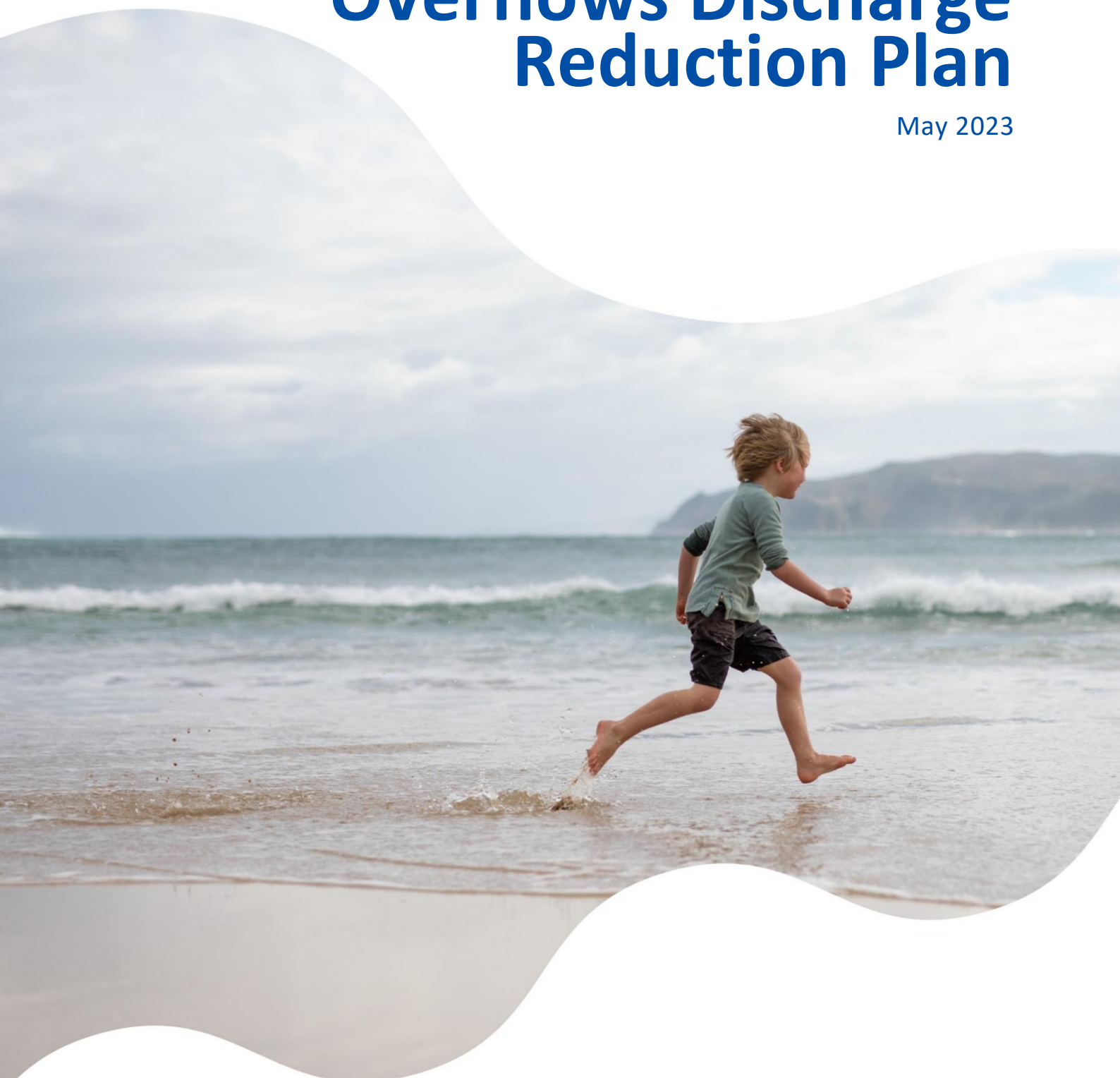


Drainage and Wastewater Management Plan

Alignment to the Storm Overflows Discharge Reduction Plan

May 2023



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Introduction

Our wastewater system has developed over many decades – over 30 years ago we inherited a system which today is at odds with the environmental ambition for the region. And since that time, we have been on a journey to evolve the system to meet future demands and protect the environment along the way.

