

# Southern Water: East Sussex Update

25 July 2024



from  
**Southern  
Water** 

# Agenda

- Welcome and Company update – Tim McMahon
- Wastewater – operational update – Cathy Marriott, Andy Webb and Simon Tomlinson
- Clean Rivers and Seas Task Force – Jon Yates
- Water – operational update – Edward James, Stephanie Davidovitz and Paul Tiller
- Our work in the community – Dan Rodrigues and Charlotte Cramer
- Closing words



# Company update

Tim McMahon, Managing Director for Water



from  
**Southern  
Water** 

# Our Business Plan – 2025 to 2030

- In October 2023, we submitted our ambitious Business Plan to Ofwat for the period 2025-30. On the 11 July we received initial feedback from Ofwat on our plan, which we'll now carefully review.
- We'll publish our response on the 28 August, ahead of Ofwat's Final Determination in December 2024.
- Our plan is the company's largest ever – **c.£8 billion** to enhance the health and wellbeing of our communities, protect and improve the environment and help to sustain the local economy.
- More than **25,000 customers** spent over **8,000 hours** telling us what they think to help us develop it.
- Our customers are telling us – and we agree with them – that we need to increase our investment now so we can deliver the real change our communities expect, and our environment deserves.



# Some highlights from our plan for 2025-30...

## Some of the highlights you will have seen from our plan...

**£7.8 billion**  
investment programme

Investing in a new billing system

Doubling the amount of support we offer customers in vulnerable circumstances

Investing in leakage and demand reduction

Reduce overall pollution incidents by 50%  
Investing nearly £682 million to reduce our use of storm overflows

Investing £600 million to upgrade 38 wastewater treatment sites

More than 1 million smart meters

£320 million modernising our four largest water supply works

Reducing the amount of water we take from the environment

Investing in new sources like water recycling and a new reservoir

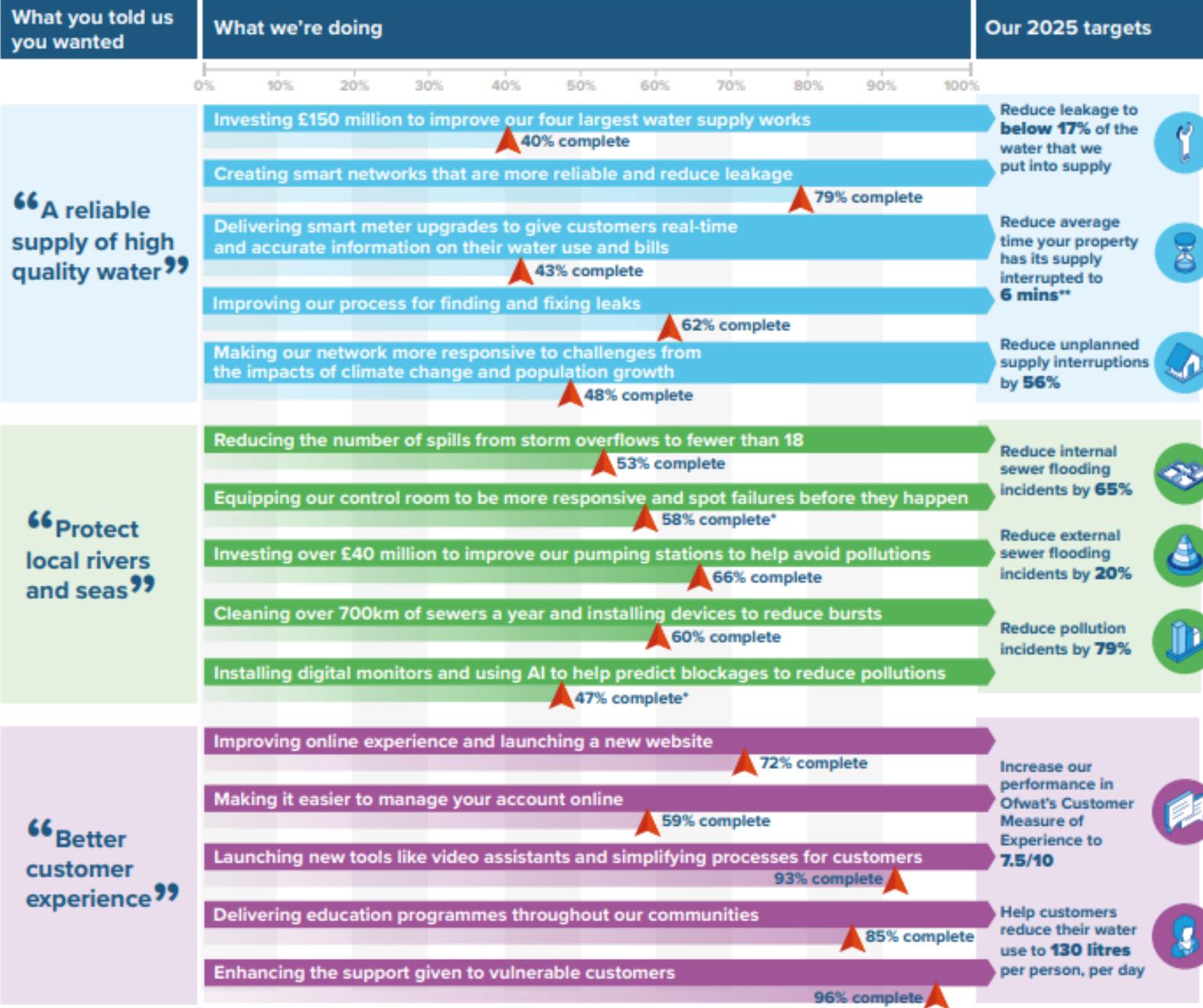
**£3.4 billion**  
between 2025–35 for a reliable supply of water

**£3.3 billion**  
in the environment

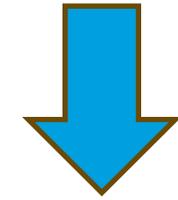
# Turnaround Plan

- In April 2023, we launched an ambitious Turnaround Plan to deliver a step-change in our performance over two years.
- Our overall goal is to provide a better service to our customers and to ensure that we're doing everything we can to protect our environment in the years ahead.
- Until 2025, we'll be reporting on progress every six months.
- Our plan is a short and sharp strategy to boost performance and it's showing continued signs of progress.
- It focuses on quick improvements in producing a reliable supply of high quality water, protecting the environment, and providing excellent customer service, as well as a number of other areas.





- Take a look at our latest update, which explains in detail where we are in our plan.



- [Turnaround Plan – May 2024 update](#)



\* Initial actions delivered or on track for but additional scope has been added to deliver the Pollution Incident Reduction Plan (Jan-Dec 2024) developed in consultation with the Environment Agency.  
 \*\* Our supply interruption performance remains challenging with a small number of high impact incidents masking underlying performance.

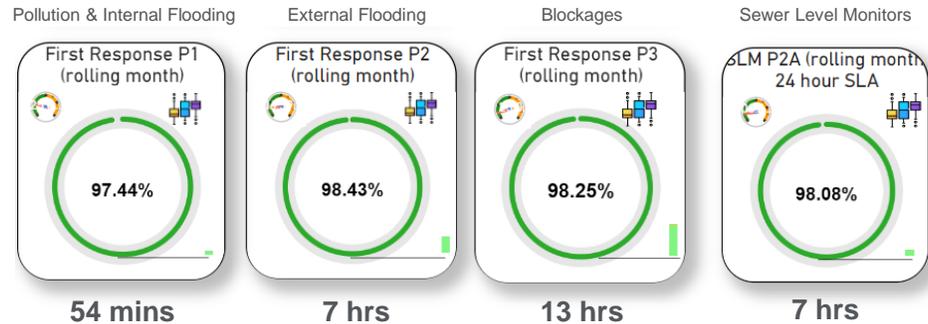
# Wastewater – operational update



from  
**Southern  
Water** 

The Southern Water logo graphic consists of three stylized, wavy blue lines of varying lengths, positioned to the right of the text "Southern Water".

# Wastewater Networks



## A very wet winter

- This winter we experienced extreme levels of rain and the ground in certain areas of Sussex became heavily saturated.
- The local drains and sewers were inundated with surface water run-off, which put significant pressure on our local wastewater pumping stations.
- A industry leading case study demonstrated that deployment of private lateral sealing (Tubogel) in addition to sewer lining has been successful in further reducing infiltration in West Sussex where tankering levels (despite higher groundwater) reduced by 90% year on year from 2022 to 2024.
- We are investing heavily this summer and plan to invest further in AMP8 to reduce infiltration and the subsequent risk to customer flooding and the environment.

