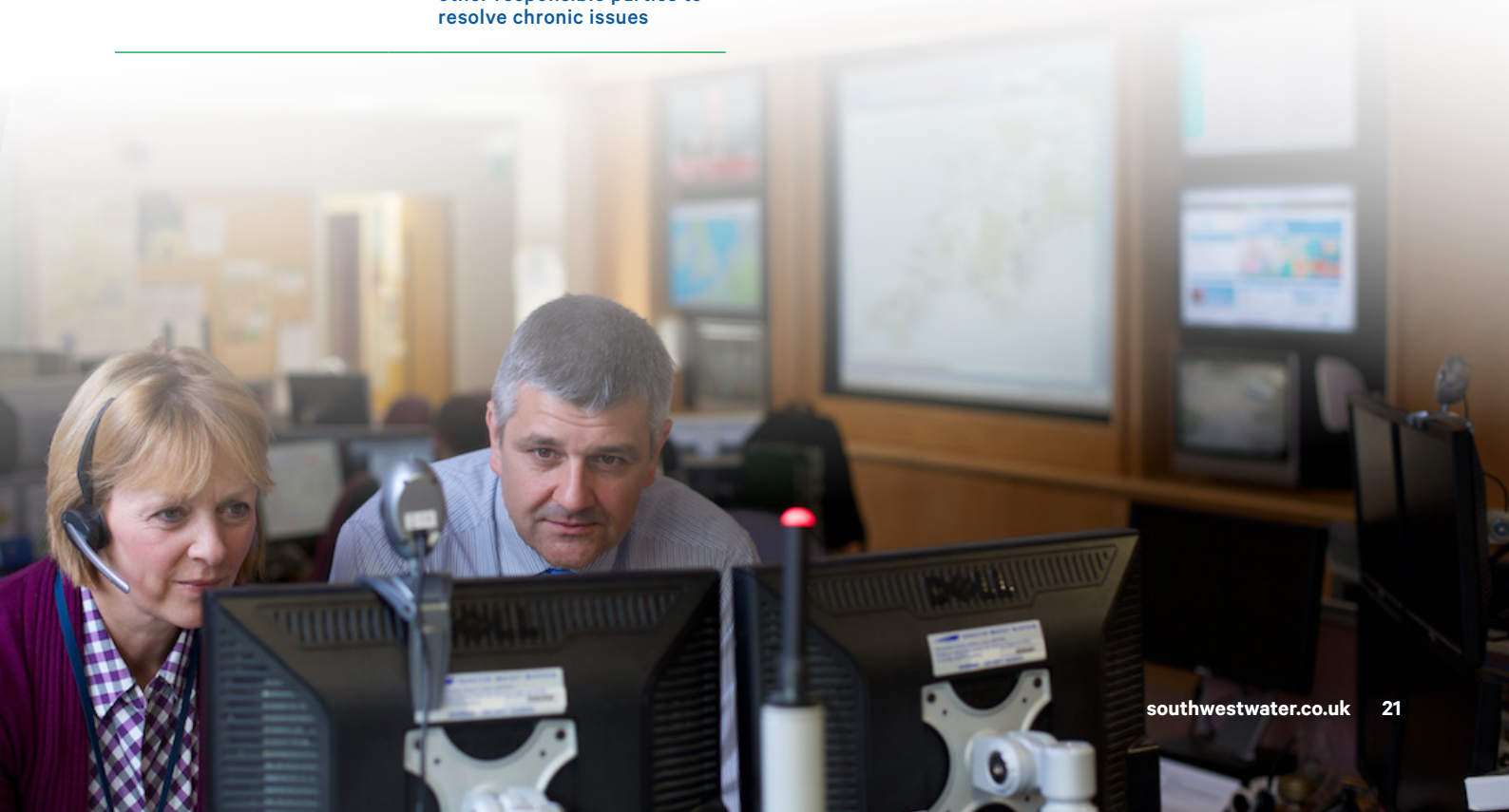
New modelling team and Drainage and Wastewater Management Plan continued

Some of the key tasks associated with our modelling and DWMP process and their pollution reduction benefits are shown below:

| Key activities | Benefits |
|---|---|
| Build inhouse network modelling capability and deliver strategic modelling programme and surveys | → Modelling will involve new flow surveys and new network models –which will help us identify network issues that could cause pollution in future before they do |
| Undertake GIS and modelling analysis to understand our catchments better | → Better catchment understanding will enable us to better focus maintenance to reduce pollution risk work but will also show where others are part of underlying root cause so these can be addressed long term, providing system resilience |
| DWMP plans | → As well as the benefits incurred while producing the plans (above), the actual plans will allow better long term decision making and joined up solutions with other responsible parties to resolve chronic issues |

Timescales

- Our new inhouse modelling team is already in place along with the DWMP delivery structure and governance
- Year on year the catchment screening will be run to identify where there is a risk or vulnerability which requires further investigation to identify whether action is required. These annual reviews will focus on known changes to the catchment
- By December 2020 we will have status reports on each catchment
- By 2022 we will have:
 - Completed options appraisals and developed preferred management strategies in consultation with stakeholders
 - Identified co-funding opportunities across all responsible parties
 - Produced the regional DWMP Plan which represents an optimised plan of measures to achieve planning objectives and documentation to support the plans for 2025-30 investment plans



4 ASSET SPECIFIC PLANS

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 will 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 some MOSS activity 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 24-hr 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 WILL THIS LOOK LIKE?

