



Department  
for Environment  
Food & Rural Affairs

# Storm Overflows Discharge Reduction Plan

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for Environment  
Food & Rural Affairs

# Storm Overflows Discharge Reduction Plan

Presented to Parliament pursuant to section 141A(8) of the Water Industry  
Act 1991

We are the Department for Environment, Food and Rural Affairs. We're responsible for improving and protecting the environment, growing the green economy, sustaining thriving rural communities and supporting our world-class food, farming and fishing industries.

We work closely with our 33 agencies and arm's length bodies on our ambition to make our air purer, our water cleaner, our land greener and our food more sustainable. Our mission is to restore and enhance the environment for the next generation, and to leave the environment in a better state than we found it.



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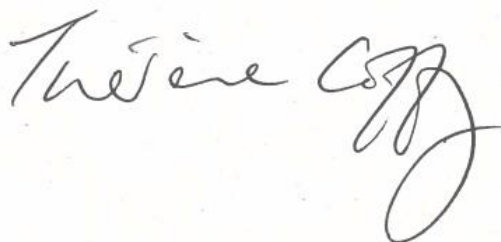
## Foreword

Improving water quality is not only vital to protect the people who enjoy our waters— from wild swimmers to kayakers, anglers and surfers – but it is also a key part of delivering our goals to recover nature. We have been clear that regulators and water companies must prioritise improving the water environment, from our Strategic Policy Statement to Ofwat, through to the raft of measures in the landmark Environment Act.

The Victorians introduced storm overflows as a safety valve for combined sewage systems. Now, under pressure from climate change and population growth, water companies use them far too often. This harms the environment, wildlife, and everyone who enjoys our seas and rivers. That's why this Plan sets out a mandatory £60bn investment programme to sort the problem out.

This Plan is the largest infrastructure project to restore the environment in water company history. Whilst we're demanding water companies invest more than ever before, we also know that, with rising pressure on the cost of living, we need to be careful of our impact on water bills. If we can go faster, we will, with a mandatory review in 2027 to see if we can go further.

We are committed to tackling the impacts of storm overflows. This is the first plan, by any government, to take action to do so.

A handwritten signature in black ink, reading "Thérèse Coffey". The signature is written in a cursive style with a large, looping flourish at the end.

**The Rt Hon Thérèse Coffey MP**

**Secretary of State for Environment, Food and Rural Affairs**

## Chapter 1: Introduction

### 1.1 What are storm overflows?

Storm overflows are a result of Victorian sewer infrastructure design, operating as safety valves built into the combined sewer system. They discharge excess sewage and rainwater to rivers, lakes, or the sea when the sewer system is under strain. This protects properties from flooding and prevents sewage backing up into streets and homes during heavy storm events. A growing population, an increase in impermeable surfaces and more frequent and heavier storms because of climate change have increased pressure on the system.

### 1.2 Why is this Plan necessary?

There are around 15,000 storm overflows in England. They discharge at different rates depending on local conditions including climate, rainfall and the type of sewerage system. In 2021, 90% of storm overflows discharged at least once, with 5% discharging more than 100 times, including into or near 'high priority' nature sites such as Sites of Special Scientific Interest. Bathers and other water users are impacted by the 8% of storm overflows that discharge near a designated bathing water.

High levels of sewage discharges present two main types of harm:

#### **Harm to public health**

Discharges from storm overflows contain raw sewage, which can contain high levels of harmful pathogens, such as viruses and bacteria. This can pose health risks to people who use our water bodies for recreation.

#### **Harm to the environment**

Storm overflows can also lead to ecological harm due to their impact on water chemistry. Discharges of raw sewage can contain organic pollutants, microplastics, pharmaceuticals, nutrients, and heavy metals, as well as visible litter that is flushed down toilets. The impact of sewage discharges on ecology varies depending on the pollutants it carries, their concentration, and the nature of the receiving water body. The smaller and more dilute the sewage discharge, and the larger and faster flowing the receiving river, the lower the ecological impact.

This Plan sets clear and specific targets for water companies, regulators and the government, to work towards the long-term ambition of eliminating the harm from storm overflows. This, taken with wider measures outlined in the Plan for Water on nutrient neutrality and wastewater treatment, will transform and integrate our water system through more investment, tighter regulation, and more effective enforcement.



Water companies will be required to meet the targets set out in this Plan. The government expects Ofwat and the Environment Agency to support and challenge water companies to meet these targets. Ofwat is legally required to act in accordance with the Strategic Policy Statement, and with their duties under the Water Industry Act 1991. The government expects Ofwat to enable appropriate investment for companies to meet these targets. The targets will be underpinned by changes to the conditions in Environment Agency permits issued to water companies. The Environment Agency will assess compliance with these permits, making use of monitoring data that will also be available to the public, and where necessary take enforcement action.

### 1.3 Developing this Plan

Nearly 22,000 responses were submitted as part of the 2022 public consultation on proposals for the Storm Overflows Reduction Plan (referred to as 'the Plan') highlighting the public interest in this issue.

In developing the final Plan, we considered feedback from the public and stakeholders. A summary of the responses and the government position was outlined in the government response to the consultation, published alongside the Plan.<sup>1</sup> We have also published the Storm Overflows Elimination Report<sup>2</sup> and an Impact Assessment on the key targets proposed within the Plan.<sup>3</sup>

Between 12 June and 24 July 2023 the government consulted on the expansion of the Plan to cover coastal and estuarine waters, and received 846 responses from individuals, organisations and companies. Consultation responses are summarised together with the

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<sup>1</sup> Defra (2022) *Government Response to Consultation on Government's Storm Overflow Discharge Reduction Plan*, Available at: [Consultation on the Government's Storm Overflow Discharge Reduction Plan - Defra - Citizen Space](#)

<sup>2</sup> Stantec (2021) *Storm Overflows Evidence Project* Available at <https://www.gov.uk/government/publications/storm-overflows-evidence-project>

<sup>3</sup> Defra (2022) *Impact Assessment: Storm Overflows Discharge Reduction Plan* Available at: <https://www.gov.uk/government/publications/storm-overflows-discharge-reduction-plan>

government position in the government response to the consultation, which was published alongside this revised Plan.<sup>4</sup> We also published an updated Impact Assessment.<sup>5</sup>

This Plan is an expansion to the Storm Overflows Reduction Plan published on 26 August 2022. This extends the requirements of the Plan to all storm overflows from companies wholly or mainly in England by including all coastal and estuarine storm overflows. It clarifies the extent of each target and storm overflows which are prioritised for early action. It adds Marine Protected Areas and Shellfish Water Protected Areas to the sites which are prioritised for early action. It also sets out that the government will explore the development of an ecological standard for estuarine waters. Additionally, the government will consider the application of the rainfall target and its effectiveness for preventing ecological harm at coastal sites and subject to the results of that consideration may explore the development of an ecological standard for coastal waters.

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<sup>4</sup> Defra (2023) *Storm Overflows Discharge Reduction Plan* Available at: <https://www.gov.uk/government/publications/storm-overflows-discharge-reduction-plan>

<sup>5</sup> Defra (2022) *Impact Assessment: Storm Overflows Discharge Reduction Plan* Available at: <https://www.gov.uk/government/publications/storm-overflows-discharge-reduction-plan>

## Chapter 2: Actions for Water Companies

### 2.1 Overview

The government and regulators have been clear to water companies that the current use of storm overflows is unacceptable. In the Environment Act 2021, the government placed a legally binding duty on water companies to progressively reduce the adverse impacts of discharges from storm overflows. This is in addition to the legal duties on water companies under the Urban Wastewater Treatment Regulations 1994, and under the Water Industry Act 1991 to effectually drain their areas.

