

Pennon Stakeholder Forum

Let's Talk Water

Thursday 14 September

14:00 – 16:00



Welcome

You have told us that you want to hear more about our work to reduce storm overflow spills and build drought resilience across our region

So, this 6th Let's Talk Water event will be a 2-hour webinar to share with you some of the projects and initiatives we are delivering in these two key areas

Housekeeping

- Please keep cameras off and muted
- If you have questions, please post them in the chat and we will ask during the Q&A
- We will record the session (hence cameras off). Any objections, please let us know.
- *Please feel free to introduce yourselves in the chat*



What we will cover today



- 1. Welcome** Carolyn Cadman

- 2. Q&A with Susan Davy, Pennon CEO** Carolyn Cadman & Susan Davy

- 3. Reducing storm overflow use in Falmouth** Ed O'Brian

- 4. Supporting water quality in inland bathing waters** Nick Paling

- 5. Working with the local community in Newquay & Lyme Regis** Vicky Garner

- 6. Building drought resilience – incl. desalination** Jo Ecroyd

- 7. Resilient water supplies for the region** Nick Paling

- 8. Save Every Drop** Matt Watts

Q&A with Susan Davy

Pennon CEO

Carolyn Cadman

Director of Natural Resources



Storm Overflows

Accelerated Delivery - Falmouth

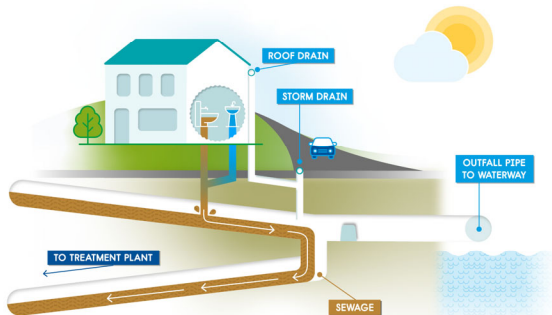
Ed O'Brien

Stantec Asset Management

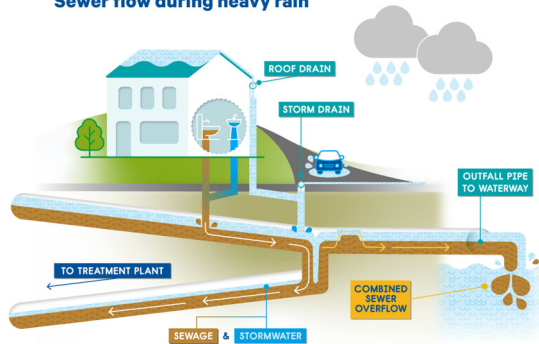


Recap - Storm Overflows – what are they?

Sewer flow during dry weather



Sewer flow during heavy rain



Recap - Investing to reduce storm overflows

- Waterfit investment of £330m reducing average spills per location to 20 per year by 2025.
- Accelerated delivery investment of £70m to start by 2025
- Significant investment planned for next 25 years £7.5bn
- Storm overflow element £3bn so all overflows spill less than 10 times a year by 2040 (10 yrs ahead of target)



Accelerated Investment

Defra plan announced 3rd April 2023



Department
for Environment
Food & Rural Affairs

South West Water: “*upgrading assets and storage to reduce discharges in Falmouth and Sidmouth (£70 million)*”

15 storm overflows, 9 in Falmouth 6 in Sidmouth

24 NORTH PARADE_CSO_FALMOUTH
FALMOUTH STW_SO_FALMOUTH
GREENBANK GARDENS_CSO_FALMOUTH
GROVE PLACE NO. 1_CSO_FALMOUTH
NORTH PARADE_CSO_FALMOUTH
OLD HILL SPS_PSCSOEO_FALMOUTH
PR OF WALES PIER SPS_PSCSOEO_FALMOUTH
QUEEN MARY GARDENS SPS_PSCSOEO_FALMOUTH
SWANVALE SPS_PSCSOEO_FALMOUTH
FORTESCUE_CSO_SIDMOUTH
MANSTONE LN_CSO_SIDMOUTH
TIPTON ST JOHN SPS_CSOEO_SIDMOUTH
THE HAM SPST_PSCSOEO_SIDMOUTH
THE HAM SPST_PSCSOEO_SIDMOUTH
THE HAM SPST_PSCSOEO_SIDMOUTH2

£23m accelerated into 23-24 and 24-25, completion 27-28

Line description	Units	2023-24	2024-25	2025-26	2026-27	2027-28	Total
A Scheme key characteristics							
1 Expenditure per year	£m	9.750	13.250	19.500	15.250	12.300	70.000
2 Storm Overflows improved	Nr	0	0	4	5	6	15
3 Spill reduction	Nr	0	0	110	220	330	330