Asset plans

Key activities

Benefits

Network – Increasing our sewer cleaning programme to target our pollution hotspot areas

→ We are aiming to nearly double the length of sewers cleaned in 2020 against 2019. This will directly drive down pollutions in our worst performing areas

Pumping Stations – ‘Target 100’ programme – developing an enhanced maintenance and asset investment regime to ensure even with unforeseen failures of assets we replace and repair in a way that delivers 100% asset availability

→ Increased knowledge of our asset base and a more targeted programme of repairs and ultimately delivering a greater asset reliability will reduce pollutions from asset failure

Treatment works – Lean RCM – Using lean process thinking to target the efficiency and maintenance of our works

→ Driving up the output of our treatment works to ensure they deliver their peak design capacity though enhance maintenance and asset reliability will ensure greater resilience in our assets and prevent pollutions through failure at treatment works

Timescales

- We continued our existing sewer cleaning programme in Spring 2020, but will use the summer period to ramp-up crews to allow us to achieve the ambitious target of doubling our sewer clean programme in 2020
- Our work on the ‘target 100’ programme has started. This is a longer-term programme that will take the AMP period to fully roll-out, but we expect to see incremental improvements from this within the first 6-9 months
- We are looking to further resource our capital maintenance teams to support treatment works during the Summer of 2020. Rollout of this enhanced maintenance will occur across the AMP period.

5 INFLUENCING CUSTOMER BEHAVIOUR

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. We aim to undertake this 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



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

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 WILL THIS LOOK LIKE?

Fatbergs

Fatbergs are blockages or restrictions in wastewater sewers formed of congealed fats, oils and greases combined with wet wipes and other debris that shouldn't be in the sewer. These fatbergs are the physical manifestation of the need to influence customer behaviour and sewer misuse accounts for 66% of blockages. Such blockages can be small and localised in small diameter sewers or sometimes very large like the Sidmouth fatberg which was some 64 metres long.

Within our wider plans around influencing customer behaviour we have sub-set around fatberg blockages:

| Key activities | Benefits |
|--|--|
| Use fatbergs as engagement tool with media and customers | → Visual nature of fatbergs helps convey sewer misuse messages – better awareness |
| CREWW research on efficacy of sewer misuse awareness campaigns | → Improved efficacy of behavioural / awareness campaigns |
| CREWW research on fatberg formation – constituents, location, formation (including lessons learnt) | → Better understanding of sewer design risks Less blockages → less pollution |

Timescales

- Media campaigns around fatbergs are dependent on when they are discovered
- We are planning a CREWW research project on the efficacy of our sewer misuse campaigns in 2020/21
- CREWW research on fatbergs constituents, location and formation will be linked to our project to better understand/predict blockages and pollution risk.



6 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 a 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.



case study

WHAT WILL THIS LOOK LIKE?

Zero tolerance to pollution communication



Our existing communication strategies and activities have progressed us through the awareness and commitment phase above. We will continue many of the existing communication activities to provide constant reinforcement. To get to strong culture of zero tolerance towards any pollution incidents requires new activities. The continuing and new activities are described below:

| Key activities | Benefits |
|--|--|
| Awareness <ul style="list-style-type: none"> • Podcasts • Video • Magazine • Subject-specific newsletters • Cascade presentation • Department newsletters | → Bolstering existing progress in this area through using new media routes |
| Understanding <ul style="list-style-type: none"> • Roadshow/event • Peer blogs • E-learning • Lunch & learns | → Bolstering existing progress in this area through using new and refreshed media routes |
| Support and involvement <ul style="list-style-type: none"> • Face to face events • Training film • Cascade presentation • Feedback/listening sessions • Planning/ideas generating workshops • Meetings and seminars | → More direct involvement with operational teams – using senior management listening sessions to get feedback on pollution strategy for refinement |
| Commitment <ul style="list-style-type: none"> • 1-2-1 meetings • Training courses • Workshops | → A zero tolerance culture towards all pollution including minor incidents |

Timescales

- Our communications plan involves an intense programme in 2020/21
- For 2021-25 our plan moves into a sustain and reinforcement phase.

7 INNOVATION AND COLLABORATION - CLOSING THE PERFORMANCE GAP

Our plan continued

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 WILL THIS LOOK LIKE?

Centre for Resilience Environment, Water and Waste (CREWW)

CREWW is an exciting new joint-venture with the University of Exeter, established to undertake research into some of the most pressing environmental challenges in our time. CREWW research will focus on a range of pressing issues facing the water and waste sectors, and pertinently some of our specific challenges around pollution incidents. Research will be undertaken by academics from disciplines including Geography, Biosciences, Engineering, Economics and Psychology, who work with partners in industry, government and NGOs, to develop a shared understanding of the issue.