Work to reduce sewage discharges from storm overflows has already started. By 2025, water companies will have reduced storm overflow discharges from 2020 levels by around 25%.<sup>6</sup>

In this Plan, we are setting new targets which will revolutionise our sewer system and generate the most significant investment and delivery programme ever undertaken by water companies to protect people and the environment:

- By 2035, water companies will have: improved **all** storm overflows discharging near every designated bathing water; and improved **75%** of storm overflows discharging into or near 'high priority sites' (as defined in Annex 1).
- By 2045, water companies will have improved all remaining storm overflows discharging into or near 'high priority sites'.
- By 2050, no storm overflows will be permitted to operate outside of unusually heavy rainfall or to cause any adverse ecological harm.

In addition to these specific targets, the Plan also sets out our wider expectations for the water industry. We expect water companies to ensure their infrastructure keeps pace with increasing external pressures, such as urban growth and climate change, without these pressures leading to greater numbers of discharges.

We have strengthened the monitoring requirements on water companies to ensure we have a comprehensive picture of the use and impact of storm overflows. The new duties in the Environment Act 2021 (Annex 3) will give us and regulators the tools we need to hold water companies to account and take enforcement action where water companies are not meeting their legal obligations.

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<sup>6</sup> This is estimated based on the water company commitments set out in Annex 4

## 2.2 Targets for water companies

This Plan outlines specific and time-bound targets that water companies will deliver, as a minimum.

### 1. Protecting the environment

**Headline target: Water companies will only be permitted to discharge from a storm overflow where they can demonstrate that there is no local adverse ecological impact.**

#### Sub-targets:

- The headline target must be achieved for most (at least 75%) of storm overflows discharging into or near 'high priority sites' (as defined in Annex 1) by 2035.
- It must be achieved for all (100%) storm overflows discharging into or near 'high priority sites' by 2045.
- Water companies must achieve this target for all remaining storm overflows sites by 2050.

#### What will these targets achieve?

This target will ensure storm overflows are only permitted to discharge where water companies can demonstrate there is no local adverse ecological impact. This target will ensure that no water body in England should fail to achieve good ecological status due to storm overflow discharges.

The target ensures there is no wider local impact, rather than just considering the impact at a sampling point which can be far away from a storm overflow as has been done in the past. The local impact will be assessed by water quality monitors near the storm overflows ([Section 3.1](#)). This target protects biodiversity at both a local and national scale and will result in the complete elimination of ecological harm from storm overflows.

The sub-targets outline specific milestones for companies. This will help the government and regulators assess progress in line with this Plan's expectations at each subsequent review point ([Section 2.3](#)).

#### Application of this target

This target applies to all inland storm overflows. It is not yet possible to extend it to coastal and estuarine waters because there is currently no common standard for testing the ecological impact of storm overflows in coastal and estuarine waters. However, the government has committed to explore the development of an ecological standard for

estuarine waters. Additionally, the government will consider the application of the rainfall target and its effectiveness for preventing ecological harm at coastal sites and subject to the results of that consideration may explore the development of an ecological standard for coastal waters. As part of the government's review of the Storm Overflows Discharge Reduction Plan in 2027, the government will consider whether any developments pertaining to ecological standards in estuarine and coastal waters require the Plan to be further updated. In the meantime, all storm overflows, including those discharging into or near coastal and estuarine waters, will be required to meet 'Target 3', ensuring storm overflows do not operate outside of unusually heavy rainfall events.

## **2. Protecting public health in designated bathing waters**

***Headline Target: Water companies must significantly reduce harmful pathogens from storm overflows discharging near designated bathing waters, by either: applying disinfection; or reducing the frequency of discharges to meet Environment Agency spill standards by 2035.***

### **What will this target achieve?**

This target will address the harm to human health from storm overflows discharging near designated bathing waters, where people are most likely to use water bodies for recreation. This target applies to both inland, coastal and estuarine areas. It will require all storm overflows near existing, or any newly designated, bathing areas to comply with a rigorous standard for bathing, which sets a limit of 3 or fewer discharges per bathing season, with some bathing waters having tighter limits ([Annex 1](#)).

8% of storm overflows are close to designated bathing waters. We expect this target to reduce discharges from storm overflows close to designated bathing waters by over 70% during the bathing season and for reductions to also occur outside of the bathing season.

These first two targets (ecology and public health) and their sub-targets will ensure that the storm overflows causing the most harm, to public health or the environment, are addressed first.

This target will also be supported by the government's work to promote the designation of more bathing waters and rivers ([Section 3.4](#)), and ensure that users are informed in near-real time of any storm overflow activity or impacts on water quality in bathing waters ([Section 3.1](#)).

### **Application of this target**

This target applies to storm overflows discharging near designated bathing waters.

### **3. Ensuring storm overflows operate only in unusually heavy rainfall events**

***Headline Target: Storm overflows will not be permitted to discharge above an average of 10 rainfall events per year by 2050.***

This target acts as the backstop target to all other targets outlined in this Plan. For example, if a storm overflow is improved to meet the ecology or bathing water target during the next water company planning cycle, it must also meet the rainfall target, so the targets are achieved without requiring multiple improvements to the same storm overflows.

#### **What will this target achieve?**

Storm overflows were originally designed and intended to only operate in unusually heavy rainfall events. However, they are being used significantly beyond their original purpose. To limit pollution, this target ensures that storm overflows would only be used in the rare case of unusually heavy rainfall, if at all. This will also help to reduce the general harm caused by storm overflows as heavy rainfall helps to dilute any discharges and reduces the impact they cause.

This target is key in protecting public health and the amenity value of sites which are not designated bathing waters.

#### **Application of this target:**

This target applies to all storm overflows, including all coastal and all estuarine storm overflows.

This target also provides protection for coastal and estuarine waters where there is currently no standard for assessing ecological harm. The target also applies to storm overflows discharging into or near 'high priority sites', including in estuarine and coastal waters that are not currently covered by the ecological target. This target must be achieved for at least 75% 'high priority sites' by 2035 and for 100% of 'high priority sites' by 2045.

## Timelines and Prioritisation for all three targets

Target	Timeline
Protecting the environment	By 2035: at least 75% of storm overflows discharging into or near 'high priority sites'.
	By 2045: all storm overflows discharging into or near 'high priority sites'.
	By 2050: all remaining storm overflows.
Protecting public health in designated bathing waters	By 2035.
Ensuring storm overflows operate only in unusually heavy rainfall events	By the earliest date any other target applies, and no later than by 2050.

In practice, to achieve the targets without requiring multiple improvements to the same asset, storm overflows need to be improved to meet all applicable targets by the following dates:

- By 2035: all storm overflows discharging near designated bathing waters, and 75% of storm overflows discharging into or near 'high priority sites'.
- By 2045: all remaining storm overflows discharging into or near 'high priority sites'.
- By 2050: all remaining storm overflows.

## Screening Requirements for storm overflows

### *Water companies will be required to ensure all storm overflows have screening controls.*

Water companies must ensure all inland, estuarine and coastal storm overflows have screening controls. These controls are screens that avoid pollution by limiting the discharge of persistent inorganic material (as well as faecal and organic solids).

This requirement should be delivered together with all the targets and sub-targets outlined in the Plan. So, for example, any storm overflows improved by 2035 to meet the bathing water or ecological standards, also need to meet the screening requirement.