Recently, we published our plan to 2025 for healthy rivers and seas – WaterFit – which outlines our three-year plan to 2025 to protect and enhance our precious water environment, working with partners, customers, visitors and local communities so that we all play our part. This programme will dramatically reduce our use of storm overflows.

The environmental ambitions of Defra’s 25 year environment plan, the Environment Act 2021, and the Storm Overflows Discharge Reduction Plan will enable us to go even further and are key contributors to our plans. In effect, this is accelerating our plans to reduce the use of storm overflows. All of our chosen investment scenarios achieve these targets. However, we have looked at the different pace and profiles of investment to meet the 2050 targets – and we have tested these to check alignment with our customer preferences.

Our storm overflow programme has been designed to provide improvements on every beach, where we have continuous and intermittent discharges, aiming to achieve performance of all coastal discharges to 10 spills per annum by 2030. We consider this to be a powerful programme of improvements and our biggest ever investment programme of this nature. We know this level of investment is needed to rebuild trust and confidence with our customers on the issues of storm overflow discharges and bathing water quality. It is essential that this confidence is rebuilt for both SWW and the water sector as a whole.

We know that customers expect our focus to be on protecting and enhancing the beautiful coastal bathing waters/beaches of Devon and Cornwall – customers have told us this is a priority for them. Our customers have told us that they want us to go further and faster to reduce the operation of our storm overflows at those bathing waters. And so do we.

This document sets out our plan for the next 25 years with regards to storm overflow discharge reductions and how this aligns to government targets.

What is the Storm Overflows Discharge Reduction Plan?

The Storm Overflows Discharge Reduction Plan was published on 26 August 2022 by Defra. This followed the publication of the Environment Act 2021 which placed a legally binding duty on water companies to progressively reduce the adverse impacts of discharges from storm overflows.

The plan sets out time-bound targets for water companies to reduce storm overflow spills over a 25-year period in order to tackle storm sewage discharges by 2050.

The plan requires that overflows that are causing the most harm will be addressed first, especially in high priority ecological sites such as Sites of Special Scientific Interest, Special Areas of Conservation and chalk streams. The plan also requires designated bathing waters to be addressed in the first 10 years of the programme.

There are a number of headline targets set out in the plan, summarised below.

- **Headline target 1: Companies are only permitted to discharge from a storm overflow where it can be demonstrated that there is no local adverse ecological impact, profiled such that:**
 - 75% of storm overflows discharging into or close to high priority sites are addressed by 2035
 - 100% of storm overflows discharging into or close to high priority sites are addressed by 2045
 - 100% of all storm overflows are addressed by 2050
- **Headline target 2: Companies are to significantly reduce harmful pathogens from storm overflows discharging into and near designated bathing waters by 2035**
- **Headline target 3: Companies will not be permitted to use Storm overflows to discharges above an average of 10 rainfall events per year by 2050**
- **Headline target 4: Companies are to ensure all storm overflows have screening controls at point of investment or by 2050 whichever is earlier**

It should be noted that headline target 3 does not currently apply to all coastal discharges. However, we recognise the importance of the coastline in our region to our customers and we have requested that Defra considers the inclusion of coastal discharges in the programme. We are pleased that, on the 9th May 2023, Defra confirmed that a consultation will be held regarding the expansion of storm overflow reduction targets to cover all coasts, estuaries and marine protected sites.

Focus is also given to shellfish waters, with the government prioritising action to improve the water quality of the largest shellfish waters in England by 2030.

Water and Sewerage Companies (WaSCs) are expected to consider the pressures of urban growth and climate change in their plans, as well as prioritising the use of nature-based solutions, carbon reduction and biodiversity net gain in their storm overflow discharge reduction planning.

How will WaSCs implement the SODRP?

The Environment Agency provided WaSCs with guidance¹ on the inclusion of investment for storm overflow discharge reductions within their Water Industry National Environment Programmes (WINEP). This guidance sets out how to address the new statutory requirements resulting from the Environment Act 2021 clauses on storm overflows, informed by the SODRP.