## Looking to the future

- We are currently reprocurring our core Waste Network services for 2025 to 2033.
- We are procuring a specialist lot aiming to focus on manhole response and repair to improve:
  - Speed of response
  - First time fix resolution
  - Reduce end-to-end journey time
- Once we have awarded to our preferred supplier in the coming weeks, we would like to engage with you at the earliest opportunity to help ensure our final solution delivers an improved service



- Polymer modified mastic asphalt technique
- Reduced material waste
- Increased productivity
- First time fix
- Reduced carbon footprint



# Wastewater Treatment Operation in East Sussex

- 95 Wastewater Treatment Sites across East Sussex
- Largest treatment in East Sussex is our Peacehaven WTW, serving 140,000 customers (PE)
- Two of the sites in East Sussex are large sites, which treat products from the other 93 smaller wastewater treatment sites and have large anaerobic digestion processes – generating 12 GWh/year
- Our Strategic sites in Kent also provide reception at Ashford WTW and in West Sussex at Goddards Green
- Significant mix of coastal, rural and urban treatment assets, particularly into some sensitive areas incl SSSI and Shellfish Areas – with quality parameters within our permits which reflect this – including UV disinfection techniques and tertiary treatment
- Commissioning of our first Thermal Hydrolysis plant at Goddards Green – an advanced digestion technology which utilises high pressure steam to treat sludge to a high quality and improve power generation efficiency



# Capital Investments in Sussex - Wastewater

- **During AMP7 (2020-2025) we've invested £321m** so far which includes:
  - **Network Projects;** Rising Mains (£25m), Growth (£21m)
  - **Treatment Enhancement;** Additional Storm Storage (£9m), Increase Flow to Full Treatment (£9m) & Improved quality of treated wastewater, including Phosphorus removal (£122m)
- **£72m still to spend** this AMP, largely relates to **Treatment Enhancement**, vast majority schemes now on site.
- **Key Projects:** Goddards Green (£24m), Horsham (£31m), Pagham (£20m)



New Screen at Horsham



Pagham

# Clean Rivers and Seas Task Force East Sussex update July 2024



# Task Force evolution

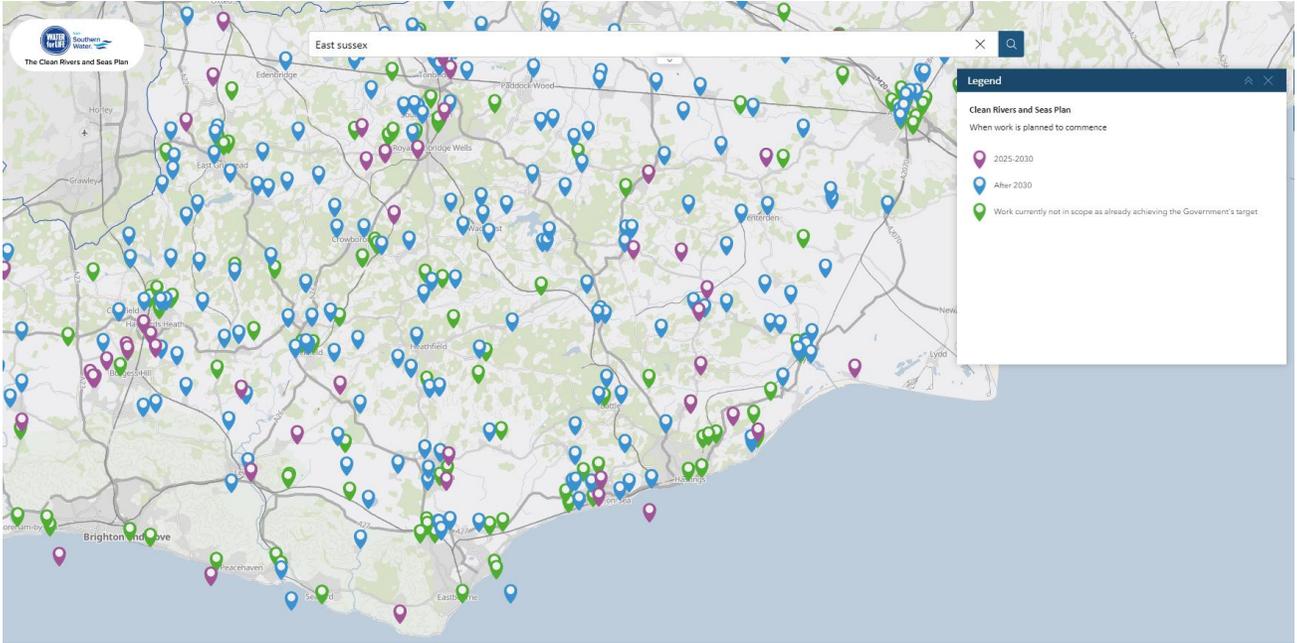


# Overflows in East Sussex

## Key stats

- 199 Storm Overflows in East Sussex
- 132 Require work/investment to achieve Govt. targets before 2050
- 22 Overflows working on between 2025-2030

Approximately **£220m investment** in next five years



[southernwater.co.uk/water-for-life/clean-rivers-and-seas-plan/map](https://southernwater.co.uk/water-for-life/clean-rivers-and-seas-plan/map)



# Rivers and Seas Watch

**WATER for LIFE** from Southern Water

Subscribe Feedback

Map Release History Learn More

Pre-release (Beta): your feedback will help us improve this new service

Enter address, bathing site or outfall name

**ST MARYS LANE TICEHURST**  
Feeds into: TRIBUTARY OF THE RIVER LIMDEN

**Confirmed or possible release in past 24 hours**  
There has been an unverified outfall release in the last 24 hours that is under review

Last release:

Started	Ended	Duration
28/06/24 11:20	Ongoing	3 hours 21 minutes

**HERNE BAY CENTRAL**

No release impacting bathing site  
There have been no recent outfall releases

Latest Impacting Release - from SWALECLIFFE NO1

Started	Ended	Duration
10/06/24 07:26	10/06/24 07:45	18 minutes

Latest Not Impacting Release - from SWALECLIFFE NO1

Started	Ended	Duration	Status
11/06/24 22:50	11/06/24 23:53	1 hours 2 minutes	Genuine

Release History

Show all  
Total: 616

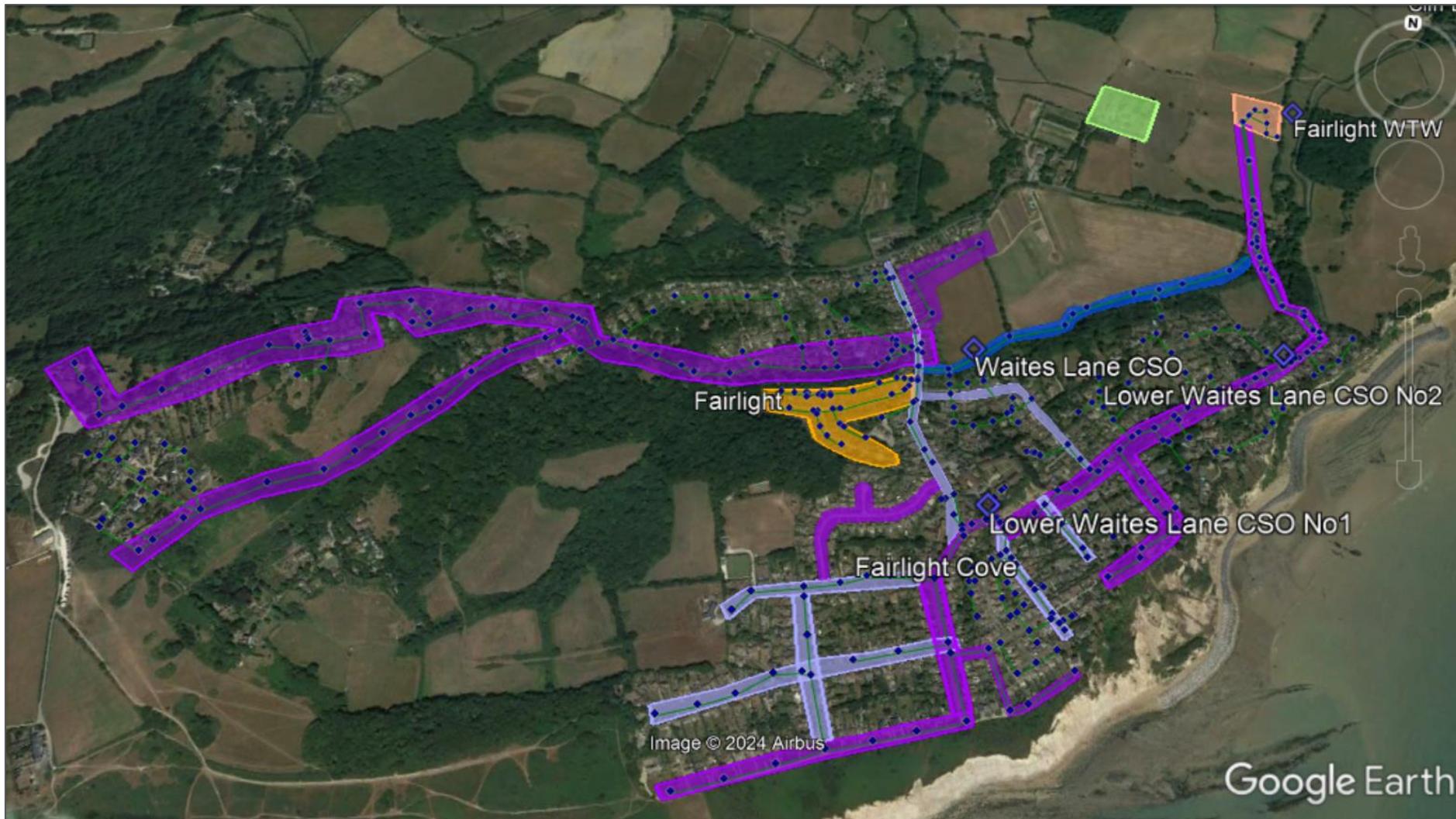
- Launching Rivers and Seas Watch imminently
- Co-created with customers and stakeholders
- All storm overflows included
- More transparency, better usability, more features