## 2.3 Reviewing Delivery and Costs

### Managing impacts and review

#### *Government will review the targets in 2027*

Under the Environment Act 2021, the government must produce a report in 2025 on implementation of the Plan and the effect of any progress. Subsequent reports will be published every five years.

Water company investment operates on a five yearly cycle to protect customer bills and create checks and balances on investments. Water companies are in the process of business planning for the next Price Review cycle (PR24, covering 2025 to 2030). Companies will assess projects for delivery, costs, and the associated impacts on bills. Regulators will support and challenge companies through this process.

The Environment Agency will assess whether the plans put forward by companies meet the environmental and public health requirements. Ofwat sets the framework for the Price Review, in line with priorities set by the UK and Welsh Governments. Ofwat will assess companies' plans for efficiency and ensure water company proposals deliver best value for their customers and the environment.

We do not have the evidence, at this stage, to fully predict whether individual water companies can go faster to achieve the targets in the 2030s and beyond. These upgrades will require significant increases in supply chain capacity, from skills to equipment. We also want to assess whether the Plan incentivises the right investments, including what's best for people and the environment and the appropriate balance between grey and green infrastructure. It is also the case that current global circumstances are impacting the cost of living, and we must continue to keep this, and water bill increases, under close review. We will ensure that investment remains affordable.

The government is clear that improving water quality is a priority and the use of storm overflows must be addressed. Therefore, the government is committing to review the targets in the Plan in 2027, ahead of the 2030-35 water company planning cycle (PR29) once new information, including from companies' business plans, is available. We will be able to establish if companies can go further and faster to achieve the storm overflow targets in this Plan without having a disproportionate impact on consumers' bills. This will also feed into broader reporting mechanisms under the Environment Act 2021, such as through the Environmental Improvement Plan, to monitor and assess how this and other actions are contributing to the broader recovery of river and water habitats.

### **Distributional Impacts**

The cost of delivering the storm overflow targets does not fall evenly across England. The number of storm overflows, and the modelled cost of improvements, varies regionally.

*The table below shows the estimated distribution of capital costs falling on each company alongside the relative size of their customer base.*



<b>Water company</b>	<b>% of capital cost (central estimate)</b>	<b>Size of customer base as % of customers in England</b>
<b>Anglian Water</b>	1%	11%
<b>Northumbrian Water</b>	2%	5%
<b>Severn Trent Water</b>	15%	18%
<b>South West Water</b>	2%	3%
<b>Southern Water</b>	4%	8%
<b>Thames</b>	4%	24%
<b>United Utilities</b>	35%	15%
<b>Wessex</b>	11%	5%
<b>Yorkshire Water</b>	27%	10%
<b>Total</b>	<b>100% = £60bn capital investment</b>	<b>100% = 25m customers</b>

As this table shows, the scale of the modelled improvements required fall unevenly through the country. Three companies, Yorkshire Water, United Utilities and Severn Trent Water, account for over three quarters (77%) of estimated capital investment required but constitute less than half (43%) of the total customer base. The government expects all water companies to deliver the targets set out in this Plan as fast as possible and by the target end dates at the latest. Companies with a smaller share of costs relative to their customer base are therefore well placed to deliver targets ahead of schedule. Ofwat will work with Defra and the Environment Agency to ensure that incentives for water companies take into account the challenges faced by each company, where appropriate. The government will continue to work with Ofwat and the Environment Agency to ensure investment is spread appropriately across the delivery period.

Ofwat will also continue to carefully scrutinise the efficiency of all investments to ensure that customers do not have to pay more than they should have to.

## **Costs**

The review point in 2027 will allow the government to assess national targets to ensure they remain ambitious, affordable, deliverable and represent best value for the environment, communities and billpayers. This is in line with the responses to the 2022 consultation on the Plan, which called for limiting impacts on water bill payers, as well as for delivery timelines to be accelerated.

Based on the modelled costs provided in the Impact Assessment, it is anticipated that annual water bills averaged over the whole period to 2050 would eventually rise by £45

p.a. in real terms as a result of investment in fixing storm overflows. There will be no bill impacts until 2025. The modelled bill increases will start in 2025 and would average £13 between 2025 and 2030. These figures are averages across England. We expect there to be significant variations across years and water company regions, with bill impacts for water company regions with the largest storm overflow programmes up to 3 times the national average and for those with the smallest programmes lower than one-sixth of the national average. This will be considered further when the targets are reviewed in 2027.

The government will continue to monitor water affordability and take further action if needed, focussing on improving consistency and fairness across existing regional social tariff schemes, and will consult on options to improve social tariff arrangements to help less well-off households.

There is uncertainty about future changes in water bills. Actual costs may be lower than modelled where companies are able to find lower cost solutions locally, and this will be considered further in the 2027 review. The review will also consider how water companies' affordability measures are continuing to support households that are unable to afford their water bills, and to ensure bill increases do not have disproportionate impacts.

Owat, the economic regulator of the water sector, will assess the water company business plans to ensure the targets are delivered as efficiently as possible, to provide best value to customers and the environment, challenging companies to keep bill increases manageable for consumers.

## **2.4 Timelines for delivery**

The government has pushed water companies to urgently take actions to tackle storm overflows, already resulting in £3.1 billion of water company investment in storm overflows between 2020 and 2025. Furthermore, in June 2023, Ofwat announced that an additional £1.7bn of investment will be made available to accelerate new storm overflows infrastructure, so it can be delivered before 2030. [Annex 2](#) shows the work that is underway.

On the basis of the rainfall target alone, an estimated 80% reduction in the number of spills is anticipated by 2050, relative to a 2020 baseline. This equates to a reduction of over 300,000 storm overflow discharges per year.

These estimates of spill reductions are based on the effects of the rainfall target alone (maximum 10 spills on average per year) on the 90% of storm overflows that have Event Duration Monitor (EDM) data. We expect that meeting the ecology and public health targets in addition to the rainfall target will reduce discharges still further, and the 10% of storm overflows that are currently missing EDM data will also see significant spill reductions. However, we do not currently have the data to quantify these effects. The table below gives an indicative trajectory of improvements and the spill reductions that could be

achieved by the targets from a 2020 baseline. Greater detail will be available in water company business plans following final determinations in 2024.

Year	2030	2035	2040	2045	2050
<b>% of 'high priority site' storm overflows improved</b>	38%	75%	87%	100%	100%
<b>% of <u>total</u> storm overflows improved</b>	20%	40%	60%	80%	100%
<b>Indicative reduction in number of spills per year (relative to 2020 baseline)</b>	64,000	128,000	192,000	256,000	320,000

We are frontloading action in the most urgent areas. We expect water companies to tackle the worst polluting and most harmful storm overflows discharging to 'high priority sites' by 2035.

By 2035, we expect an average of 128,000 storm overflow spills to be prevented each year, amounting to 40% of the average annual reduction we expect to be delivered by the Plan by 2050. Initial work will be targeted at 'high priority sites' and will therefore deliver most benefit to the environment and the public. These storm overflows are anticipated to be the most challenging and costly to address given the scale of the improvements required. Between 2035 and 2050, water companies should focus on tackling the harm caused by the remaining storm overflows in 'high priority sites' and storm overflows in other areas.

In addition to these targets, water companies have responded to the government and regulators' challenge to go further in tackling storm overflows in the short term. Ofwat has

engaged with water companies and secured public commitments for discharge reductions that companies will achieve by 2025 and beyond. These are set out in [Annex 4](#).