The guidance provides further detail and targets than the SODRP itself, breaking down the headline targets into several WINEP drivers, each with a related completion date.

WINEP Driver Description	Required Completion Date				
	2030	2035	2040	2045	2050
Investigations to ensure no local adverse ecological impact by April 2027	100%				
No local adverse ecological impact – shellfish waters	100%				
No local adverse ecological impact – overflows discharging in or close to high priority sites	38%	75%+		100%	
No local adverse ecological impact – all overflows					100%
Storm overflows that spill to designated bathing waters	Early contribution at WaSC discretion	100%			
Storm overflows spills so that they do not discharge above an average of 10 rainfall events per year	14%				100%
Ensure all storm overflows have screening controls					At point of investment for another improvement driver

Table 1: WINEP driver descriptions and completion dates

¹ Environment Agency, 2022. PR24 WINEP driver guidance – Storm overflow reductions.

Approach

Our AMP8 investment programme has been rigorously evaluated to deliver best value at efficient cost to our customers. This has included hydraulically modelling storm overflows to understand the scale of storage, or surface water removal, that will be required to reduce spill frequencies in line with the targets. Within this analysis we have considered the proximity of our assets to high priority sites, bathing and shellfish areas, the receiving waterbody status and associated Reasons for Not Achieving Good (RNAGs) and the current Event Duration Monitoring (EDM) performance.

We developed a three-stage process to validate the solutions taking them from an initially modelled solution, through to desk and site-based appraisals, and finally, for the Falmouth catchment, an engagement process with Lead Local Flood Authority contacts to assess where collaborative solutions can be co-developed and co-funded. This approach is explained in the DWMP and the Falmouth Case Study.

Recognising the scale of this investment programme, we refined our options into eight credible approaches, initially focusing on the 2025-2030 period.

Option	Description	Detail
Option 1	<ul style="list-style-type: none"> Legal minimum, least cost. 	Delivers the minimum requirements of the Defra SODRP at lowest cost
Option 2	<ul style="list-style-type: none"> Legal minimum 100% RNAGs 100% stakeholder/community priorities 	Delivers the minimum requirements of the Defra SODRP, all customer stakeholder requirements (which centers around bathing waters) and all intermittent RNAGs by 2030
Option 3	<ul style="list-style-type: none"> Legal minimum 100% RNAGs 	Delivers the minimum requirements of the Defra SODRP and all intermittent RNAGs by 2030
Option 4	<ul style="list-style-type: none"> Legal minimum Catchment approach 	Delivers the minimum requirements of the Defra SODRP and the top 12 priority catchments
Option 5	<ul style="list-style-type: none"> Legal minimum 100% RNAGs 100% high spillers 	Delivers the minimum requirements of the Defra SODRP, all intermittent RNAGs and any high spilling overflows over 100 spills/annum by 2030
Option 6	<ul style="list-style-type: none"> Legal minimum Your Beach, Your Say, Our Investment Stakeholder/community priorities Bathing Beaches 	Delivers all community stakeholder requirements and the legal minimum requirements by 2030
Option 7	<ul style="list-style-type: none"> Legal minimum High spillers 	Delivers the minimum requirements of the Defra SODRP and 80% of high spilling overflows.
Option 8	<ul style="list-style-type: none"> Legal minimum Ten inland Bathing Waters 	Delivers the minimum requirements of the Defra SODRP and ten inland bathing water sites (two inland bathing waters per annum)