# Pathfinder work in Fairlight



# Surveys

- Dark Blue:** Wakehams Farm sewer lining
- Orange:** Knowle Road and Woodland Way sealed surface water connections
- Green Square:** Marsham Farm surveyed and redundant sewer being sealed and lined.
- Orange Square:** Fairlight WTW optimisation work and Capital Delivery scheme



**Purple:**  
Areas to be lined

**Light Blue:**  
Survey and investigations completed to ensure Highway surface water is separate from the foul network.



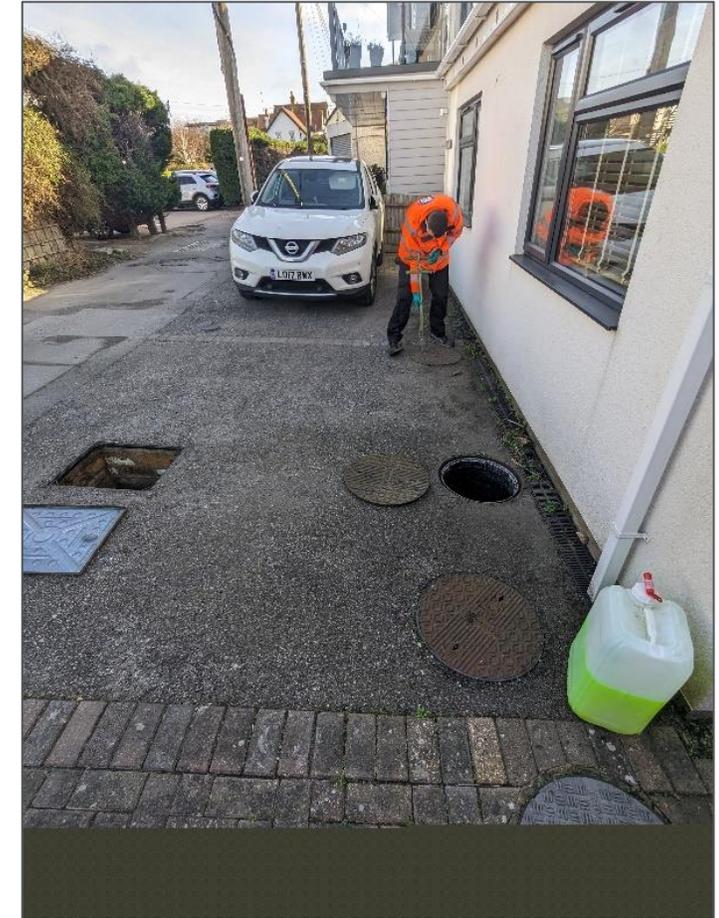
# What we have been doing



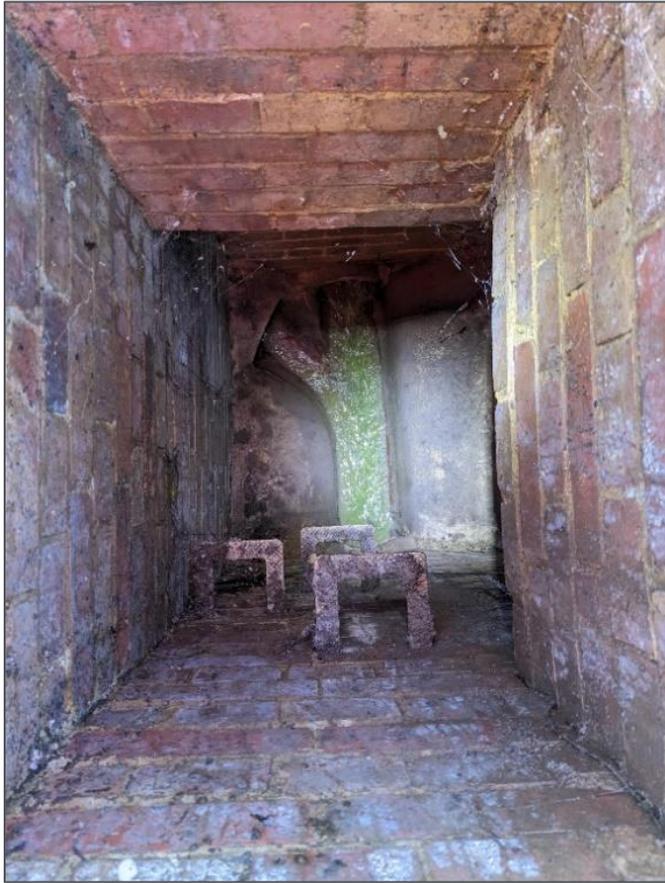
CCTV Surveys



# Catchment Investigations



# Surface Water Connections



- 8 surface water connections that could allow surface water into the foul system and vice versa
- These have now been separated managing another 0.3 hectares and easing the pressure on the sewer network

# Sewer Surveys

Section Inspection - 21/11/2023 - TQ87117701X							
Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
1	2	21/11/23	9:41	8297	No Rain Or Snow	Yes	TQ87117701X
Operator		Vehicle	Camera	Preset Length	Legal Status	Alternative ID	
Darren Wakefield		GK69 YWP	Main Line	0.50 m	Public Sewer	Z	
Town or Village:		Inspection Direction:	Downstream	Upstream Node:	TQ87117701		
Road:		Inspected Length:	70.07 m	Upstream Pipe Depth:	1.800 m		
Location:		Total Length:	70.07 m	Downstream Node:	TQ87118803		
Surface Type:		Joint Length:	0.80 m	Downstream Pipe Depth:	0.000 m		
Use:	Foul	Pipe Shape:	Circular				
Type of Pipe:	Gravity drain/sewer	Dia/Height:	175 mm				
Flow Control:	No flow control	Material:	Vitrified clay				
Year Constructed:	Not Specified	Lining Type:	No Lining				
Inspection Purpose:	Sample condition survey		Lining Material:	No Lining			
Comments:	See notes						
Recommendations:	See notes						
Scale:	1:289 <th>Position [m]</th> <th>Code</th> <th>Observation</th> <th>MPEG</th> <th>Photo</th> <th>Grade</th>	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 1.80 m							
TQ87117701	0.00	MH	Start node, manhole, reference: TQ87117701	00:00:00			
	0.00	WL	Water level, 5% of the vertical dimension	00:03:01			
	12.46	FMJ	Fractures, multiple at joint from 5 o'clock to 12 o'clock	00:01:41	TQ871177_01_Downs_tream_231	4 / 2	
	14.43	B	Broken pipe from 3 o'clock to 6 o'clock	00:02:03	TQ871177_01_Downs_tream_231	4	
	16.82	RPL	Point repair, localised lining from 12 o'clock to 12 o'clock	00:02:29	TQ871177_01_Downs_tream_231		
	18.12	MCVC	Pipe material changes to vitrified clay at this point	00:02:42			
	18.80	FMJ	Fractures, multiple at joint from 4 o'clock to 12 o'clock	00:03:01	TQ871177_01_Downs_tream_231	4 / 2	
	26.83	RFJ	Roots, fine at joint	00:03:53		2	
	26.83	FCJ	Fracture, circumferential at joint from 4 o'clock to 8 o'clock	00:03:57	TQ871177_01_Downs_tream_231	3 / 2	
	27.75	RFJ	Roots, fine at joint	00:04:07		2	
	28.69	RFJ	Roots, fine at joint	00:04:17		2	
	28.69	B	Broken pipe from 3 o'clock to 10 o'clock	00:04:23	TQ871177_01_Downs_tream_231	4	
	30.52	RFJ	Roots, fine at joint	00:04:38	TQ871177_01_Downs_tream_231	2	
	31.53	FCJ	Fracture, circumferential at joint from 2 o'clock to 11 o'clock	00:04:53	TQ871177_01_Downs_tream_231	3 / 2	
	33.41	RFJ	Roots, fine at joint	00:05:09		2	



TQ87117701\_Downstream\_231121\_094145\_8297\_60.jpg, 00:01:41, 12.46 m  
Fractures, multiple at joint from 5 o'clock to 12 o'clock



TQ87117701\_Downstream\_231121\_094145\_8297\_61.jpg, 00:02:03, 14.43 m  
Broken pipe from 3 o'clock to 6 o'clock



TQ87117701\_Downstream\_231121\_094145\_8297\_62.jpg, 00:02:29, 16.82 m  
Point repair, localised lining from 12 o'clock to 12 o'clock



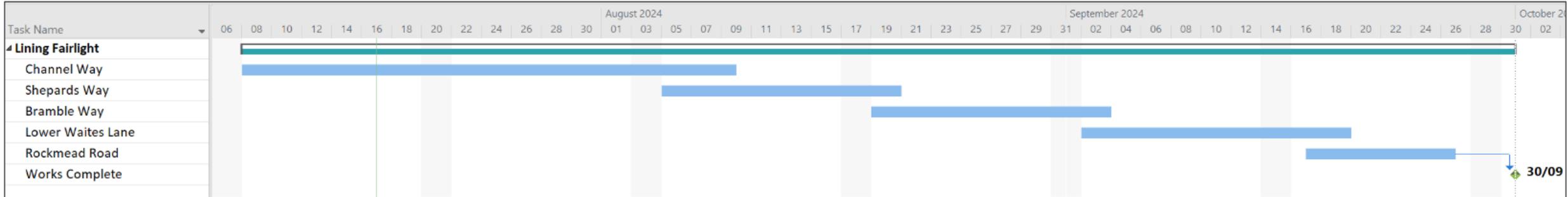
TQ87117701\_Downstream\_231121\_094145\_8297\_63.jpg, 00:03:01, 18.80 m  
Fractures, multiple at joint from 4 o'clock to 12 o'clock

## Survey works

- Over 5000m of the sewer network in Fairlight
- Root clearance and sewers cleaned



# Sewer Lining



# Marsham Farm



Next steps -

- Remedial work to the manhole
- Redundant part of the sewer will be isolated
- The remaining sewer from the farm connection to the treatment works will then be lined

Existing sewer line for the village will not be affected



# Slow the Flow



508 direct contacts made  
281 Large 200 litre water butts installed  
48 Slimline 100 litre water butts installed  
Managing 0.61 Hectares, 30,500 litres per rain event.