## 2.5 Achieving the targets

Water companies will need to look for the best value solutions for people and the environment to achieve the targets at a local level.

Water companies must plan to achieve all relevant targets when developing solutions. For example, where analysis shows that the ecological harm can be eliminated but storm overflows are still being used too frequently, both the environmental and rainfall targets should be achieved.

The government also expects water companies to adhere to the following principles when achieving the targets:

### Complying with regulations

- 1. Water companies must comply with all their existing regulatory obligations and duties, including permits issued by the Environment Agency.***

Water companies need to maintain and upgrade their wastewater systems to ensure they meet their statutory service obligations and keep pace with all the pressures that add surface water to the combined sewer network. Before implementing infrastructure upgrades, water companies must ensure all their wastewater and drainage assets are working as intended, are not limiting capacity of their sewage system, and are compliant with all relevant legislation and permits. This includes (but is not limited to) proactive management and adequate maintenance of assets, with timely replacements, upgrades, or repairs of assets as appropriate. Upgrades as a result of non-compliance do not fall within the scope of this Plan.

If water companies are found not to comply with their legal responsibilities, Ofwat and the Environment Agency can take robust action. This may result in, for example:

- Fines for water companies responsible for serious and deliberate pollution incidents, to be taken from water company profits, and
- Potential prison sentences following successful prosecution for Chief Executives and Board members whose companies are responsible for the most serious incidents.

### Planning and forward look

- 2. The government expects water companies to have maps of their sewer networks and to understand where properties with separate rainwater pipes are connected to their combined sewer network.***

3. ***Water companies have clearly set out how they will meet their storm overflow targets in their Drainage and Wastewater Management Plans.***
4. ***In developing the best solutions, water companies should base their decisions on robust evidence and explore ways in which they can maximise wider benefits where solutions can address multiple issues, delivering best value for people and the environment.***

The requirements on water companies to undertake comprehensive long-term planning with regard to the capacity and resilience of the sewage network shall form part of water companies' Drainage and Wastewater Management Plan objectives. Proper planning and mapping will enable water companies to act when separation of surface water is the best solution to achieve sustainable reductions in sewage discharges. Water companies must prioritise removing existing surface water connections from the combined sewer network over building additional storage, wherever this achieves the best outcome for people and the environment.

Drainage and Wastewater Management Plans allow water companies to deliver the storm overflow targets in an integrated way. Water companies will be required to clearly set out how they will meet their storm overflow targets in these plans. Given the importance of the local context, water companies will work closely with local partners, such as local councils, highway authorities, drainage asset owners and managers, to ensure that their plans strategically link to other local plans, such as local flood risk management strategies.

Projects proposed as a result of Drainage and Wastewater Management Plans will be reviewed by the Environment Agency and Ofwat as part of the business planning process. The Environment Act 2021 allows the Drainage and Wastewater Management Plans to be made statutory.<sup>7</sup> The government will implement the relevant provisions during the next Drainage and Wastewater Management planning cycle (2023-2028).

#### **Driving better solutions:**

5. ***We expect water companies to achieve year on year reductions in the amount of surface water that is connected to their combined sewer network.***

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<sup>7</sup> Section 79 of the Environment Act 2021 amends the Water Industry Act 1991. New sections 94A, 94B, 94C and 94D and 94E of the Water Industry Act 1991 relate to the statutory provisions for Drainage and Wastewater Management Plans (known in the Act as Drainage and Sewerage Management Plans). Section 94A of the Water Industry Act 1991 sets out what a drainage and sewerage management plan must contain. Section 94A(3)(e) gives Ministers a power to make directions requiring that the plan address any other matters specified. Section 94C gives Ministers powers to make regulations about the procedure for preparing and publishing a plan.

Water companies must remove rainwater from the combined sewer system as part of effectually draining their areas. This should include limiting any new connections of surface water to the combined sewer network, and any new connections should be offset by disconnecting a greater volume of surface water elsewhere within the network.

***6. We expect water companies to prioritise a natural capital approach, considering carbon reduction and biodiversity net gain, as well as catchment-level and nature-based solutions in their planning.***

Traditional solutions to reduce discharges, such as increasing storage capacity, are carbon intensive. The costs and benefits of such interventions must be considered in decision-making. Solutions should be effective over the long-term and account for future pressures.

Green infrastructure and other nature-based solutions are an effective option to reduce the harm caused by storm overflows and can provide multiple co-benefits for the environment and society. For example, separating surface water so that it doesn't mix with sewage and is diverted to water gardens or wetlands improves water quality, creates new habitats for species and acts as a carbon sink.

In addition to the targets on storm overflows set out in this Plan, the government has committed to halt the decline in species abundance by 2030 in the Environment Act, and committed to net zero by 2050 in the Climate Change Act.<sup>8</sup> The government has also committed to raise at least £500 million in private finance for nature's recovery every year by 2027 and more than £1 billion a year by 2030. These objectives, focussed on protecting our natural environment must be approached in a cohesive way. The Environment Agency and Ofwat will actively encourage companies to consider green infrastructure in their proposals to achieve the targets set out in this Plan, and wider government priorities set out in the government's Strategic Policy Statement to Ofwat. As set out in our Strategic Policy Statement to Ofwat, we expect companies to operate in partnerships across catchments maximising co-funding and green finance opportunities, wherever appropriate, including through market mechanisms.

We are aware that green infrastructure enhancements often have longer delivery timelines than traditional concrete solutions and may therefore be seen as riskier investments by water companies. For that reason, the Environment Agency and Ofwat will work to ensure assessment processes promote and incentivise the use of nature-based solution in favour of more carbon intensive alternatives.

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<sup>8</sup> [Environment Act 2021 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/2021/1/section/1); [Climate Change Act 2008 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/2008/27/section/1).

To promote sustainable solutions, green infrastructure projects started before 2027 and delivered as quickly as possible will count towards completion of the targets, subject to review. This will be the case even when the full environmental impact of these projects has not yet been realised by the target end date.

***7. We expect water companies to consider treatment of sewage discharges as an alternative solution where appropriate.***

Water companies need to significantly reduce their untreated sewage discharges from storm overflows. In some cases, it may be better to treat discharges, rather than to reduce their frequency. In these instances, water companies may consider treatment of sewage discharges as an alternative way to eliminate public harm, rather than reducing their frequency. For example, this may be the case for highly diluted storm overflow discharges caused by groundwater infiltrating pipes which are difficult to repair. Where treatment is used, there will be checks to ensure compliance with the required standards.

**Better management of our rainwater by water companies**

We will expect water companies to value rainwater as a resource which benefits people and the environment, and to protect the natural water cycles that maintain biodiversity and full flowing rivers. Rainwater should be managed following these two principles:

- ***Rainwater should be treated as a resource to be valued for the benefit of people and the environment, not mixed with sewage or other contaminants.***
- ***Rainwater should be discharged back to the environment as close as possible to where it lands or channelled to a close watercourse without first mixing it with sewage.***

Water companies should prevent additional rainwater from entering the combined sewer network and remove existing rainwater connections where it is the best value solution.

## Chapter 3: Actions for the government

The government has already taken significant action to tackle storm overflows. This is further detailed in [Annex 3](#).

### 3.1 Transparency

The government has taken action to ensure all water companies have a complete picture of when each of their storm overflows is operating. This is the first step to address companies discharging sewage from storm overflows too often and without sufficient monitoring and oversight. We want to ensure regulators and the public can hold water companies to account.