Key activities

Benefits

Set-up CREWW process and governance

→ Identification of pollution reduction projects and prioritisation

Big data analysis (modelling) of rising main and pumping station failure

→ Improved targeting of maintenance
Better prediction of issues/events – quicker responses to problems
→ less harmful pollution

Phase 2 of Autorecognition software for CCTV data from sewers

Timescales

- We are already working on CREWW projects with Exeter University team
- An internal steering group has been set up
- An internal communication plan on CREWW is being developed
- We are planning CREWW research projects on the network failure model and phase two of the Autorecognition software for CCTV in 2020/21.



Appendix: Detailed action plan

We have presented our 5 year programme but we intend to review effectiveness at the end of each year to ensure the remaining planned activities are optimal. Before each year we will update the forthcoming year to a quarterly plan.

Areas of focus

1

IMPROVING OUR POLLUTION REPORTING AND ASSESSMENT

Current systems and reporting

Improving how we handle alarms and how we develop our predictive analytical capability in our Service Support Centre.

How we will do this

We are establishing a new Service Centre organisation that deliver greater control and advanced warning of pollutions. As part of this we will create a proactive alarm team to develop and manage this new approach.

As part of our new Service Centre organisation we will increase our ability to manage weather as an event and reduce the impact on our operations. We will fund additional tools and allocate resource to this area of work.

We will deliver an alarm rationalisation programme that has dedicated SCADA and ICA resource. The programme will look at Alarm standards, Alarm connectivity, trigger points as well as the maintenance and testing programmes. After initial establishment this will remain an ongoing activity constantly updating and reviewing our alarms are fit for purpose.

Creating a 'pollution desk' to react to early warnings of pollutions or manage and coordinate a response should a pollution occur.

As part of our new Service Centre organisation we will create a 24/7 pollution desk to centrally control our advanced interventions and reactive response to pollutions.

Through a combination of enhanced information, a more proactive approach to seeking to find pollutions (as well as the work we do to engage others such as our rangers) we predict there will be a minor increase in pollutions spotted.

Improving site analysis and information

Expanding the activities and areas of focus of OHES to support the understanding of impact should a pollution occur.

We will look to extend OHES core hours to include weekends and evenings to enhance the current support we receive.

Improving accuracy and self-reporting

Developing the predictive analytics described earlier. These activities will help us improve our self-reporting.

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.

We will look to create a number of Water Ranger teams. We will trial this in the summer of 2020. We will look to expand this in year 2 once we have understood the success of this activity.

Developing our sewerage network intelligence capabilities through increased telemetry and modelling, to anticipate pollutions, report earlier and enable earlier interventions.

We are aiming to install a number of Sewer Depth monitors on our Network from summer 2021 to enable proactive monitoring.

Develop mechanisms for the public to help report pollutions as soon as possible for example by putting more signs on outfalls from our assets.

We will rollout signage on the outfalls of our assets from Q2 of 2020 and continue through 2021.

Appendix: Detailed action plan
continued

| 2020 | Year 1 | | | | Year 2 | | | | Year 3 | Year 4 | Year 5 |
|----------------------|---------------------------|---|----------------------------|----------------------------|-------------------------------------|------------------|------------------|---------------|---------------|---------------|---------------|
| Jan/Feb/ Mar 2020 | Q1 2020/21 | Q2 2020/21 | Q3 2020/21 | Q4 2020/21 | Q1 2021/22 | Q2 2021/22 | Q3 2021/22 | Q4 2021/22 | 2022 | 2023 | 2024 |
| | | Establish structure | Recruit | Go live | | | | | | | |
| | | Establish structure | Recruit | Go live | | | | | | | |
| | | Initiate program Establish structure me | Initiate programme | | Delivery of key baseline activities | Ongoing delivery | | | | | |
| Establish structure | Interim desk established | | Recruit | Go live | | | | | | | |
| | | | | | | | | | | | |
| | Initiate contract changes | Go live | | | | | | | | | |
| | | | | | | | | | | | |
| | | Trial | | | Rollout further areas | | | | | | |
| | | | Initiate technology review | Complete technology review | New install programme (Network) | | | | | | |
| | | | Start rollout programme | | | | Complete rollout | | | | |

Areas of focus

How we will do this

2
ROOT CAUSE ANALYSIS

Determining the root cause

Expanding this area to analyse all events that could have led to a pollution, to ensure no area of learning opportunity is missed.

We have developed a new root cause analysis tool. This was put in place from Jan 2020. By Summer 2020 all pollutions will be tracked and the root cause understood within this tool.

Ensuring all lessons learnt from this process are quickly rolled out across the company.

We will use the new root cause analysis tool to manage the actions required to prevent further pollution at the same location. We will look for wider causes and solutions to pollutions that can be rolled out across all of our operations as an ongoing activity. This will become part of our normal operating rhythm.