# Large roofs

Installation completed at The Cove  
Public House – 16 May 2024

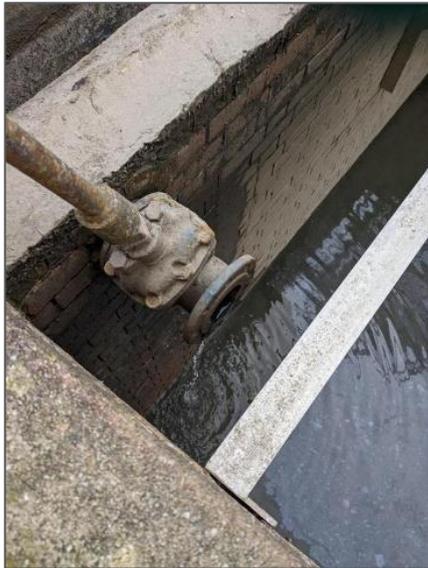
Connectivity Surveys and Investigations carried out on some of the larger properties in Fairlight:

- Shepherd court flats
- Fairlight gardens
- Large property at the end of Commanders walk

All of these properties have got separate surface water connections to soakaways.



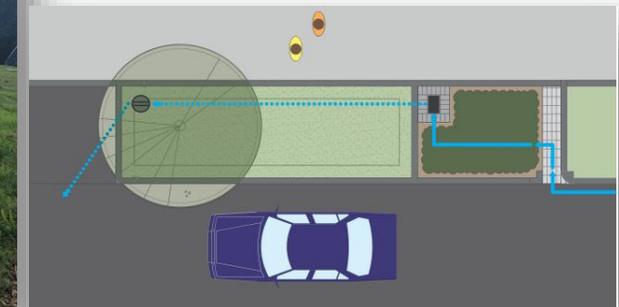
# Fairlight WTW Optimisation



- Working closely with the operational team who run the site
- Changes have been made to the storm tank return set point
- The storm tank pumps will empty the tanks sooner than before
- Maximising the storm tank capacity
- Further optimisation being explored
- Several areas in the inlet have been sealed to prevent ground water infiltration
- A redundant one-way valve leaking ground water into a storm tank has been sealed

# East Sussex Highways Programme

- Around 30-50% of surface water that enters the combined sewer network, comes from the highways
- Early discussions with East Sussex County Council to establish a highways SuDS programme – removing at least 65km of highways drainage from the combined sewer



# What will investment / activities in East Sussex look like for...

## By April 2025

- Fairlight lining works completed
- Fairlight WTW optimisation works completed
- Slow the flow initiatives in the wider catchment expanded.

## 2025-2030

- Approx. installing over 30,000 slow the flow measures such as water butts on domestic properties
- Lining and sealing over 5km of public and private sewers
- Managing over 65km of highway drainage
- Planting over 7000 trees



# Water – operational update

East Sussex

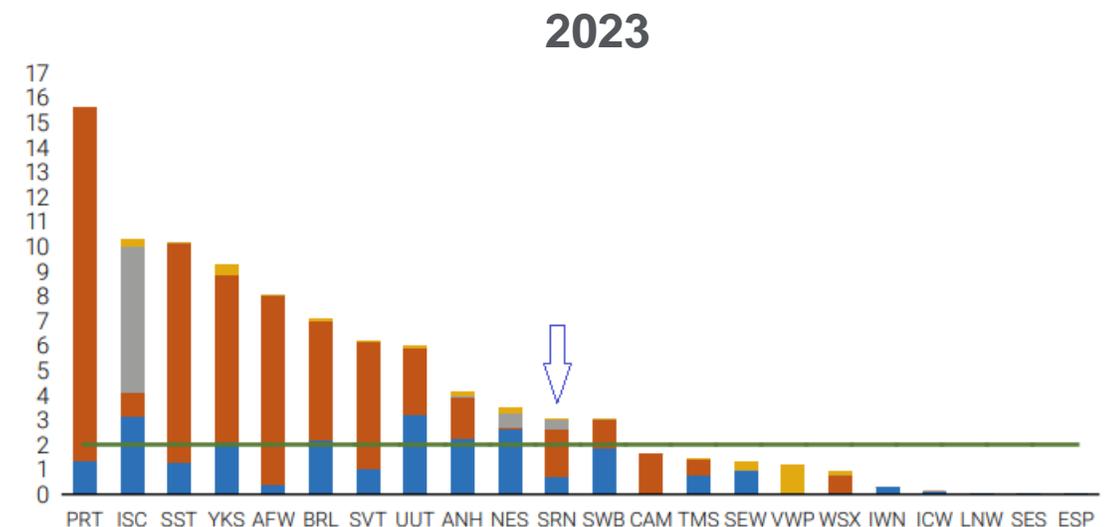
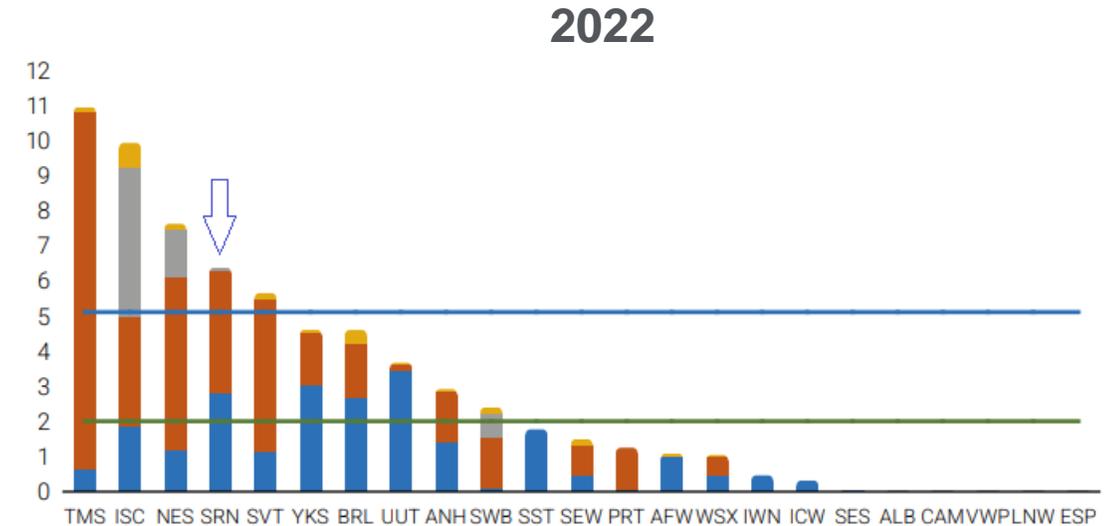


from  
**Southern  
Water** 

# Water production – our sites in East Sussex

- 14 Groundwater sites in East Sussex – 13 operational, 1 undergoing enabling works
- Very little operational outage due to good resilience in East Sussex
- Water production capacity 113Mld, current customer demand 77mld (YTD)

## Year-end CRI (compliance risk index) performance



# Water network performance

- Leakage in Sussex is currently 28 MI/d, driving an increase in our proactive leakage detection
- Immediate investment in 2024 to make short-term resilience improvements, including enhanced find and fix leak repairs
- We are doing this by identifying small leaks using the latest innovative satellite technology, before repairing them under controlled conditions when customers' water supply is not at risk.
- Increase in water network inspector resource over the past 12 months to drive more network calming schemes (pressure management and transient mitigation)



# Leakage in Sussex

## Total leak repairs 2022/23

	Sussex
Bursts	663
Customer leaks	256
Network leaks	7,576
Total	8,495

## Total leak repairs 2023/24

	Sussex
Bursts	608
Customer leaks	104
Network leaks	7,496
Total	8,208

# Improving and investing in our assets

- To reduce water supply disruption and to improve customer experience, Sussex will receive a huge injection of investment in the coming years
- **In the past 4 years:**
- Invested c£4m addressing resilience and water quality challenges at both Brede WSW and Beauport WSW in the Hastings area
- **In the next 5 years:**
- Invest c£35m on key ground water supply works in Sussex, including Brede WSW and Beauport WSW to manage raw water deterioration challenges, and reduce unnecessary customer interruptions



# Improving and investing in our assets

- In the next 5 years:

- Planning to replace over 300km of water mains to address both leakage, to protect future resources, and aged assets. Sussex will be part of the targeted replacement programme. Specific areas TBC. This also includes targeted investment for the 800mm pumping main.