#### The government will:

- 1. Bring forward secondary legislation to implement Section 81 of the Environment Act in 2023.**

There are event duration monitors on over 90% of the sewerage network. By the end of 2023, there will be 100% coverage. This will provide a complete picture of when, and for how long, each storm overflow operates.

The Environment Act 2021 introduced new requirements for water companies to publish this information annually, and for the Environment Agency to publish an annual summary report for all the water companies in England. All water companies must provide data about the frequency and duration of storm overflow discharges for all storm overflows in near real time and make this available to the public no later than 2025 (by the start of Price Review 24).

- 2. Bring forward secondary legislation to implement section 82 of the Environment Act in 2023.**

Under section 82 of the Environment Act 2021, water companies must monitor the water quality impact of their assets that discharge sewage, including storm overflows and continuous discharges from wastewater treatment works. This will provide continuous data and will significantly increase our understanding of the water quality of our rivers.

This information will allow us to measure water companies' progress to achieve the targets detailed in this Plan and other objectives. This duty shall apply to inland watercourses.

Defra has provided technical guidance to water companies on implementation of this duty ahead of laying the legislation.



### **3. Encourage innovation to continuously monitor complex sites:**

The scope of the statutory duty under section 82 of the Environment Act 2021 is limited to watercourses through which water flows. We appreciate that there will be increased interest in monitoring storm overflows that discharge to other water bodies such as lakes, groundwater and coasts, and the impacts they have on ecology and public health. However, these sites present unique monitoring difficulties, including the failure of sensors due to salinity of coastal waters and the difference in parameters for good water quality for different types of water body.

We will work with the Environment Agency and the water industry to pilot approaches, and encourage water companies to bring forward monitoring at complex sites where it is clear they have consumer support to do so to improve transparency of all storm overflow operations.

### **3.2 Better management of our rainwater**

Better rainwater management is key to achieving a reduction in sewage discharges from storm overflows, reducing flood risk and improving water scarcity to ensure a healthy environment. Buildings and impermeable surfaces concentrate rainwater, which runs off into our sewage and other drainage systems rather than being naturally absorbed into the ground and rivers.

In order to achieve better rainwater management, the government will:

#### **4. Implement Schedule 3 to the Flood and Water Management Act 2010.**

In its review of the case for implementing Schedule 3 to The Flood & Water Management Act 2010 which was published in January 2023, the government confirmed its commitment to place sustainable drainage for new developments on a mandatory statutory footing by implementing Schedule 3, subject to final decisions on scope, threshold and processes and once a full regulatory impact assessment had been completed. The government intends to consult on its proposals to implement Schedule 3 later this year with implementation expected during 2024. Implementing this schedule would:

- Introduce standards for new sustainable drainage systems (SuDS);
- Introduce an 'approving body', and;
- Remove the automatic right to connect to the public sewer system, to prevent new developments adding more surface water to the combined sewer network when it rains.

SuDS use features such as soakaways, grassed areas, permeable surfaces and wetlands, to reduce the amount of water being added to the sewer network,

reducing the risk of surface water flooding, improving water quality and benefiting biodiversity.

**5. The government will continue to work with water companies and relevant stakeholders on implementing the findings of the Storm Overflows Taskforce to better manage rainwater.**

The Storm Overflows Taskforce reviewed legislation on rainwater drainage and set out several recommendations. The government will assess the feasibility, effectiveness, and sustainability of these recommendations.

- i. Giving water companies the right to repair defective drains on private property.** The total length of privately owned drains is greater than that owned by water companies. Many of these private drains are old or poorly maintained. As a result, groundwater seeps into the system, increasing the volume in the combined sewer network and increasing the risk of storm overflow discharges. Water companies would need new powers to repair defective pipes on private properties, with suitable protection for property owners.
- ii. Giving water companies the right to alter drainage systems on private property to reduce impermeable areas connected to the combined sewer network.** There are local soakaway solutions, such as rain gardens or water butts, that can be used to reduce rainwater entering the sewage system from individual properties or groups of properties, for example from roofs and patios. Currently, water companies have limited powers to carry out drainage separation work on private property.
- iii. Giving water companies the right to discharge rainwater to water courses.** Water companies need to discharge new and existing single rainwater drainage systems to the nearest water course. Currently they have no rights to do this, and so riparian owners can either prevent or demand extremely high fees for discharges. This makes separation of rainwater from combined sewage systems a costly or impossible option.
- iv. Assessing the role of highway drainage as a rainwater drainage system.** Planning Practice Guidance sets out a hierarchy of drainage options to discharge surface runoff, with discharge of surface water to highway drainage preferable to discharge to combined sewers. In practice however, highway authorities often refuse to allow connection to their systems and there is no legal obligation for them to do so. This forces developers to connect to the combined sewer.

### **3.3 Reducing flooding risk**

**6. The government will continue to work with stakeholders, including the Environment Agency and local authorities, to deliver the Surface Water**

**Management Action Plan. The government had delivered over 60% of this plan by the end of 2022.**

Effective management of surface water is required to both mitigate flood risk and tackle sewage discharges. This requires action from multiple partners. Management of a functional drainage network is an essential element to reducing the risk of harm from surface water flooding.

Flood risk management is a top priority for the government. In July 2021, we published our surface water management update providing an update on progress in delivering the Surface Water Management Action Plan and a full response to the independent Jenkins Review into drainage.<sup>9</sup>

In addition, the government is working with local authorities in our Flood and Coastal Resilience Innovation Programme to achieve better surface water management in urban areas through blue-green infrastructure and share best practice (permeable road surfacing, green roofs, natural vegetation, etc).<sup>10</sup>

The government also commissioned the National Infrastructure Commission, to report on the effective management of surface water flooding in England.<sup>11</sup> The study has assessed the current approaches to managing surface water and considered the role of a range of interventions including both traditional built infrastructure and nature-based solutions. The government will respond later this year.

### **3.4 Further protection for our bathing waters**

**7. The government is reviewing the Bathing Water Regulations 2013. We will consult on policy options in 2023 with the aim to complete the review by the end of 2024.**

The Bathing Water Regulations 2013 have led to significant improvements in bathing water quality. We have over 400 bathing waters in England. In 2022, 97.2% of bathing waters in England met at least the minimum standard, and over 70% met the highest possible standard of 'excellent'. However, we recognise that further improvements to

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<sup>9</sup> <https://www.gov.uk/government/publications/surface-water-management-a-government-update>

<sup>10</sup> <https://www.gov.uk/guidance/flood-and-coastal-resilience-innovation-programme>.

<sup>11</sup> <https://nic.org.uk/studies-reports/reducing-the-risks-of-surface-water-flooding/>

protect bathers and other recreational water users are necessary. We also want to see more bathing waters and rivers designated.

Following discussions with key stakeholders, it has become clear that the Bathing Water Regulations 2013 should be reviewed to ensure they reflect changes in how and where people use bathing waters. We will aim to complete the review by the end of 2024.

#### **8. The government has revised its existing guidance on applying for new bathing water designations.**

Previously most bathing water status applications came from local authorities. Increasingly we are seeing applications from community groups, and this has highlighted that parts of the guidance could be clearer.<sup>12</sup> The government has revised the guidance to make it easier for applicants to understand the criteria for bathing water status.

#### **9. Improve transparency of bathing water quality.**

The government will consider what further steps can be taken to improve the timeliness and usefulness of information that the public are given about bathing water quality, including through the monitoring measures in the Environment Act.