Table 2: Potential approaches to storm overflows for 2025-2030

Option	Description	Detail	Number of locations by 2030	2025-2030 cost
1	Legal minimum – least cost	Delivers the legal minimum requirements of the Defra SODRP and bathing water/shellfish drivers at least cost	246	848
2	Legal minimum 100% RNAGs 100% stakeholder/community priorities	Delivers the legal minimum requirements Also addresses high priority locations as identified by our customers and stakeholder (which centres around bathing waters) AND all RNAGS associated with overflows by 2030 After 2030, SODRP achieved at lowest cost	309	1021
3	Legal minimum 100% RNAGs	Delivers the legal minimum requirements AND all RNAGS associated with overflows by 2030 After 2030, SODRP achieved at lowest cost	291	972
4	Legal minimum Catchment approach	Delivers the legal minimum requirements Addresses risks in the top 12 priority catchments After 2030, SODRP achieved at lowest cost	351	1245
5	Legal minimum 100% RNAGS 100% high spillers	Delivers the legal minimum requirements Addresses all RNAGS associated with overflows and any high spilling overflows over 100 spills/annum by 2030 After 2030, SODRP achieved at lowest cost	360	1458
6	Legal minimum 100% Stakeholder/community priorities / all the bathing beaches	Delivers the legal minimum requirements Also addresses high priority locations as identified by our customers and stakeholder (which centers around bathing waters)	275	961
7	Legal minimum High spillers	Delivers the legal minimum requirements Addresses 80% of high spilling overflows.	261	989
8	Legal minimum Ten inland Bathing Waters	Delivers the legal minimum requirements Delivers ten inland bathing water sites (two inland bathing waters per annum)	273	981

Table 3: Number of overflows addressed by each approach

We determined that Option 6 will deliver best value and balance the needs of our customers and the environment, enabling us to meet the priorities that we set out above.

Best Value Solutions

Our DWMP explains how we have developed our solutions using robust evidence and explores where we can use solutions that deliver additional benefits in order to deliver best value for customers and the environment. For example, all of our storm overflow solutions have been assessed for wider environmental benefits, societal benefits, biodiversity net gain and carbon and greenhouse gas impacts.

Our plan will enable us to reduce the amount of surface water that is connected to the combined sewer network, allowing us to deal with problems at the source and providing a longer-term solution that is resilient to growth and climate change.

Bringing innovation to storm overflows

The era of “design and deliver” engineering solutions is increasingly being replaced by community-centric efforts that look beyond engineered solutions. Our WINEP programme for Storm Overflows cannot and will not be delivered solely through traditional technologies and approaches. We need to reduce run off at source within our catchments alongside storage schemes. What we have planned is catchment-thinking and engagement with communities, householders, businesses and all risk management agencies who play a key role in reducing storm overflows.

We will be delivering a mix of grey (traditional engineering) and nature-based solutions including surface-water separation, sewer rehabilitation and attenuation and storage. Our previous successes in property level rainwater management systems have shown the positive impact working with communities and separating surface water can have on the environment.

Our Nature Based Solutions Aspirations document outlines our natural capital approach to green and blue solutions in the catchments. This means using lower carbon options and exploring opportunities to provide biodiversity net gain.

What does this mean for South West Water?

We know that we need a significant programme of improvements and engagement to rebuild trust and confidence with our customers on the issues of storm overflow discharges and bathing water quality.

Our WaterFit programme, launched in April 2022, is already enabling us to deliver a step-change in both river and coastal water quality. As part of WaterFit, we’ve made a commitment to reduce releases from overflows across our region, to an average 20 a year, by 2025. Our investment programme to 2025 is already clearly defined and we are delivering on this as quickly as we can. But this does not go far enough, and this is where our Drainage and Wastewater Management Plan (DWMP) comes in.

Drainage and Wastewater Management Plan

Alignment to the Storm Overflows Discharge Reduction Plan

southwestwater.co.uk

Green solutions are semi-natural spaces and assets that use ecologically driven processes to treat and slow or stop rainfall runoff.

Blue solutions utilise ponds, waterways, wet detention basins and wetlands within a drainage network.



100% of customers consider our WaterFit plans to be acceptable

ICS consulting –

‘WaterFit focus groups’ April 2022

Our 25-year strategic DWMP aligns with the Environment Agency's guidelines on developing the WINEP programme, enabling us to meet the expectations set out in the Environment Act 2021 and the SODRP. Our programme, within our DWMP, has identified the need to invest at 786 of our 1342 storm overflows over the next 25 years.

Prioritisation

When developing our storm overflows discharge reduction programme, we examined a number of options to profile expenditure and engaged with our stakeholders to determine local priorities. We have chosen to present a programme that includes those locations that are most important to our stakeholders and their local areas.