- South East region is heavily water stressed and we intend to invest c£200m to safeguard resources by developing external potable bulk supply/transfers, reintroducing a key groundwater site in **Brighton**, along with embracing water reuse technology



# Our work in the community

Dan Rodrigues, Community Engagement Officer

Charlotte Cramer, Customer Experience Manager



# Community Engagement – East Sussex

Improving outcomes and building skills for our community

## New Wave Education

- 81K Young people reached in past 18 months through the programme.
- Curriculum linked resources
  - We have visited **25** schools reaching **1374** young people
  - Online resources **89** schools downloaded reaching **7353** pupils
  - 9 Apprenticeships in East Sussex
  - Dare to Dream mentor programme supporting **15** young people



Making the Community stronger

## Outreach Activity

- 49 engagements this year.
- Affordability drop ins
- Sewer Wise talks and visits
- Clean Rivers and Seas Taskforce

“Our ability to provide a warm, inviting, comfortable environment for the people who come to participate in activities at the Community Centre is fundamental for us. Having practical help to offset our energy costs will ensure the groups will be able to continue to use the Community Centre in the winter months ahead.” June Pratley (Chair of WHDCA)



Caring for the Environment together

## Outdoor learning

- School Tours – Wastewater sites
- Peacehaven open since Feb 2024
  - Key stages 2 and 3

## Corporate volunteering

- 366 hours given back in East Sussex in 2023-2024
- Collecting litter
- Brede stream giants



Demonstrating our role as a good corporate citizen

## Grants

- Awarded £116K in since 2020
- Young Pollinators regional charity partner East Sussex
- Hardships Grants (low income households)
- Business partnership fund – water Saving schemes
- Community centre grants x 8 opening again in Autumn

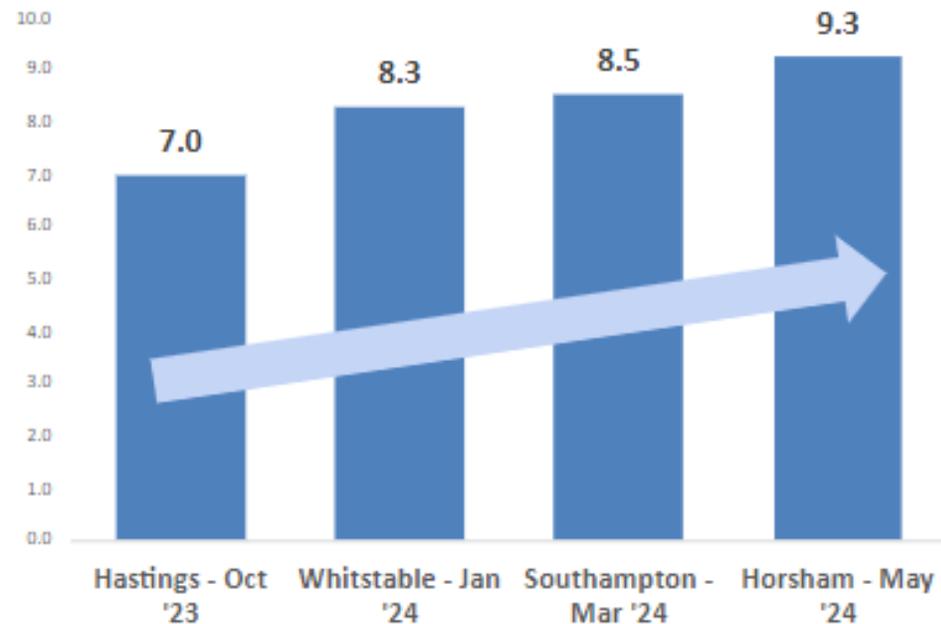




*“Website didn’t answer my query, but this did right away”*

### Overall Rating of Events

How did you find the event?



## Your Water Matters Drop Ins

1. Hastings – Oct '23
2. Whitstable – Jan '24
3. Southampton – Mar '24
4. Horsham – May '24
5. Hastings\* – Sep '24
6. Brighton – Sep '24
7. Thanet – Oct '24
8. Hampshire - South – Nov '24
9. Chatham – Jan '25
10. IOW – Mar '25

*Ensuring a spread across the region of high population areas*

**Wider Engagement:**

- From Jul '25 - Regional stakeholder workshops
- Regional 'Your water your say' sessions (Southern Water led)

*Highest % of lower income customers to greater provide financial support*



*\*Trialling a bespoke **dedicated** session – linked to operational incidents*

AOB



from  
**Southern  
Water** 

# Appendix



# Water Resources Management Plan (WRMP)

July 2024 update



# Our Water resources plan is ambitious and challenging

- Scale of our Water Resources Management Plan (WRMP) larger than other companies and matches regional challenges
  - We need to identify alternative sources for 2/3rds of supplies across our area of operation by 2075
  - We will be delivering significant environmental improvements and future resilience
- Our revised draft WRMP has been submitted to Defra:
  - We've worked with the Environment Agency and Natural England to understand and address technical issues
- Awaiting Defra decision before we can proceed to consultation
  - There are possible impacts from election period, September start estimated
  - A full 12 week consultation planned
  - Please get involved, we'd love to hear your thoughts!**
- Responses to consultation around January, start date dependant

## Our Water Resource Plan

Investment area*	AMP8	
Smart metering and water efficiency	£186m	We will be smart metering all our customers to help them manage usage and identify leakage
Managing leakage	£239m	5 Water reuse schemes providing new sources of water through recycled water
Transfer pipelines	£164m	We are delivering a new reservoir with Portsmouth Water as part of an integrated system for Hampshire
5 Water reuse plants	£651m	Replacing 300km of water mains to drive our lowest levels of leakage and provide increased resilience
Short term drought mitigation options	£91m	We are working on collaboratively on long term plans to bring water from a new reservoir proposed in the Thames area
Other supply schemes and long-term transfers	£326m	
Havant Thicket reservoir	£134m	
<b>Total</b>	<b>£1,791m</b>	

\*As submitted in Oct. 2023 and subject to finalising the revised draft WRMP24

\*\* need to understand the impacts on timeline of general election

# Risks remain in our plan that we will need to continue to develop mitigation for collaboratively with regulators and stakeholders

Issue	Risk	Mitigation	Other actions
Risk of drought orders and permits in the Western Area post 2030 until Western Area solution is delivered	Risk we won't get these approved if required	We have proposed short term supply options covering more than half the deficit	Maintain adaptability in plan for new mitigation solutions alongside needed review of the S20 agreement
Water neutrality in the Central Area	Water neutrality remains a challenge in Sussex North	Accelerated package plant for Weir Wood by 2025, alongside smaller schemes for headroom and ongoing work with LA's	Assessing the potential of an intertidal abstraction options ( <i>will not be ready for consultation</i> )
5 significant recycling schemes key to delivery between 2030 - 2033	Gated processes alongside consenting, and permitting	As part of PR24 schemes planned for DPC style route and proposed RAPID process	Maintaining current delivery activities across all schemes, Sandown and Budds well progressed and land purchased
Significant investment in future proposed transfers – SESRO / Thames to Southern needed to 2040+	Risk of delay to these very large complex projects	We are now leading on the T2S project and embedded in the core team for SESRO	Remain as key deliverables in the plan to be consulted on – aligned to Thames plan
Significant leakage reductions required by 2030	Risk we don't deliver leakage start point by 2025	Additional investment in our execution plan driving for end of AMP target level	Leakage strategy review underway alongside enabling key deliverables on mains replacement and meter rollout
Significant customer demand reductions required by 2030	Risk that we don't see savings expected	Enabling Investment targeted (metering) in the high-risk areas 1 <sup>st</sup> – Sussex North and Hampshire	National Water Efficiency Fund and group established, key to recognising the true level of benefit possible and gov. requirements

# East Sussex bathing waters



from  
**Southern  
Water** 

# East Sussex

Bathing Water	District	No. samples 2024	Samples above Excellent threshold	% Excellent samples	2023	Projected 2024	Headroom 2023	Projected 2024 headroom	Change	Comment	Explanation	
Saltdean	The City of Brighton and Hove	30	0	100%	Excellent	Excellent	Excellent	76%	76%	↔	All samples Excellent so far.	
Brighton Kemptown					Excellent	Excellent	Excellent	28%	27%	↔	All samples Excellent so far.	
Brighton Central					Good	Good	Good	36%	34%	↔	High sample in 2022 led to Good classification. All samples Excellent so far.	Investigation in AMP8. Recoverable by end of 2025.
Hove					Excellent	Excellent	Excellent	35%	44%	↑	All samples Excellent so far.	
Rottingdean Beach					N/A	N/A	Excellent	N/A	92%	N/A	Newly designated. Excellent samples so far.	Investigation in AMP8
Eastbourne	Eastbourne	6	0	100%	Sufficient	Good	Good	8%	9%	↔	All samples Excellent so far.	Misconnections work has identified and resolved issues
Pevensey Bay	Wealden	10	0	100%	Good	Good	Good	11%	18%	↑	Long term improvement. All samples Excellent so far.	Improvement at Hailsham North WTW
Birling Gap					Excellent	Excellent	Excellent	44%	46%	↔	All samples Excellent so far.	
Hastings Pelham Beach	Hastings	13	0	100%	Good	Good	Excellent	48%	54%	↑	Long term improvement. All samples Excellent so far.	Much misconnections work. Sewer rehabilitation
St Leonards					Excellent	Excellent	Excellent	43%	38%	↔	All samples Excellent so far.	
Seaford	Lewes	6	0	100%	Excellent	Excellent	Excellent	51%	51%	↔	All samples Excellent so far.	
Camber	Rother	22	1	95%	Good	Good	Good	22%	16%	↓	One high sample - no overflow operation	
Winchelsea					Excellent	Good	Good	44%	43%	↔	All samples Excellent so far.	
Bexhill					Sufficient	Sufficient	Sufficient	9%	8%	↔	Long term improvement. All samples Excellent so far.	Much misconnections work. Sewer rehabilitation
Norman's Bay					Good	Excellent	Excellent	15%	9%	↓	Few Southern Water assets. All samples Excellent so far.	Investigation in AMP8.