Improving insights and targeting actions plans

Expanding 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.

We are reorganising our analytical teams. We will create a dedicated new role of 'Targeting Analyst' who will develop and manage the propensity to pollute model. We will be able to increase effectiveness by alignment of flooding/blockages/collapses action plans with those required to tackle pollutions.

3
CONTROL SYSTEMS AND EARLY WARNING

Telemetry and monitor coverage

Expanding our telemetry 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 establishing a new Service Centre organisation that deliver greater control and advanced warning of pollutions. As part of this we will create a proactive alarm team to develop and manage this new approach.

Evaluating how proactive and predictive analytics can operate for all areas of wastewater network, pumping and treatment assets and identifying monitors that will provide us best value early warning information.

We will configure our alarms to increase visibility in the areas we are able to carry out proactive trend analysis.

Control room philosophy

Developing further tools to log and manage our activities within our Service Support Centre that further enhance our procedures.

We will purchase an event logging tool for use in our service support centre.

Response and recovery

Further increase our response capability for managing pollutions, following a principle of 'Think big, act early', and possible further expansion of our logistical support to manage to this principle.

As part of our new Service Centre organisation we will create a 24/7 pollution desk to centrally control our advanced interventions and reactive response to pollutions. From Feb 2020 we enhanced our incident management arrangements to increase the focus on pollutions and levels of seniority dealing with these within the company. Once the pollution desk is established we will extend our event management arrangements.

We will further review our logistics capability, following on from previous years work to enhance our strategic spares we will focus on our ability to manage power outages and our transportation and speed of response from depot to site.

Ensuring 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.

We will use the RCA tool to manage the actions required to prevent further pollution at the same location (Repeat targeting) We will look for wider causes and solutions to pollutions that can be rolled out across all of our operations as an ongoing activity. This will become part of our normal operating rhythm.

We will review our working patterns – specifically our shift patterns in our pumping teams to increase our coverage.

Appendix: Detailed action plan

continued

| Year 0 | Year 1 | | | | Year 2 | | | | Year 3 | Year 4 | Year 5 |
|--|---------------------------------|--------------------------------|----------------|--|---|----------------------|---------------|--|---------------|---------------|---------------|
| Jan/Feb/ Mar 2020 | Q1 2020/21 | Q2 2020/21 | Q3 2020/21 | Q4 2020/21 | Q1 2021/22 | Q2 2021/22 | Q3 2021/22 | Q4 2021/22 | 2022 | 2023 | 2024 |
| New tool live | Used for all Cat 1-3's | | | | Used for all Cat 1-4's | Ongoing usage | | | | | |
| | | | | | | | | | | | |
| | | Establish Structure | Recruit | Go live | | | | | | | |
| | | | | | | | | | | | |
| Initiate simple alarm warnings/trending | | | | Delivery of new trending data (SPS) | New install programme (Network) | | | | | | |
| | | | | | Initiate alarm re-conf programme | | | Delivery of main body of upgrades | | | |
| | | Development of new tool | Go live | | | | | | | | |
| Establish structure | Interim desk established | | Recruit | Go live | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Areas of focus

How we will do this

4
ASSET
SPECIFIC
PLANS

Wastewater treatment works

Introducing specific maintenance programmes to reduce pollution risk – focused on cleansing of inlet works, pumps and pipework.

Scheduled maintenance and cleansing programmes to be implemented for inlets and screens. Including below waterline Screen inspection and maintenance. Resource and cost profile being established for continuous activity.

Introducing a training qualification for technicians and managers which will contain training on pollution risk and response.

Development of a training package for all relevant staff. Potentially using YouTube videos whilst social distancing remains in place.

Implementing the Lean RCM process following the successful trials.

Lean RCM has demonstrated benefits at specific locations. Wider rollout requires development of a lighter touch approach to influence activities at many more sites.

Capital Expenditure for replacement/enhancement strategy.

Pumping stations

Expanding our site-based action plans which are targeting high consequence pumping stations.

We started a programme of site MOTs in Oct 2019. We have visited 249. We will expand this programme to undertake MOTs across all of our pumping stations. We will increase our workforce by 50% to carry out this activity. This work forms part of our accelerated programme. We are targeting completion by end 2021. Once complete we will maintain a small team to continue to manage our high consequence stations.

Overhaul of our pumping station performance delivered by changes to the way in which we ensure 100% asset availability – changes to operating procedures, the way we manage performance and by boosting the numbers of people directly involved in this area of the business (redirection of resource).

We have developed a new tool that provides asset availability information to our teams enabling us to track and manage our asset availability to a greater extent. We will continue to develop this tool to provide real time data links from our telemetry and maintenance systems.

We have recognised that this area is one that requires specific management focus. In 2020 we will double the numbers of direct management/supervisory staff. We have already added 2 experienced managers into this area and will complete the full resourcing during summer 2020.

In 2019 we purchased 6 Jetvectors to carry out pumping station cleans. This work has proved successful in managing the health of these stations. We are going to increase the number of cleans we undertake by increasing staff numbers involved in this work and driving a greater utilisation of our units.