We have also engaged our customers regarding their priority areas for investment, their appetite for acceleration of investment and their concerns regarding the impact of investment on the affordability of bills. We know that the coast is an area of particular importance for our customers and for visitors to our region. As such, our storm overflow programme has been designed to provide improvements at every beach by 2030, where we have a discharge, in accordance with our **Your Beach, Your Say, Our Investment** initiative. This initiative will enable our customers to inform the prioritisation of our investment at the locations that are most important to them.

The government SODRP targets currently exclude coastal storm overflows that are greater than 1km away from a bathing or shellfish water. However, we have taken the decision to include these sites in our programme, as we have listened to the views of our customers and stakeholders who emphasise the significance of coastal water quality and the accessibility to local communities, visitors and the economy of the southwest region. The inclusion of those overflows within the WINEP is subject to regulatory approval. Defra are currently consulting to include these sites in the SODRP.

The 860 miles of coastline in our region means that our coastal storm overflow programme has a significant amount of the investment in the first 10 years. This is mainly due to the government targets aimed to resolve issues near shellfish waters and bathing waters by 2030 and 2035 respectively.

However, we also know that we need to do more to minimise our impact on the water environment and the ecology that lives within it. Where our intermittent discharges are deemed to be causing an impact on a watercourse, the Environment Agency assign an intermittent discharge Reason for Not Achieving Good (RNAG) to the water industry. Our storm overflow programme will provide significant ecological benefits and enable us to resolve more than half of the RNAGs attributed to our intermittent discharges by 2030, with 75% resolved by 2035 and 100% resolved by 2040.

As a result of all the prioritisation targets outlined, our long-term storm overflows programme is profiled to provide early focus on areas important to our customers and stakeholders, particularly beaches, as well as high priority ecological sites. This means that we will meet all the targets of the SODRP and, in many cases, exceed them.

A key consideration in the prioritisation has been the inclusion of those overflows already identified as impacting on bathing and shellfish, already identified through our recent investigations under the AMP7 Water Industry National Environment Programme (WINEP) investigations programme. The improvements identified have been included for delivery in our 2025-2030 investment programme and the benefit to storm overflow spill numbers is included in our storm overflow discharge reduction programme.

✓ On target
 ✓✓ Ahead of target

WINEP Driver Description	Planned Completion Date				
	2030	2035	2040	2045	2050
Investigations to ensure no local adverse ecological impact by April 2027	100% ✓				
No local adverse ecological impact – shellfish waters	100% ✓				
No local adverse ecological impact – overflows discharging in or close to high priority sites	49% ✓✓	78% ✓✓	100% ✓		
No local adverse ecological impact – all overflows					100% ✓
Storm overflows that spill to designated bathing waters	Investment at every beach ✓✓	100% ✓			
Storm overflows spills so that they do not discharge above an average of 10 rainfall events per year.	35% ✓✓	53% ✓	71% ✓	85% ✓	100% ✓
Ensure all storm overflows have screening controls	At point of investment for another improvement driver				

Table 3: WINEP driver descriptions and SWW planned completion for DWMP scenarios 1a, 2, 3, 4, 5 and 6

We recognise that this programme does not deliver fast enough for many of our customers and stakeholders and they want to see increased pace in delivery. As such, we have also considered a further scenario (scenario 1b) that looks at delivering the storm overflow programme over a 15-year timeframe, rather than 25 years. The key consideration for this programme is the impact upon affordability for our customers, and we need to make sure we balance this with the needs of the environment (beyond our statutory obligations, which we will meet in all scenarios).

Following consultation with our Board we have taken the decision to deliver the Storm overflow programme by 2040, 10 years ahead of the Government targets. This has been identified as our best value scenario within the DWMP.