- Eastbourne and Hasting Pelham Beach have shown long term improvement, as a result of detailed misconnections and sewer rehabilitation work.
- Pevensey Bay has shown long term improvement, probably as a result of improvements at Hailsham North WTW.
- Investigations in AMP8 at Brighton Central, Rottingdean and Norman's Bay.



# Future Growth and Developer Services

Working with planners and developers to enable a water resilient future



# Our Delivery Teams

1

## Future Growth Team

- ✓ Local plan consultations
- ✓ Neighbourhood plan consultations
- ✓ Planning application referrals

2

## Developer Services

- ✓ Sewer & Water main diversions/requisition/'build over' applications
- ✓ Sewer & Water main connection applications

3

## Asset Strategy & Planning

- ✓ Plan infrastructure growth schemes as required

4

## Capital Delivery

- ✓ Deliver capital schemes, from diversions, connection & requisitions, to larger infrastructure growth schemes

Developer



Sustainable Development

# Future Growth Team - Introduction

- We are a Statutory Consultee on Local and Neighbourhood Plans (5–20-year plans) & a Non-Statutory Consultee on individual Planning Applications (2–5-year plans)
- For Local Plans we seek to influence **policy provisions** that mitigate the impact of the proposed housing allocations on the operation of our infrastructure, promotes water efficiency & protects water quality
- For Planning Applications, should there be insufficient capacity to serve the development, we will request **planning conditions** to allow for the occupancy of the development to be **phased** in line with the upgrade to our infrastructure
- This is required as we have limited powers to prevent connections to our network, even when capacity is limited; for example, under Section 106 of the Water Industry Act, developers have a right to connect foul drainage on 21 days' notice



# Developer Services - Introduction

- We administer developer applications for water & wastewater connections, diversions, requisitions and 'build overs' within regulatory levels of service [Water UK Developer Services](#)
- The above provides the *quantitative* measure for the Developer Measure of Experience (DMEX) alongside quarterly developer questionnaires, which provide the *qualitative* measure; these measures are combined to provide a **DMEX score** - [Customer and developer services experience – Ofwat](#),
- The DMEX score determines our position on the Ofwat DMEX table, which in turn determines the associated financial rewards or penalties for water companies
- We also provide technical approval & guidance for developer plans; this is supported by industry & national technical standards
- Aswell as, receiving revenue from developers through application fees, including the developer infrastructure charge, which is utilised for capital growth schemes where required



# Our Policy Statement on Sustainable Development

We have the following expectations for developers when building new homes and commercial buildings:



**Water efficiency** – designs for developments must meet 100 litres per person per day.



**Water efficiency labelling** – water consumptive appliances fitted by developers will use water efficiency labelling.



**Water neutrality** – developments in Sussex North must demonstrate Water Neutrality for any new development with designs meeting 85 litres per person per day.



**Smart metering** – Our programme to roll out smart metering for new and existing connections is in development.



**Sewer connections** – Connections from new developments to Foul or Combined Sewers for surface water runoff will not be accepted unless all options to separate surface water have been applied.



**Sustainable drainage** – Designs must include features to slow the flow of surface water runoff as close to the source as possible, for example, green roofs, permeable paving, rain gardens and water butts.



**Water recycling** – incorporate rainwater capture and grey water recycling systems into designs, linking it to blue-green infrastructure and joining or establishing partnerships where practical to eliminate rainwater from drains.



**Nutrient Neutrality** – developments in the Stodmarsh area in Kent and parts of South Hampshire and Chichester new developments are required to demonstrate Nutrient Neutrality.



**Water Offsetting** – where opportunities to offset water consumption are available these will be adopted as a planning gain principle.

These expectations contribute to our transformational programmes:



Target 100



Sustainable Drainage



Catchment First



Network 2030



from  
Southern  
Water

# Sustainable Development - Industry Updates

- **Surface Water:** Sustainable drainage systems are currently optional, however the proposed inclusion of Schedule 3 to the Flood and Water Management Act 2010 will make it mandatory to install sustainable drainage to manage surface water on a new development (*this has been delayed due to the general election*) [New approach to sustainable drainage set to reduce flood risk and clean up rivers - GOV.UK \(www.gov.uk\)](#)
- **Government's Environmental Improvement Plan 2023:** Working with the Future Homes Hub and other stakeholders, Government have developed a roadmap on water efficiency in new developments and retrofits, proposing 10 actions over the next decade [Environmental Improvement Plan 2023 - GOV.UK \(www.gov.uk\)](#)
- **Building Regs Water Efficiency Review – Feb 2024:** Report commissioned by Water Wise and delivered by Welsh Water & Water Resource Centre, found the need to address deeper concerns related to enforcement and compliance of building regulations [Building Regulations Water Efficiency Review – Database WW \(waterwise.org.uk\)](#)



# Wastewater Asset Strategy and Planning



from  
**Southern  
Water** 

# There are four key themes encompassing our delivery plans

## The Challenges

Climate Change



Population Growth



Environmental Capacity & Resilience



Affordability



**Network flow management to reduce flooding and spills**

- **Surface water separation** and **sustainable drainage systems** to keep rainwater out of sewers and prevent spills from storm overflows
- Build **storage tanks** where other methods do not deliver.
- **Smart networks** - sewer level monitors with artificial intelligence
- Increasing **sewer capacity** for new homes and businesses

**Recycling wastewater and nutrient removal**

- Enhancing wastewater treatment to remove **nutrients and chemicals**
- Increasing **wastewater treatment** capacity for new homes and businesses
- Additional **UV treatment** to improve water quality for shellfish waters

**Asset health and resilience**

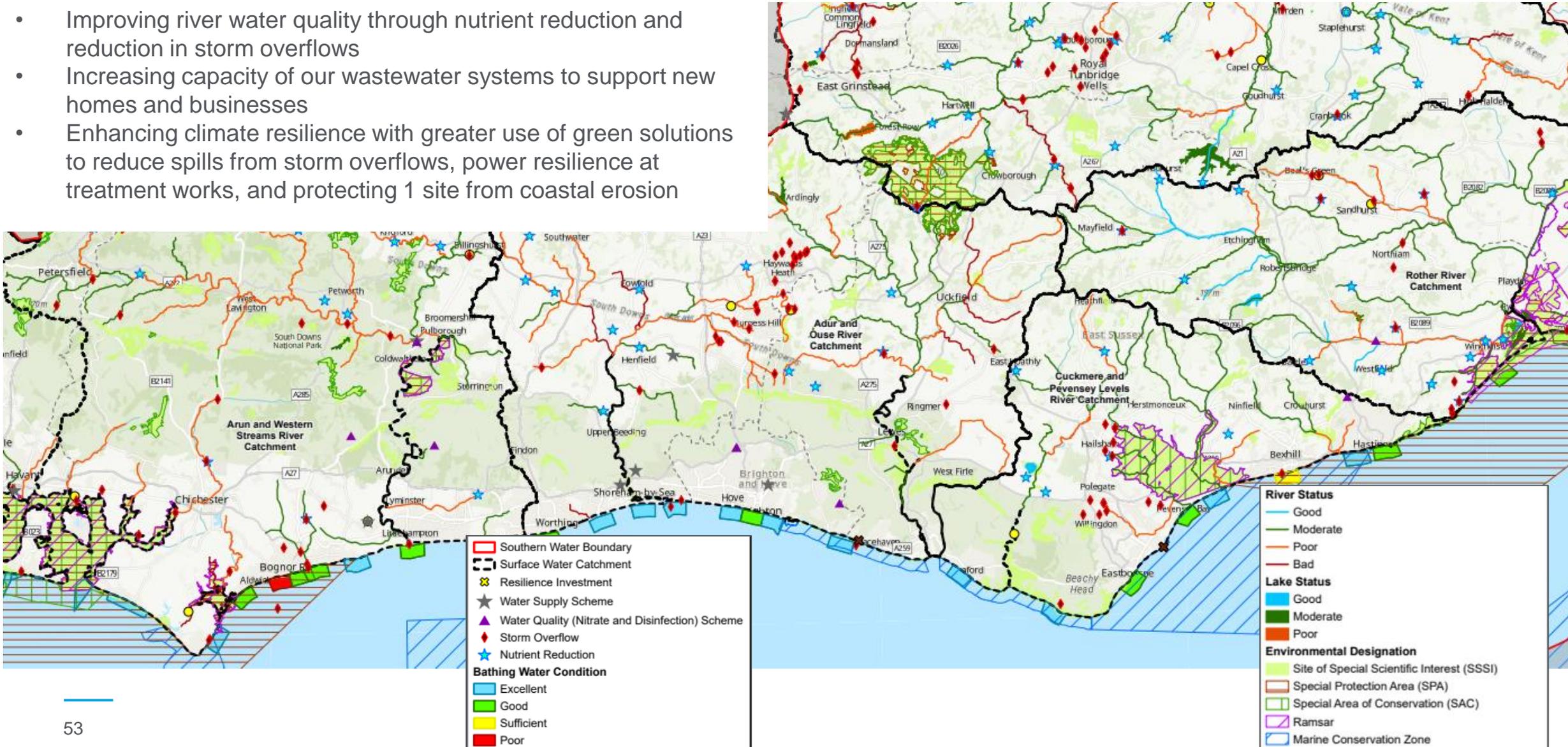
- Enhanced **maintenance programmes** to improve resilience
- Improving **resilience** to power outages, increasing heat and flood risks
- **Partnership working** to address coastal erosion
- Enhanced **sewer sealing** to improve resilience to high groundwater