Plan to ask for further transition funding to get started on planned investment for 2025-2030



Falmouth case study

Options Development - Modelling

Hydraulic modelling



- Checked model spills v monitored spills
- Adjusted to improve fit

River Impact Optimisation Tool

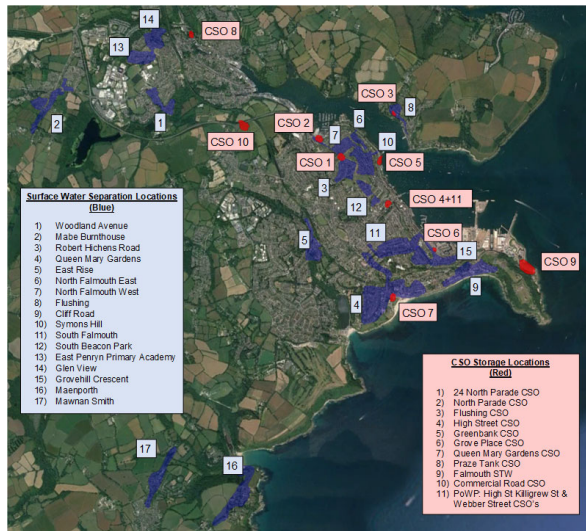
Assets	BASE 2050		FFT 10%		FFT 20%		FFT 50%		SWS 10%		SWS 20%		SWS 50%		Info 10%		Info 20%		Info 50%	
	spill	storage	spill	storage	spill	storage	spill	storage	spills	storage	spill	storage	spill	storage	spill	storage	spill	storage	spill	storage
Q/S 58 THOMAS ST_CSO_PENRYN	3	0							1	0	1	0	0	0	3	0	3	0	3	0
PRAZE TANK_CSO_PENRYN	119	960							116	880	114	800	105	635	105	895	96	780	71	560
MARKET ST_CSO_FALMOUTH	4	0							3	0	2	0	0	0	4	0	3	0	4	0
OLD HILL SPS_PSCSOED_FALMOUTH	10	2							10	0	9	0	7	0	10	2	10	2	10	0
OLD HILL_CSO_CSO_FALMOUTH	4	0							3	0	2	0	0	0	4	0	4	0	4	0
NORTH PARADE_CSO_FALMOUTH	23	19							19	9	13	6	5	0	23	18	23	18	23	18
GREENBANK GARDENS_CSO_FALMOUTH	75	500							69	490	64	270	39	58	74	490	74	490	74	445
24 NORTH PARADE_CSO_FALMOUTH	54	57							50	45	44	36	20	9	54	57	54	57	54	57
GROVE PLACE NO.1_CSO_FALMOUTH	73	940							66	790	58	600	33	160	73	940	72	940	72	930
TEHIDY TERRACE_CSO_FALMOUTH	11	3							9	0	8	0	4	0	10	1	10	1	10	1
FALMOUTH DOCKS SPST_PSCSOED_FALMOUTH	0	0							0	0	0	0	0	0	0	0	0	0	0	0
SWANVALE SPS_PSCSOED_FALMOUTH	7	0							5	0	4	0	1	0	7	0	7	0	5	0
FLUSHING SPST_PSCSOED_FALMOUTH	149	420							148	415	147	410	147	389	149	385	148	370	148	335
FALMOUTH STW_SSO_FALMOUTH	26	4500	26	2700	25	1900	24	1050	21	3600	17	1900	4	0	25	4100	24	4100	22	2400
COMMERCIAL RD_CSO_PENRYN	75	1570							70	1325	61	1080	39	490	76	1540	75	1540	75	1500
QUEEN MARY GARDENS SPS_PSCSOED_FALMOUTH	83	220							75	180	67	148	42	58	81	220	80	220	81	220
KILLIGREW ST_CSO_FALMOUTH	63	268							55	217	49	168	23	51	62	264	63	265	62	265
HIGH ST_CSO_FALMOUTH	74	242							67	190	61	160	36	82	73	240	72	240	73	237
PR OF WALES PIER SPS_PSCSOED_FALMOUTH	36	475							31	340	25	205	10	12	36	475	36	475	36	470
Totals	888	10176	26	2700	25	1900	24	1050	819	6481	746	5784	516	1944	871	10128	855	9498	825	7488

- Confirmed SOs that need intervention
- Indicative solutions to get to < 10 spills

Falmouth case study

Options Development - Solutions

- Desk top studies & analysis
- Site visits
- Stakeholder engagement
 - Environment Agency
 - Cornwall Council
 - Falmouth Town Council
 - Penryn Town Council
- 11 storage solutions for 14 SOs
- 17 surface water separation (SWS) locations
 - Concept drawings
 - Activity schedules
 - Costs & Benefits
 - Risks & Opportunities