To increase asset availability at pumping stations we aim to carry out more planned rather than reactive work. We will do this by creating dedicated planned work teams, strengthening our performance management and looking at our lean processes.

Capital Expenditure for replacement/enhancement strategy.

Appendix: Detailed action plan

continued

| 2020 | Year 1 | | | | Year 2 | | | | Year 3 | Year 4 | Year 5 | |
|------|------------------------|--|---|-------------------|------------------------------------|----------------------------------|--------------------------------|---------------|---------------|--------|--------|------|
| | Jan/Feb/ Mar 2020 | Q1 2020/21 | Q2 2020/21 | Q3 2020/21 | Q4 2020/21 | Q1 2021/22 | Q2 2021/22 | Q3 2021/22 | Q4 2021/22 | 2022 | 2023 | 2024 |
| | | Review / Prioritise higher risk locations | Establish delivery resources | Go live | | | | | | | | |
| | | | Develop- ment of training packages | Rollout programme | | | | | | | | |
| | | | | | Re- estab- lish Lean team | Process Develop- ment | | | | | | |
| | | | | | | | | | | | | |
| | Increase resource | Rollout new programme | | | Complete programme | Reduced maintenance programme | | | | | | |
| | Develop tool | Go live – manual entry | | | Start system refinement | | Go live – automated updates | | | | | |
| | | Establish structure | Interim structure in place | Recruit | Go live | | | | | | | |
| | | | Recruit | Go live | | | | | | | | |
| | Establish structure | Go live – new cleaning plan | | | | | | | | | | |
| | | | | | | | | | | | | |

Areas of focus

How we will do this

4
ASSET
SPECIFIC
PLANS
continued

Sewerage network

Expanding 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 increase the length of sewer cleans from 165Km to 300Km in 2020/21. We will measure success of this programme and use this to determine the volume of cleans in future years.

Enhancing our planning of work to ensure we optimise how we prioritise risks and maintain efficiency.

We will increase the number of front line resources by 20% (Van packs) to allow us to segregate our planned and reactive work to a greater extent.

Delivering new operating procedures to support the lessons learnt from the success of our MOSS programme – further segregation of our planned from reactive activity.

Boosting the number of people targeting pollutions through these cleansing activities (redirection of resource).

We will create within our local networks team a ‘Task force’ who focus on prioritising pollutions work (both planned and reactive).

Capital Expenditure for replacement/enhancement strategy (SPS)

Drinking Water

Embedding new pollutions risk escalation and management processes.

Processes aligned with WWS and teams trained in new processes – management training focussed on timely reporting and escalation, including use of PIRS/NIRS.

Embedding a new 24-hour process monitoring team who will provide proactive identification of potential pollution events.

Team in place and providing 24/7 cover across range of DWS activities – demanning of Littlehempston and Pynes will release further resource which will transfer to central process control team (3 additional posts).

Investing in additional network and process monitoring equipment and automation to allow remote, proactive monitoring and control of our operation.

Additional SCADA monitoring points delivered through a combination of fixed and portable logging devices. Continuation of network automation schemes to increase remote control capability at critical control points.

Deploying 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.

Procurement of EZ-Valve underpressure valve installation units. Addition of remote response vehicles (RRVs) which will carry silt management bins, dechlorination equipment and materials for constructing bunds. New response time KPI written into new NSA contract, minimising the time bursts will run.

Upgrading a number of water treatment works and improving their operation, including the complete replacement of two aged treatment works in the Bournemouth area.

We will build two new water treatment works in Bournemouth with the first being constructed and commissioned in the current AMP. Creation of new multi skilled maintenance teams to carry out enhanced preventative maintenance activities on our current works. Continuation of targeted capital investment to replace ageing/unreliable assets.

Appendix: Detailed action plan

continued

| 2020 | Year 1 | | | | Year 2 | | | | Year 3 | Year 4 | Year 5 | |
|---|---|---|---------------|------------------------|----------------------------|---------------|---------------|---------------|--------|--|--------|---------------|
| | Jan/Feb/ Mar 2020 | Q1 2020/21 | Q2 2020/21 | Q3 2020/21 | Q4 2020/21 | Q1 2021/22 | Q2 2021/22 | Q3 2021/22 | | | | Q4 2021/22 |
| | Start 2020/21 programme | | | | Complete 2020/21 programme | | | | | | | |
| Engage suppliers | 10% increase | 20% increase | | Direct employ crews | | | | | | | | |
| | Start 2020/21 programme | | | | Complete 2020/21 programme | | | | | | | |
| | | | | | | | | | | | | |
| Process reviews complete and training delivered | Implementation – Go live | Ongoing delivery | | | | | | | | | | |
| Core team established | Complete demanning of Littlehempston/ Pynes | Training additional process controllers | | Ongoing delivery | | | | | | | | |
| AMP7 strategy defined and delivery programme agreed | Rollout of new fixed and portable loggers/Continuation of network automation projects | | | Ongoing delivery | | | | | | | | |
| Define and finalise AMP7 strategy – procure equipment | Go live as part on new NSA contract arrangements | Ongoing delivery | | | | | | | | | | |
| Outline scoping and business case creation | Detailed scoping and creation of delivery plan | | | Scheme delivery begins | Ongoing scheme delivery | | | | | First of new BW WTW commissioned, construction of second plant commenced | | |

Areas of focus

How we will do this

5
INFLUENCING
CUSTOMER
BEHAVIOUR

Love Your Loo

Continuing our campaign and improve targeting of activity informed by better actual and predicted blockage data.