Bathers are currently informed of the water quality through signs which display the annual classification of a bathing water, alongside other information. The Environment Agency also issue daily pollution risk forecasts during the bathing season at over 170 bathing waters.

We will consider what further steps we can take so the public can make informed choices before they enter the water.

### **3.5 Protection for our shellfish waters**

#### **10. The government is prioritising action to improve the water quality of the largest shellfish waters in England by 2030.**

In addition to adding Shellfish Water Protected Areas to the list of high priority areas, special consideration is given to areas of shellfish production to support shellfish life and to contribute to the high quality of shellfish products suitable for human consumption. The government has designated 101 Shellfish Water Protected Areas in England where water

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<sup>12</sup> <https://www.gov.uk/guidance/bathing-waters-apply-for-designation-or-de-designation>

quality is monitored for harmful bacteria and action taken to meet the strict microbial standard.

The government and the Environment Agency have identified waters which can achieve compliance with the microbial standard by 2030, and where there is significant economic production of shellfish and where action is needed to prevent deterioration.

The Environment Agency will require water companies to explore the need for action (improvement, prevention of deterioration or investigation) at 63 shellfish waters (63%) between 2025-2030. This will lead to reductions in sewage discharges from storm overflows and disinfection of treated sewage.

### **3.6 Action on antimicrobial resistance**

Sewage discharges can contribute to antimicrobial resistance given up to 80% of consumed antibiotics are excreted. Antimicrobial resistance is when bacteria, viruses, fungi and parasites no longer respond to medicines, making infections harder to treat.

To mitigate the spread of antimicrobial resistance we are working with water companies to understand the possible contribution of water industry discharges and sludge. The government has established a cross-departmental project, Pathogen Surveillance in Agriculture, Foods and the Environment (PATH-SAFE). It contained a workstream focused on antimicrobial resistance prevalence in three river catchments, which will monitor for antimicrobial resistance across a range of environmental sources, including surface water, wastewater, agricultural areas, shellfish and bathing waters. The project will strengthen our understanding of antimicrobial resistance in the environment, including the relative importance of different sources, transmission routes and the implications for people, animals, food and ecosystems.

### **3.7 Regulating the water industry**

#### Environment Agency

Within England, the Environment Agency is responsible for issuing permits and regulating all discharges from storm overflows. This is done by issuing permits for individual storm overflows that outline when they can operate and under what circumstances, as well as how they should be monitored and maintained.

**To support this Plan, the Environment Agency will focus regulatory and enforcement action:**

- *On activities that cause the greatest risk of serious environmental damage;*
- *Where the risks are least well controlled;*
- *Where a breach undermines a regulatory framework; and*

- ***Where they suspect deliberate or organised offending.***

The additional information on storm overflow discharges from the new monitoring and reporting requirements will improve the ability of the Environment Agency to enforce unlawful storm overflow discharges and permit breaches.

The Environment Agency has a range of enforcement actions it can apply when permits are breached. The Environment Agency can also prosecute a water company in line with its Enforcement & Sanctions Policy. In July 2023, the Government began legislating to remove the cap on the civil penalties that can be imposed by environmental regulators, including the Environment agency, as well as significantly broadening their scope to target a much wider range of offences. In deciding how to take enforcement decisions, the Environment Agency considers all the facts and circumstances, testing the evidence against the interests of the public. The Environment Agency acts proportionally when they apply the law and will take account of, and balance, impacts on the environment, people, and business.

### Ofwat

Ofwat is the independent economic regulator for the water and sewerage companies in England and Wales. Ofwat is responsible for making sure that the regulated companies provide consumers with a resilient and efficient service at a fair price. To support this Plan, Ofwat will:

- ***Challenge, support and enable water companies to meet the targets set out in the Plan;***
- ***Enable investment to follow investigations as quickly as possible without waiting for the next 5-yearly water company planning cycle;***
- ***Incentivise companies to meet these targets as quickly as possible and go beyond these targets if this is supported by customers, provides best value and is affordable;***
- ***Challenge companies to meet their public commitments;***
- ***Actively support companies in the use of green infrastructure where it is the most appropriate and best value approach;***
- ***Impose financial penalties for unmonitored storm overflows.***

Ofwat has a range of enforcement powers that it can use to ensure companies comply with their statutory obligations to provide and maintain a sewer system in relation to storm overflows. These include enforcement orders to ensure water companies take all appropriate steps to ensure compliance. Ofwat can also impose financial penalties on water companies to a maximum of 10% of their turnover (in a relevant year) if they are in breach of their relevant statutory duties or licence conditions. All financial penalties are

borne by shareholders rather than customers. The new monitoring and reporting framework will support Ofwat's ability to decide when to take enforcement action as it will be clear to all when storm overflow discharges exceed the legal limits.

## Chapter 4: Actions we can all take to make a difference

There are actions that we can all take to reduce the amount of rainwater entering our sewers and keep them flowing freely.

To support the long term aims of the Plan, the public can:

**Use permeable surfaces and alternatives for drainage.** Construction of impermeable surfaces like patios or plastic grass in our gardens concentrates rainwater in the drainage system and prevents its natural drainage. Using permeable surfaces, such as grass, and alternatives for drainage, such as soakaways and rain gardens, helps to reduce the problem. Permeable surfaces can prevent sewage systems from being overwhelmed and help to protect homes and business from flooding.<sup>13</sup>

The government is in the process of implementing Schedule 3 to the Floods and Water Management Act 2010.<sup>14</sup> When implemented, standards for and the adoption of most new drainage systems would become mandatory, and developers would need approval before any construction work commences. This is subject to final decisions on scope, threshold and process, while also being mindful of the cumulative impact of new regulation burdens on the development sector. We encourage property owners to make sustainable changes to their own existing properties as good practice regardless.

**Good use of drains.** Misuse of drains and sewers by disposing of fats, oils, greases, wet wipes and nappies down sinks and toilets can cause pollution and flooding as they can build up in sewer networks and limit or even block the flow in the pipes. Water UK research has identified that wet wipes flushed down the toilet are a frequent cause of sewer blockages.<sup>15</sup> Wet wipes, mostly comprising baby wipes, make up 93% of the material that causes sewer blockages, which cost the water industry in England and Wales £100 million a year to fix.<sup>16</sup>

**Reducing use of wet wipes.** We are currently exploring options to address the issues caused by wet wipes and ensure that consumers dispose of them appropriately. In

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<sup>13</sup> Guidance on the Permeable Surfacing of Front Gardens: [pavingfrontgardens.pdf](https://publishing.service.gov.uk/pavingfrontgardens.pdf) ([publishing.service.gov.uk](https://publishing.service.gov.uk)).

<sup>14</sup> [Flood and Water Management Act 2010 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/2010/23/schedule/3).

<sup>15</sup> Water UK. Wipes in Sewer Blockage Study: Final Report. 2017. Available at: <https://www.water.org.uk/publication/wipes-in-sewer-blockage-study-final-report/>

<sup>16</sup> <https://www.water.org.uk/news-item/new-proof-that-flushing-wipes-is-a-major-cause-of-sewer-blockages/>



November 2021, the government launched a call for evidence on commonly littered and problematic plastic items which explored future policy action on wet wipes.<sup>17</sup> A summary of responses to this call for evidence was published on 14 January 2023.<sup>18</sup> In the Plan for Water the government committed to:<sup>19</sup>

- change the law to ban the sale of wet wipes containing plastic - subject to public consultation, and
- support the Water UK communications campaign to 'Bin the Wipe' and write to the relevant producers and advertising authorities regarding the labelling of wet wipes as 'flushable' – this action will also help reduce pressure on the sewerage system and the use of storm overflows.