Falmouth case study

Options Development - Solutions



SuDS – with Groundwork



Subcatchment 11: South Falmouth
13.2 Photo Assessment

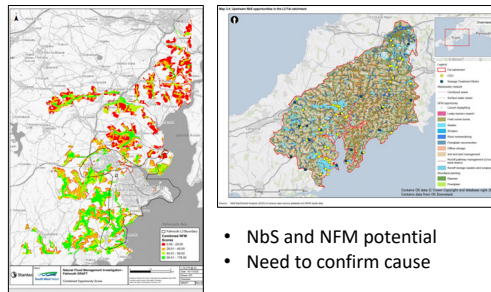
Subcatchment 11: South Falmouth
13.4 Unroofed Surface Flow Plan

Subcatchment 11: South Falmouth
13.6 Proposed SuDS Design Guide

8. SuDS Performance by Typology
8.2 Simulation Results: 2. Proposed SuDS and Performance

- Photos from site, surface flow plans
- Proposed SuDS features, locations, performance

NbS Natural Flood Management

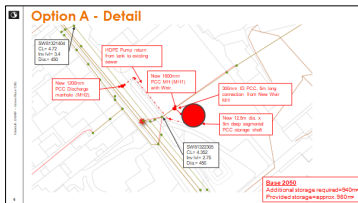


- NbS and NFM potential
- Need to confirm cause

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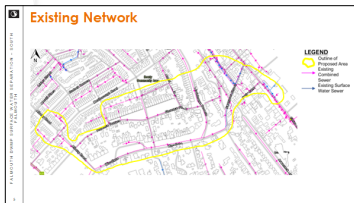
Options Development - Solutions

Storage

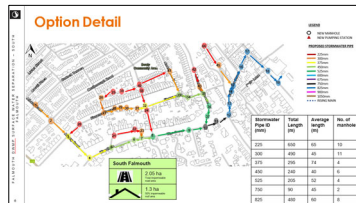


- Considered size, space
- Additional pipework and pumping

Surface Water Separation



- Combined sewers upstream of SOs
- Potential for separation



- New surface water network
- Outfall to watercourse or sea

Types of Solutions

Traditional

Storage



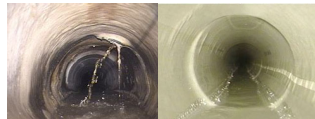
Shaft tank



Box culvert

- Higher confidence in costs, construction, impact
- Higher carbon footprint
- Disruption during construction

Infiltration and Inflow



Investigation

Relining/replacement

Surface Water Separation / Upsizing



Laying new surface water sewers / upsizing existing

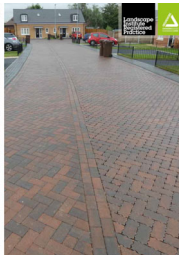
Types of Solutions

Nature-Based

SuDS



Swales, ponds/basins



Rain gardens, permeable paving

- Lower confidence in costs, construction, impact
- Lower carbon footprint, improved environment, biodiversity
- Still disruption during construction
- Green first ambition – NbS considered for all SWS options, 50% of solution to manage flows



Falmouth case study

Options Assessment

Stakeholder Feedback

£

Stakeholder	Example feedback
Environment Agency	Supportive of SWS/SuDS, discussed flooding locations, impact on watercourses, potential funding routes
Cornwall Council	Supportive of SWS, discussed surface water flooding, queried SuDS ownership and maintenance
Falmouth & Penryn Town Councils	Preference for SuDS to improve local environments, advised on land ownership, customer issues
SWW Operations	Discussed site issues, maintenance requirements for solution options
SWW Catchment Team	Provided system overview, issues, updates from investigations to inform solutions
SWW Storm Overflow Team	Provided update on SO investigations and view on solutions

Cost Benefit Analysis



COSTS

Storage cheaper ~£2k/m³
 SWS/SuDS up to ~£2-3m/ha
 FFT £££, site specific
 CAPEX + OPEX = TOTEX
 Risks: land, disruption, time



BENEFITS

Spill reduction
 Flood risk reduction
 Biodiversity / Amenity
 Opportunities:
 collaboration, joint funding



CARBON

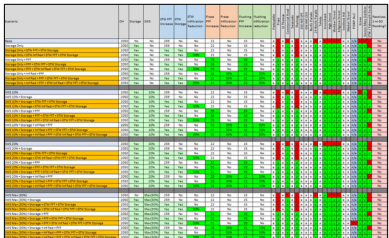
Capital and operational
 Storage highest
 SWS / SuDS lower
 Green / NBS solutions
 lowest