We are strengthening the team that delivers this activity. We will now directly employ teams to deliver our customer facing activities, such as Love your Loo , Think sink, Commercial Fat Oils and Greases (FOG) and Misconnections into a single operating area to enable a greater coverage and engage more customers in our campaigns.

Delivering a new activity to enhance the plan by conducting a research project to optimise the behavioural levers.

Building upon the knowledge gained from previous phase of FOG and Sewer Misuse projects we will develop a 5 year plan targeting hot spots areas. The basis of the plan and targeting strategy will be research aiming to gauge how public attitude has changed over last 3 years. The research will provide understanding of public awareness and perceptions of the causes of sewer misuse.

Think Sink

Continue our existing work to promote the ‘Scrape, Collect, Wipe, Empty’ messaging around domestic FOG.

Optimising the impact our messaging through customer survey and research.

SWW is now developing a model capable of assessing household attitudes towards FOG, through the ‘Think Sink’ campaign. We are bringing “household bathroom, household kitchens and non-household kitchens” under one roof, with a new dedicated team. We will continue to build on previous knowledge and undertake a research in order to understand how public’s perception have changed. The research’s results will be a base for the future plan and delivery strategy.

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.

We will continue with households visits and distribution of ‘gunk pots’, encouraging customers to collect FOG and protect the environment. This will be done in conjunction with LAs and will be aligned with collection of organic waste.

Commercial Fat Oils and Greases (FOG)

Continuing 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).

Whilst proactive sewer cleansing is an effective method of preventing FOG building up and causing blockages, it is not sustainable process in the long-term, as it requires many repeat actions. We are developing a programme of activities which should prevent/reduce FOG from entering the sewerage system in the first place.

The FOG Commercial Strategy is designed as an alternative approach to address the root cause of blockages; changing attitudes around the incorrect disposal of FOG down the drain that leads to blockages and flooding/pollution.

The approach is to mirror the successful Love Your Loo campaign; with positive communication and awareness for customers via a phased audit system.

Developing an even closer cooperation with Environmental Health Officers (EHOs) to deal with those businesses who have repeat non-compliances with their duties.

We are aiming to introduce a new measure within Food Hygiene rating systems. This will include widening of the EHO audits to include rating of the FOG management as part of the overall assessment.

The project communication plan will include EHOs and other external stakeholders; such as the EA, local councillors, Chamber of Commerce and potentially relevant associations and businesses.

Appendix: Detailed action plan

continued

| 2020 | Year 1 | | | | Year 2 | | | | Year 3 | Year 4 | Year 5 |
|----------------------|---------------------|---------------|----------------------------------|-----------------------------|--|----------------------------------|---------------------|---------------|--------|--------|--------|
| Jan/Feb/ Mar 2020 | Q1 2020/21 | Q2 2020/21 | Q3 2020/21 | Q4 2020/21 | Q1 2021/22 | Q2 2021/22 | Q3 2021/22 | Q4 2021/22 | 2022 | 2023 | 2024 |
| | Establish structure | Recruit | Go live | | | | | | | | |
| | | | Select supplier; PO and research | Interpret results, go live | Rollout new visit programme | | | | | | |
| | | Recruit | Recruit, go live | Rollout new visit programme | | | | | | | |
| | | | Select supplier; PO and research | Interpret results, go live | Rollout new visit programme | | | | | | |
| | | | | | Establish forum: SWW, LA and EA, business | Rollout FOG collection programme | | | | | |
| | | Recruit | Recruit, go live | Rollout new visit programme | | | | | | | |
| | | | | | Establish forum: SWW, EHO, LA and consultation | Pilot projects with EHO | Rollout new measure | | | | |

Areas of focus

How we will do this

5
**INFLUENCING
CUSTOMER
BEHAVIOUR**
continued

Commercial Fat Oils and Greases (FOG) continued

Assessing how we can work with Local Authorities to encourage commercial FOG collection for energy recovery.

FOG research to investigate catering business awareness and perceptions of the causes of the problem will inform SWW and external stakeholders how we can change current practise of using inefficient grease traps and equipment.

With support of LAs we are going to establish a common platform between FSE, FOG collection companies, La and SWW in order to facilitate the regular servicing of grease traps and FOG collection for use at energy recovery plants.

Misconnections

Continuing existing awareness messaging around misconnections and intervening where we find problems.