✓ On target
 ✓✓ Ahead of target

WINEP Driver Description	Planned Completion Date				
	2030	2035	2040	2045	2050
Investigations to ensure no local adverse ecological impact by April 2027	100% ✓				
No local adverse ecological impact – shellfish waters	100% ✓				
No local adverse ecological impact – overflows discharging in or close to high priority sites	49% ✓✓	100% ✓✓			
No local adverse ecological impact – all overflows					100% ✓
Storm overflows that spill to designated bathing waters	Investment at every beach ✓✓	100% ✓			
Storm overflows spills so that they do not discharge above an average of 10 rainfall events per year.	35% ✓✓	68% ✓	100% ✓✓		
Ensure all storm overflows have screening controls	At point of investment for another improvement driver				

Table 4: WINEP driver descriptions and SWW planned completion for DWMP scenarios 1b

Classification	2025-30	2030-35	2025-40	Total
Ecological Harm	87	91	0	178
Shellfish Waters	70	0	0	70
Bathing Waters	93	0	0	93
Coastal	2	8	0	10
River	23	161	251	435
Total	275	260	251	786

Table 5 – Number of overflows by classification and delivery time period.

Bill impacts of DWMP profiles

We have assessed the yearly and monthly bill impact for the whole of the DWMP programme against both the 1a (25-year) and 1b (15-year profile).

			2025-30	2030-35	2035-40	2040-45	2045-50
1a	25 year total Wastewater bill impact	Apr. £/year	75	140	200	240	260
		Apr. £/month	6	12	17	20	22
1b	15 year total Wastewater bill impact	Apr. £/year	75	170	230	270	275
		Apr. £/month	6	14	19	23	23

Table 6: Bill impacts of Wastewater DWMP programme- based upon both scenarios 1a and 1b – covering 25-year and 15-year delivery programmes for storm overflows

2022/23 prices excl. CPIH inflation.

Your Beach, Your Say, Our Investment

We are seeking to engage customers directly in the delivery of our storm overflow programme and we are launching a new campaign called ‘Your Beach, Your Say, Our Investment’ alongside a new and refreshed WaterFit Live! system which will allow customers to see near real time storm overflow information about each beach and directly engage with SWW around issues and improvements.

We know that one of our highest customer priorities is for the protection and enhancement of the beautiful coastal bathing waters/beaches across Devon, Cornwall and the Isles of Scilly. For this same reason, we know that the knowledge that customers and coastal communities hold about their bathing water is invaluable and we foresee real value in combining this with our own knowledge as we develop our detailed plans. We are seeking to engage with customers and coastal communities in the development of our plans.

By launching ‘Your Beach, Your Say, Our Investment’, South West Water are signalling that we welcome the voices and input of the communities we serve, as we continue to shape our future investment programme at the beaches and coastal locations, we all care about.

To ensure that our genuine intention to listen is received as such, it is essential that we provide clear, well signposted opportunities for our communities, customers, and stakeholders to pass their insight to us and for us to demonstrate clearly that we have listened and responded to that input. Capturing the insight is the first step, and it can be done a myriad of ways, from face-to-face workshops to remote information gathering through website forms and in-situ engagement techniques at designated bathing areas, such as Hello Lamp Post.

We propose a two-pronged approach that would align closely with work delivered by our Community and Stakeholder Engagement Teams and would see us gathering information from our communities via a combination of remote/online and face to face engagement.



This gathering of information is the start of an ongoing process which is about relationship building and improving understanding as much as it is about helping us further prioritise our programme of investment from 2025.



Accelerated Delivery

In April 2023, the Government and Ofwat announced their draft decision for over £1.6bn of new investment, nationally, to improve the quality of rivers, lakes and coastal waters and secure future water supply. This was driven by a request from Defra to accelerate investment to tackle storm overflow discharges, as well as reduce nutrient pollution and address water resilience.

As well as investment to accelerate improvements related to Nutrient Neutrality, £70m worth of investment to upgrade the assets and particularly storage in the Falmouth and Sidmouth regions to reduce storm overflow discharges was indicated as approved.

This will mean that work can start earlier in these catchments, enabling us to get going with our commitments and deliver benefits sooner for our customers and communities.

Storm Overflow Action Plans

In April 2023, the Secretary of State for Environment, Food & Rural Affairs issued a request to all WaSCs for an action plan to be produced for all storm overflows. The action plans will reflect our DWMP, the WINEP and the SODRP.

As requested, we will provide an action plan to the Secretary of State for all storm overflows by the end of June 2023.

We will publish our Storm Overflow Action plans through both our website and through future iterations of the WaterFit Live system, we will maintain and update the action plan periodically on our web site.