**Bioresources**

- Consolidate treatment sites and move to **Advanced Digestion** technology
- Increased biogas production and **renewable energy**
- Explore **Advanced Thermal conversion** technology

# Sussex environmental schemes – key areas of focus

- Improving river water quality through nutrient reduction and reduction in storm overflows
- Increasing capacity of our wastewater systems to support new homes and businesses
- Enhancing climate resilience with greater use of green solutions to reduce spills from storm overflows, power resilience at treatment works, and protecting 1 site from coastal erosion



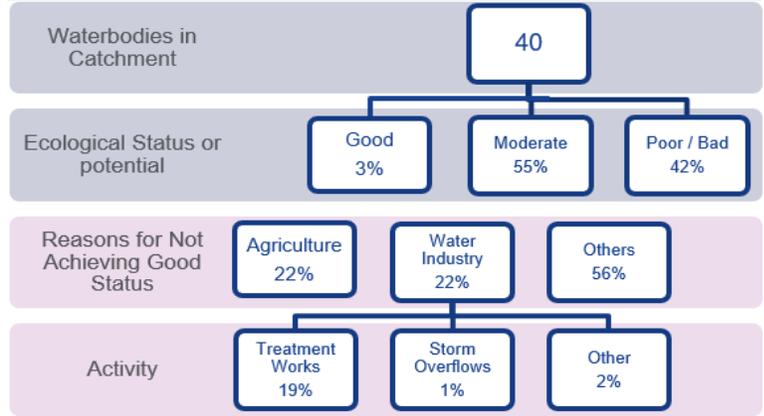
# Sussex enhancements

(slide 1 of 2)



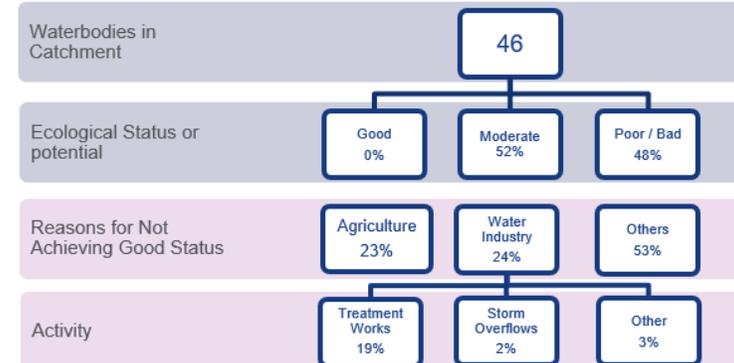
## Arun & Western Streams

- Nutrient reduction at 13 sites
- Storm overflows at 28 sites
- 5 growth sites
- Length of river improved 145km
- 54% reduction in storm overflow discharges
- Total environmental investment £330m



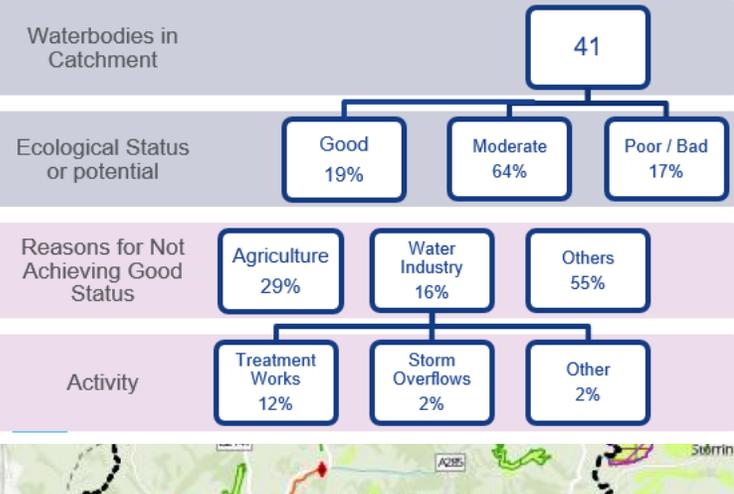
## Adur & Ouse

- Nutrient reduction at 13 sites
- Storm overflows at 34 sites
- 3 growth sites
- 1 coastal resilience scheme
- Length of river improved 135km
- 34% reduction in storm overflow discharges
- Total environmental investment £260m



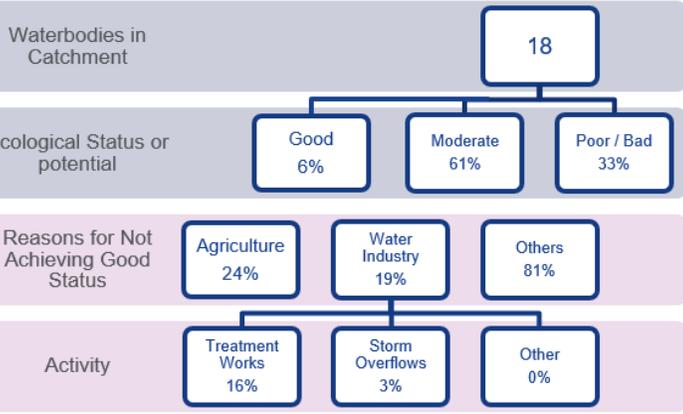
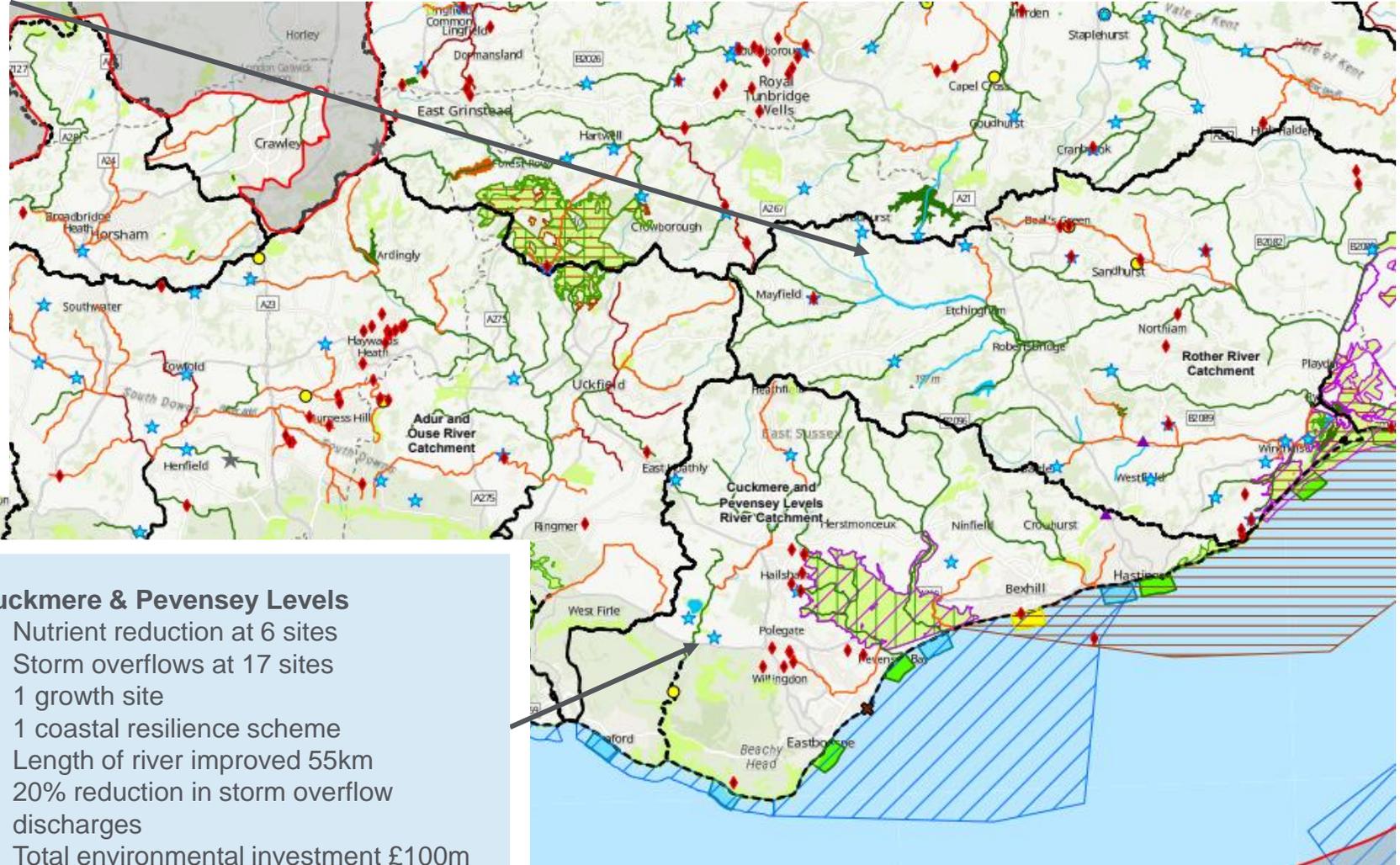
## Rother