Domestic misconnections are a nationally significant water problem. Misconnections and damaged drainage affect water quality, impact on amenity and put public health at risk. Misconnections impact on beaches designated under the EU Bathing Water Directive and shellfish waters, and threaten the achievement of 'good ecological status' of rivers under the Water Framework Directive. SWW has established a dedicated project and budget for investigating misconnection problems and pollution from these locations.

Significantly increase proactive identification of misconnections through additional surveys, modelling and collaborative work with the Environment Agency and local authorities.

As above

Starting a new campaign to increase awareness about correct connections with customers and plumbers/builders.

We will use lessons learned and successes from the FOG/LYL campaigns to develop a plan targeting misconnections. This plan will be a part of comprehensive research and customer survey (together with FOG and sewer misuse topics) and will inform the campaign. The core activity will be raising awareness and providing advice to builders and plumbers.

6
**LEADERSHIP
FOCUS - ZERO
TOLERANCE
TO POLLUTIONS**

Focus on pollution reduction

Continuing 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.

Will will engage a communications lead as part of our pollution task force to develop and manage the communications strategy on an annual basis.

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

Developing and delivering a HomeSafe style 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.

We will reallocate resource from our HomeSafe programme to develop the Pollutions engagement programme.

Appendix: Detailed action plan

continued

| 2020 | Year 1 | | | | Year 2 | | | | Year 3 | Year 4 | Year 5 |
|----------------------|---|-------------------------|---|--------------------------------|---|----------------------------------|---------------|---------------|--------|--------|--------|
| Jan/Feb/ Mar 2020 | Q1 2020/21 | Q2 2020/21 | Q3 2020/21 | Q4 2020/21 | Q1 2021/22 | Q2 2021/22 | Q3 2021/22 | Q4 2021/22 | 2022 | 2023 | 2024 |
| | | | | | Establish forum: SWW, LA and EA, business | Rollout FOG collection programme | | | | | |
| | Collect info about possible polluters Covid-19 dependant – CCTV investigations | | Recommence site visits and CCTV | | Rollout new annual programme | | | | | | |
| | | Recruit | Recruit, go live | Rollout new visit programme | | | | | | | |
| | | | Link with hotspot targeting and modelling | Establish forum SWW, EA and LA | Extend & link investigation via MOSS | | | | | | |
| Identify resource | Develop Comms strategy | Deliver Comms plan yr 1 | | | Refresh plan | | | | | | |
| | | | | | | | | | | | |
| | | | Release resource | Develop materials | Start rollout programme | | | | | | |

Areas of focus

How we will do this

7
**INNOVATION AND
COLLABORATION
- CLOSING THE
PERFORMANCE
GAP**

Benchmarking and ways of working

Continue best practice exchanges with other WASCs.

One exchange visit per year to share knowledge on pollutions and the progress with respective reduction plans and activities in order to refine and iterate our s plan for the following years.

Explore if secondments and/or job shadowing with the EA would help mutual understanding and best practice.

We will discuss this with the EA to understand what is viable and supported and dependent on that will develop a programme.

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.

Our plan is subject to review and change as we progress. While we have detailed a five year view of the plan we will do an annual review before confirming the actions for continuing and/or starting the following years. This will also include extending an invitation to the EA to visit pollution reduction improvements in the field.

Research and innovation

Operationalising existing research outputs and continue to develop them further.

We deliver an ongoing programme to operationalise outputs from existing research as they complete and if they are beneficial. This programme will therefore evolve, but we anticipate annual activity in this area.

'Big data' analysis on pumping stations and the antecedent conditions of failure.

We plan a specific project to understand the antecedent conditions and markers of pumping station failures with the aim of having completed this by Autumn 2020.

Rising main failure analysis to enhance our targeting of maintenance and renewal.

We plan a specific project to understand how to better target maintenance for rising mains based on failure analysis of pumping station with the aim of having completed this by summer 2020.

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.

We plan a specific project to understand how to better target maintenance for rising mains based on failure analysis of pumping station with the aim of having completed this by summer 2020.

Conduct rapid research on optimising all our behavioural campaigns.

We have a large number of actions around influencing customer behaviours and we need to be able to improve the efficacy of this work and the longevity of the behavioural change. We will use our CREWW partnership with Exeter University to undertake a physiological assessment of the tools we are using and how they could be further improved.

Autorecognition software for CCTV project

Building on the successful collaboration with Exeter University we will be undertaking a second phase of this project to better detect structural sewer problems.

Appendix: Detailed action plan
continued

| 2020 | Year 1 | | | | Year 2 | | | | Year 3 | Year 4 | Year 5 |
|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Jan/Feb/ Mar 2020 | Q1 2020/21 | Q2 2020/21 | Q3 2020/21 | Q4 2020/21 | Q1 2021/22 | Q2 2021/22 | Q3 2021/22 | Q4 2021/22 | 2022 | 2023 | 2024 |
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YOU SAID, WE DID...

Your feedback

Our response

Improving our pollution reporting and assessment

Developing a better prediction capability should be a top priority for reducing pollution in SWW. In order to fully function, this programme should be aligned with asset improvements, up skilling employees and root cause analysis. To be successful a consistent approach across all assets should be adopted and include adequate resources and maintenance should be deployed.