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<sup>17</sup> Call for evidence on commonly littered and problematic plastic items:

<https://consult.defra.gov.uk/environmental-quality/call-for-evidence-on-commonly-littered-and-problem/>

<sup>18</sup> Summary of responses and government response - Commonly littered single-use plastic items: call for evidence: <https://www.gov.uk/government/consultations/commonly-littered-single-use-plastic-items-call-for-evidence/outcome/summary-of-responses-and-government-response>

<sup>19</sup> Plan for Water: our integrated plan for delivering clean and plentiful water:

<https://www.gov.uk/government/publications/plan-for-water-our-integrated-plan-for-delivering-clean-and-plentiful-water/plan-for-water-our-integrated-plan-for-delivering-clean-and-plentiful-water>

## Annex 1: Technical Definitions and Further Details:

Assessing ecological impacts: For the purposes of this Plan, ‘*no local adverse ecological impact*’ means achieving the Urban Pollution Management Fundamental Intermittent Standards (FIS) or 99 percentile standards for Ammonia and Dissolved Oxygen downstream of the discharge point.<sup>20</sup> These standards apply to inland waters.

The government, utilising the expertise of the Environment Agency, will explore the development of an ecological standard for estuarine waters. Additionally, the government will consider the application of the rainfall target and its effectiveness for preventing ecological harm at coastal sites and subject to the results of that consideration may explore the development of an ecological standard for coastal waters. As part of the government’s review of the Plan in 2027, the government will consider whether any developments pertaining to ecological standards in estuarine and coastal waters require the Plan to be further updated.

The Environment Act 2021 requires the water industry to measure the water quality both up and downstream of these assets. This monitoring framework will give clear evidence to the public on whether improvement schemes are achieving the required outcomes, and where further upgrades may be required. The government is clear that monitoring should be a verification step and should not hold up the planning or delivery of improvement works.

The Urban Pollution Manual Standards are the best currently available measure of the environmental impact of storm overflows in relation to ecological harm. However, we are aware that there are emerging pollutants and areas where pollution from storm overflows may be outside of this manual. This includes emerging areas such as microplastics and anti-microbial resistance. As monitoring techniques are developed, consideration should be given as to whether new parameters should be brought into scope.

Updated ‘high priority sites’ list: We have added Shellfish Water Protected Areas and Marine Protected Areas (an umbrella term covering a range of protected areas), to the list of ‘high priority sites’. Setting out ‘high priority sites’ will drive faster action at these sites to meet all applicable targets, by the timelines set out in the ‘Timelines and Prioritisation for all three targets’ section in Chapter 2. Designated bathing waters are high priority, but have not been added to the ‘high priority sites’ list as they have been prioritised through the ‘protecting public health in designated bathing waters’ target (target 2).

‘High priority sites’ are:

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<sup>20</sup> [UPM Manual Version 3 \(fwr.org\)](https://www.fwr.org.uk/)

- Sites of Special Scientific Interest (SSSIs),
- Special Areas of Conservation (SAC),
- Urban Wastewater Treatment Regulations sensitive areas,
- Chalk streams,
- Waters currently failing our ecological standards due to storm overflows,
- Shellfish Water Protected Areas,
- Special Protected Areas (SPAs),
- Marine Conservation Zones (MCZs), and;
- Ramsar sites.

There are approximately 5,600 storm overflows that discharge into or near 'high priority sites' across England.

Good Ecological Status (GES): is defined in The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017.

Bathing water standards: The Environment Agency sets Environmental Quality Standards (EQS) for bathing water classifications.<sup>21</sup> This sets out the standard for faecal indicator organisms that determine the status of bathing waters. The acceptable level of storm overflow discharges is determined from these standards.

Environment Agency spill standards: These are the standards all storm overflows at bathing waters must be designed to achieve in order to reach EQS. These will be relevant for the assessment of whether the target has been achieved for each storm overflow discharging near a bathing water.

The previous Plan described storm overflows 'discharging into and near designated bathing waters'. As designated bathing waters are a point instead of an area, the wording has been updated to 'storm overflows discharging near designated bathing waters'.

For coastal waters, estuarine waters and lakes, storm overflows near a designated bathing water must be designed to achieve on average three discharges per bathing season for 'good' and two for 'excellent' bathing waters.

Storm overflows 'near' designated bathing waters are defined as those:

- 5km upstream of the upper limit of the inland bathing water reach.

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<sup>21</sup> [Water companies: environmental permits for storm overflows and emergency overflows - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/water-companies-environmental-permits-for-storm-overflows-and-emergency-overflows)

- 1km upstream of the coastal or estuarine bathing water.

The Environment Agency is currently assessing new standards for rivers and we expect that the spill standard will be less than two per bathing season. Currently, this standard is only applied to those storm overflows close enough to affect a single monitoring point for each bathing water.

**Screening requirements:** screens must be designed and well maintained so that they achieve the solid separation and flow rates that they were designed for.

## **Rainfall Target**

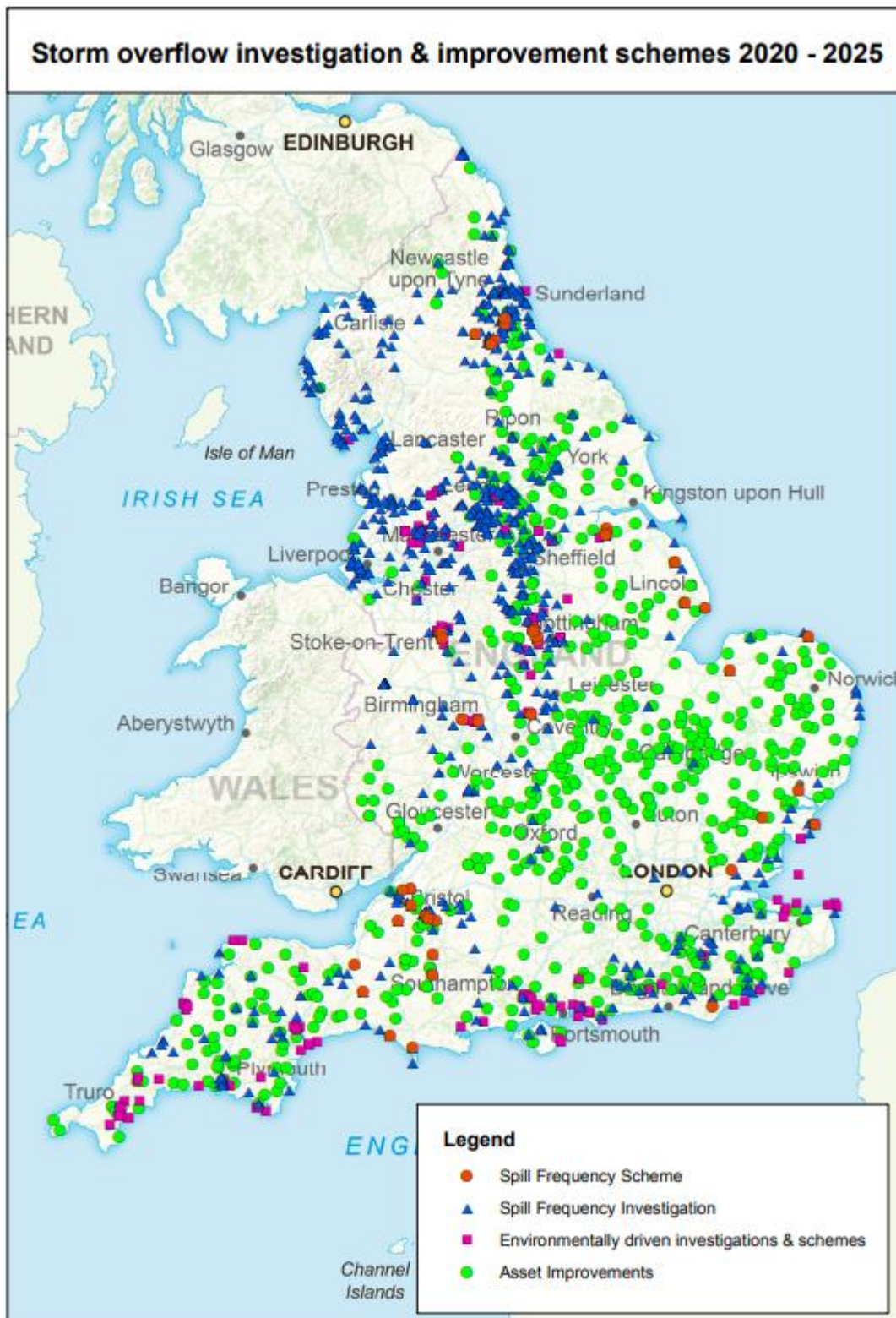
### Definition of rainfall event:

*A maximum of 12 hours rainfall will be classed as 1 rainfall event. Longer rainfall events will count as multiple events.*

When the government consulted on this target, it was stated that one rainfall event would be classed as 12 hours rainfall. We received several stakeholders' queries on this definition and how such a rainfall event would be regulated by the Environment Agency.

To clarify, the Environment Agency will apply an industry standard measure to translate rainfall events to discharges from Storm Overflows. This means that any discharge from a Storm Overflow within a maximum of 12 hours will be counted as related to one rainfall event for the purposes of the target. For long duration discharges that occur beyond the initial 12-hour period, it will be counted as an additional rainfall event for the subsequent 24 hours and each 24 hours after that for the purposes of the target. When a storm overflow has ceased to discharge for a 24-hour period, the counting mechanism will reset.

## Annex 2: Map of storm overflow investigations and improvements 2020 to 2025



### Annex 3: Government Legislative Action

The landmark **Environment Act** contains a suite of measures to tackle the harms that storm overflows cause and significantly improve the transparency of their operation:

1. **A duty on water companies to secure a progressive reduction in the adverse impacts of discharges from storm overflows.**

Historically, water companies have been permitted to discharge untreated wastewater to the water environment to prevent it backing up into houses or through drains. The permits contain the conditions for when discharges are permissible.

However, as pressure on the sewage network has increased from population growth and climate change, upgrades from water companies have not always kept pace. This new duty creates a clear requirement that storm overflows should not be used as a matter of standard practice. Water companies will now have to secure a progressive reduction in discharges from storm overflows and the adverse impacts of those discharges. This Plan sets out the specific and time-bound reductions water companies will achieve as a minimum.

2. **A duty directly on water companies and the Environment Agency to publish data on storm overflow operation on an annual basis.**
3. **A duty directly on water companies to publish near real time information on the operation of storm overflows.**
4. **A duty directly on water companies to monitor the water quality upstream and downstream of storm overflows and sewage disposal works.**

For too long water companies have been able to discharge raw sewage without appropriate scrutiny due to a lack of monitoring data and an incomplete picture of the full impact of storm overflows on the water environment. These new duties on monitoring will increase transparency and provide the government, regulators and the public with the information to take action and hold the industry to account.

5. **A duty on water companies to produce comprehensive statutory Drainage and Sewerage Management Plans (also known as Drainage and Wastewater Management Plans) setting out how they will manage and develop their drainage and sewer systems over a minimum 25-year planning horizon, including how storm overflows will be addressed through these plans.**
6. **The Environment Act also gives a power of direction for the government to direct water companies in relation to the actions in these Drainage and Sewerage Management Plans.**

The Environment Act made the drainage and sewerage management planning process statutory. This will enable sewerage companies to fully assess network capacity, short and long-term infrastructure needs and the impact of their activities on the environment.

**7. A requirement for the government to produce a report setting out the actions that would be needed to eliminate discharges from storm overflows in England, and the costs and benefits of those actions.**

In developing options to reduce the use of storm overflows, it is clear that there are gaps in the available research and policy. In 2022, we published a report setting out what it would take to eliminate the harm caused by storm overflows, exposing the costs and benefits of different courses of action.<sup>22</sup> This will allow for evidence-based debate on the feasibility of options to reduce the harm caused by storm overflows.

**8. A duty on the government to produce a statutory plan to reduce discharges from storm overflows and their adverse impact, and report to Parliament on progress.**

This Plan meets the legal requirement in the Act. It sets out the largest programme of action in history to tackle storm sewage discharges. It will revolutionise how water companies reduce discharges from storm overflows, in response to insufficient and in some cases illegal action from water companies and the public's desire to see a cleaner, healthier water environment.

To support the regulatory measures in the Environment Act, the government has set out clearly to Ofwat their expectation that the regulator must challenge water companies to improve their day-to-day environmental performance. Ofwat must challenge water companies to demonstrate the actions they will take to meet the targets set out in this Plan.

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<sup>22</sup> Annex 5: Report on feasibility of elimination of discharges from storm overflows - [Storm Overflows Discharge Reduction Plan \(26 August 2022\)](#)



## Annex 4: Commitments by water companies

Water companies have committed to achieve the following reductions in sewage discharges:

<b>Water company</b>	<b>2025 Commitments</b>	<b>River water quality commitments</b>
<b>Anglian Water</b>	Reducing discharges to an average of 20 per year	Ensure storm overflows and sewage treatment works do not harm rivers by 2030
<b>Northumbrian Water</b>	Reducing discharges to an average of 20 per year	Have plans in place to eliminate all impediments to rivers achieving good ecological status caused by operations
<b>Severn Trent Water</b>	Reducing discharges to an average of 20 per year	Ensure storm overflows and sewage treatment works do not harm rivers by 2030
<b>South West Water</b>	Reducing discharges to an average of 20 per year	100% coastal bathing water compliance and one third reduction in impact on rivers by 2025. By 2030, all storm overflows at beaches and 50% overflows which are environmentally sensitive on rivers in line with new targets. 100% of overflows in line with new targets by 2040
<b>Southern Water</b>	Reducing discharges to an average of 18 per year	Focus on the most sensitive locations (coastal and inland) prioritising nature based solutions. Reducing discharges to an average of 15 per year by 2030
<b>Thames Water</b>	Reducing discharges to an average of 24 per overflow per year	Reducing discharges to an average of 17 per overflow per year
<b>United Utilities</b>	33% reduction in discharges against a 2020 baseline	Aim to deliver a significant reduction in impact caused by storm overflows and sewage treatment works by 2030



<b>Wessex Water</b>	25% reduction in duration of discharges against 2020 baseline	Aim to deliver a significant reduction in impact caused by storm overflows and sewage treatment works by 2030
<b>Yorkshire Water</b>	20% reduction in average number of discharges against a 2021 baseline	Aim to deliver a significant reduction in impact caused by storm overflows and sewage treatment works by 2030





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