- Nutrient reduction at 18 sites
- Storm overflows at 11 sites
- 4 growth sites
- Power resilience at 2 site
- Length of river improved 112km
- 36% reduction in storm overflow discharges
- Total environmental investment £130m



# Sussex enhancements

(slide 2 of 2)



## Cuckmere & Pevensey Levels

- Nutrient reduction at 6 sites
- Storm overflows at 17 sites
- 1 growth site
- 1 coastal resilience scheme
- Length of river improved 55km
- 20% reduction in storm overflow discharges
- Total environmental investment £100m

# Nature-based solutions as a first choice

- Defra principle: "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"

How:

- Separating and "slowing the flow" at source where the rain falls
- Reducing groundwater infiltration into sewers

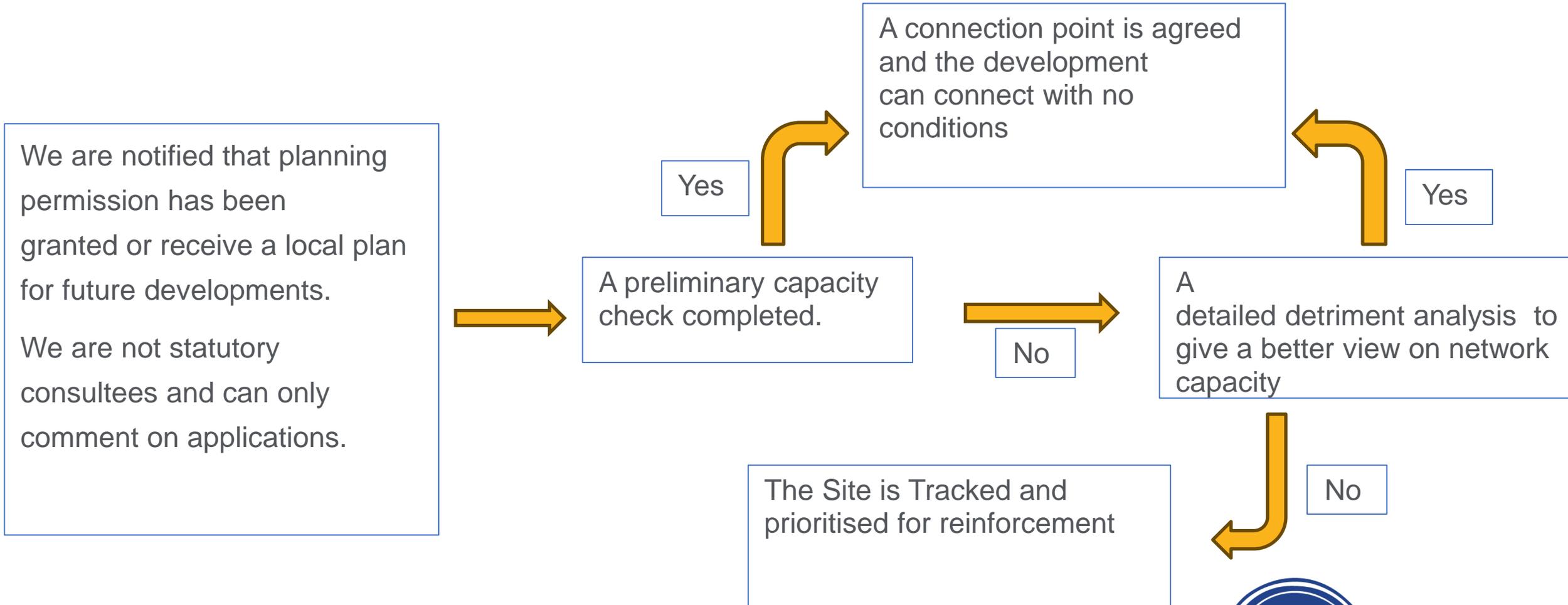
Approach:

- Catchment and nature-based solutions
- Wetlands, swales, ponds
- Rainwater capture and harvesting
- Green roofs, planters, water butts



Lavant WTW wetland: using nature to prevent harm from discharges from the storm overflow

# Current Growth Process



# Prioritising Growth

## How:

1. Development size and expected build out.
2. Developments impact on existing issues
3. Spread of growth and potential 'Hot Spots'
4. Working alongside Councils and Developers to understand when large strategic developments will start.
5. Having a Local Plan is key to having well informed network growth schemes

## Approach:

1. Reduce Surface water inundation & Ground water infiltration
2. Remove existing rainwater connections and facilitate the building of surface water drainage systems to local environment
3. Removal of system pinch points that cause hydraulic issues
4. Increase storage within the system
5. Upsize sewers



# Catchment Resilience



from  
**Southern  
Water** 

# Catchment Resilience

- Protecting the environment by ensuring abstractions are sustainable and enhancing biodiversity
- Protecting water quality and the environment by working with stakeholders including agriculture
- Safeguarding our drinking water supplies by making our catchments more resilient
- Working with Catchment Partnerships



# Our priority water areas



# East Sussex

## **Water Quality**

- Nitrate is impacting our groundwater drinking water sources, and we are working in partnership with landowners and farmers and Brighton & Hove City Council to reduce the risk.

## **Water Resources**

- We are creating a sustainable abstraction regime to protect important habitats.
- We have delivered river environmental enhancements for ecological resilience on the Lewes Winterbourne.

## **Environment Strategy**

- We are developing a holistic Environment Strategy to help define our strategic environmental ambition.
- We are embedding natural capital approaches within our decision making.
- We need to deliver a programme of Biodiversity Net Gain (BNG).



# Lewes Winterbourne AMP7 WINEP Implementation Project 2023

The Lewes Winterbourne, a tributary of the River Ouse in East Sussex.

We implemented in stream improvements on land owned by Lewes District Council to provide long-term ecological benefits by reintroducing natural features, creating improved flow conditions for the Chalk stream ecology, and enhancing public access for the local community to enjoy the river.



# Incident Response



from  
**Southern  
Water** 

# Improvements Made

## Bottled Water



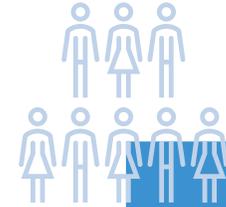
- Increased amount of water available per day to 400,000 litres. Equivalent to water for 40,000 people.
- Identified, visited and gained pre-approval for 127 bottled water supersites.
- Created a process for using small community hubs to distribute water.
- Increased our rota of Southern Water employees to manage bottled water stations.
- Secured funding to create a rota of Southern Water colleagues to distribute water at Bottled Water Stations, reducing the need for external volunteers.

## Vulnerable Customers



- Introduced a secondary supplier to complete doorstep deliveries to vulnerable customers.
- Increased the number of deliveries that can be made – over 12,000 properties delivered to in 1 day in Hasting's incident.
- Introduced a proof of delivery system with both suppliers to ensure we are accountable and transparent.
- Increased internal bottled water storage to speed up replenishment of water.
- Encouraged suppliers to open a water storage facility in Hampshire – 400 pallets stored in Fareham.

## Engagement



- Commitment to regular meetings with Local Authorities.
- Involvement and collaboration on planning, including agreement on Bottled Water Stations outside of incidents.
- Attendance at Water Disruption Meetings, where information is shared, and processes improved.
- Involved in the National Digital Twin data sharing pilot in Hampshire.
- Invitations shared to participate in exercises and test situations, specific to a response in the Marchwood area.

# Ongoing Improvements

## Water Distribution



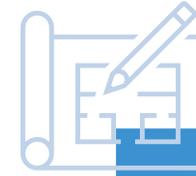
- Investment in becoming more self-sufficient; Increased water storage and internal capabilities to distribute water. Part of PR24 investments.
- Ability to better support key customers, such as schools and care homes with “Always in Supply devices”.
- Introducing improved internal and external traffic management and safety measures at our Bottled Water Stations.
- Conduct a live exercise with Water Direct and Cobra Hydro in the Marchwood area.

## Vulnerable Customers



- Introduce an improved internal management system for vulnerable customers to enable a more efficient and accurate delivery process, with live delivery status and post incident reporting.
- Ensure bottled water stations are located in such a way to accommodate and support all customers, including the use of Community Hubs.
- Incorporate an information leaflet with the first PSR water delivery, to explain why water is being delivered.
- Increase pre-identified vulnerable customers through promotion of the PSR.

## Planning



- Engagement with vulnerable sites such as schools to understand their exact needs in a loss of supply incident to prevent closure.
- Combine alternative water actions into one clear plan in collaboration and agreement with localised partners.
- Increase available resources for incidents by continuing to build resilience into our rotas.
- Agree all locations to be used to distribute water in order of preference, including operational requirements needed to open and be successful.