Involving communities was also identified as a mechanism to identify possible pollution risks sooner.

We have made prediction a key action and a priority in the plan. We are looking to better integrate our teams in different functions behind the goal of reducing pollution – principally brought about through our Pollution Task Force and Pollution Desk (see case study on page 13).

We have included trials for community 'Water Rangers' in our detailed action plan.

Root cause analysis

A robust root cause analysis could prove essential to reducing and preventing pollution if managed and operated properly. The understanding of the results is critical to formulating short term, midterm and strategic plans to prevent re-occurrence of pollution. As well as preventing repeating incidents it will allow solutions identified to be rolled out to similar assets. SWW need to be clearer on the timescale and scale of this operation (WTW, STW, manholes etc).

SWW should enhance their use of weather forecasting for predicting pollution risk and action planning. However, there is limited value in this approach unless linked to a set of actions in upgrading assets to reduce storm overflow and improve maximum capacity.

Enhanced Root Cause Analysis is a corner stone of our plan (see case study on page 17).

It was always our intention to provide a detailed action plan with timetable for each year. This is included within the Pollution Incident Reduction Plan document (see appendix).

We are primarily using weather forecasting to enable proactive operational action. We have separate but linked processes for asset planning such as the Storm Overflow Assessment Process and Drainage and Wastewater Management Plans.

Asset specific plans

The approach towards site specific management plans is in the right direction and would fit well alongside the root cause analysis. This overview would increase the effectiveness of the business in terms of operation and staff knowledge. Operators will have a better understanding of asset capabilities as well as permitting restrictions. Continuous evaluation will be necessary. It is important to consider pollution reduction activities such as Upstream Thinking and Downstream Thinking within a catchment context and more can be done. So far, there has been a lack of evidence of a reduction in pollution so further research should also be carried out.

We agree it is important to assess, test and challenge the performance of our pollution reduction measures and this will be part of a regular review.

We agree about the need to consider asset plans within a catchment context. We will be planning our activities around the assets but also geographically.

Influencing customer behaviour

SWW have been very proactive with their campaigns, although further campaigns with higher visibility are necessary. Additionally, more needs to be done to educate consumers and visitors to SWW sites in regards to what is and is not allowed down into the sewer network.

Increasing customer awareness is always beneficial; customers must be made aware of the implications their actions on the environment. Collaborations with other businesses, agencies and charities should be advertised more. A public engagement strategy could be developed to enhance SWW's visibility and bring about change.

We agree and are extending our campaigns as part of the reduction plan. We also agree about the visitors and will be using our CREWW research programme to enhance the effectiveness of our campaigns and specifically how we best influence seasonal visitors.

Your feedback

Our response

Leadership focus – zero tolerance to pollutions

Culture change is fundamental to delivering significant pollution reductions. Changes in leadership, training and management are key to successful programmes of change. Empowering staff with the skills and knowledge should be a key part of this process.

The culture change measures proposed were seen to be adequate, but some revision is necessary. A further push on an organisational culture and leadership was preferable as well as the Boards commitment to the changing culture. There is a perceived gap between the Board and the operational teams in the field, all members should be consulted on this change.

We have developed a full communication plan around this area with a view to delivering an intense programme in 2020/21 followed by sustaining activities on an ongoing basis. This will be led from Board level to front line teams with feedback and engagement throughout (see case study on page 27).

Innovation and collaboration – closing the performance gap

Research and collaboration play a critical part in innovation and success – it is important that new ideas and methodologies are in continual development across the industry.

Further research needs to be done regarding proposed activities as the plan. Moreover, the addition of information on when an engagement will occur and how interventions and research outputs will be shared with the rest of the industry is needed. With revisions the current plan will work if implemented fully and in a timely fashion.

We have unique vehicle in CREWW to enable this activity (see case study on page 29).

Overall

Good intentions but further ambition is needed. Current culture is reactive rather than forward thinking. It is clear that both planned and reactive activities in balance are necessary to preventing and reducing pollutions long-term. The initial progress should be on prevention, not post event actions. Adequate staffing is essential to the success of these schemes.

More thought needs to go into these plans, including planning for the unknown. Limited mention of hot-spot mapping, the review of effectiveness of interventions, enhanced risk prioritisation and review of management systems. The plan should include timescales and a better understanding of SWW resources that will be used in the suggested improvements. Additionally, input from operational staff is necessary as they are the ones with the experience and knowledge.

We remain convinced that both reactive and preventative measures are required given the nature of combined wastewater sewers that predominate in our area. We do plan to migrate the balance to being more preventative as we progress.

We will be using hot-spot mapping as part of our enhanced root cause analysis function.

Our communication and review process will be engaging front line teams to gain input on measures and improvements that can be made.

It was noted that our context section did not provide information on the numbers of assets we have on our water side of the business.

We updated the context section and maps to provide information on the scale of our water business.



**South West
Water**