Falmouth case study

Solutions Modelling



Hydraulic modelling of proposed solutions



Simulation	Flow (m³/s)	Depth (m)	Velocity (m/s)	Flow	Depth	Velocity	Flow	Depth	Velocity	Flow	Depth	Velocity	Flow	Depth	Velocity	Flow	Depth	Velocity	Flow	Depth	Velocity	Flow	Depth	Velocity	Flow	Depth	Velocity	Flow	Depth	Velocity	Flow	Depth	Velocity		
S1

- 300+ simulations
- Individual solutions / combinations
- Impact on spills and flooding

Summary options



Option Name	Description	Metric 1	Metric 2	Metric 3	Metric 4
Option A
Option B
Option C

- Summary solution mixes
- Different planning objectives
- Preferred solution mix recommended

Falmouth case study

Notional Solution

Evolution of proposed solution

DWMP Iteration	Storage m3	SWS/SuDS ha	Network rehab for Inflow/Infiltration km	Upsizing km	Potential FFT increase at WWTW l/s	PFF increase at SPS Y/N
Draft DWMP	8,493	27	32.8	15.3	-	-
Final DWMP	5,190	26	11.6	8.2	58	Yes x 2

- Storage reduced – volume and locations (14 to 5)
- Pipe replacement/relining reduced – targeted upstream of 3 sites, 1 sea water
- Upsizing would be required to reduce future flood risk (but focus on SO spills)
- Potential need for flow increases at Falmouth treatment works and 2 pumping stations identified

Next Steps

- Findings and report handed to concept team
- Business case approval end September 2023
- Then pass to delivery team to start design and plan construction

Supporting inland bathing waters

4 storm overflows on the Bidwell Brook

Nick Paling

Stakeholder Engagement
Manager



Dart & Tavy Inland Bathing Water Pilot

Reducing storm overflow spills along the Bidwell Brook



Drainage & Waste Water Management Plan



WHAT WE WILL DELIVER BY 2030

We're making bathing and shellfish waters and areas that are ecologically sensitive our priority for the first five years.

Our DWMP sets out a plan for radical change and environmental improvements. We're increasing the pace of delivery so working with others and looking for innovation will be a real focus for us.

BY 2030 WE WILL HAVE...

- Invested in improving 275 storm overflows to reduce spills to a minimal level and always less than 10 per year
- Invested in half of our storm overflows at designated Bathing Waters and Shellfish Waters to reduce spills to a minimal level and no more than three each season
- Removed over 350 hectares worth of land drainage from our sewerage network
- Added over 150,000m³ of storage to capture rainwater and reduce overflows, that's the equivalent of building 60 Olympic sized swimming pools
- Upgraded 48 of our wastewater treatment works to remove nutrients and reduce our impact on river health – that is more than 20% of treatment works that need upgrading by 2050
- Invested in 715km of sewer to prevent water infiltrating and increasing flows – in a line they'd stretch from Lands End to the Scottish border!

£1.7 billion
of new investment

ACTING QUICKLY

Reflecting the strong views of customers and stakeholders and the storm overflow targets from the Government, we have put together a plan that rapidly improves overflow performance in key areas in the next five years.

This is our largest ever investment programme and we know that it could have a significant impact on our customers bills.

We know from our research on customer bills that we can deliver the investment set out without our resident customers paying much more than they do today – we look forward to working through these proposals with regulators as we continue through the business planning process.

You can find out more about the potential impact on bills in our [Regional Plan](#).



WHAT DO WE WANT TO ACHIEVE?

We know that our customers and stakeholders want our future performance to improve our impact on the environment.

OBJECTIVES FOR 2030

- 1** Internal sewer flooding risk
- 2** Pollution risk
- 3** Sewer collapse risk
- 4** Risk of natural sewer flooding
- 5** Storm overflow performance
- 6** Risk of WQV to quality of water

OUR RESOLVE OBJECTIVES

- 7** Risk of river flooding
- 8** Risk of WQV compliance
- 9** Sewer performance
- 10** Natural habitats and improvements to river water quality
- 11** Coastal risks due to climate change

WQV is the volume of wastewater that is not treated, which is the volume of water that is not treated.



Drainage & Waste Water Management Plan

HOW WE'LL MANAGE THE PLAN

We are responsible for providing reliable and efficient wastewater services for customers across a wide area of the South West: from the Isles of Scilly, throughout Cornwall and Devon, and in small areas of Dorset and Somerset.

PARTNERSHIP WORKING

We share responsibility for drainage – the assets that carry sewerage and surface water and impact on our network – and so we will be working in partnership to achieve the DNMP ambitions. This is not new to us – but what is different is the scale.

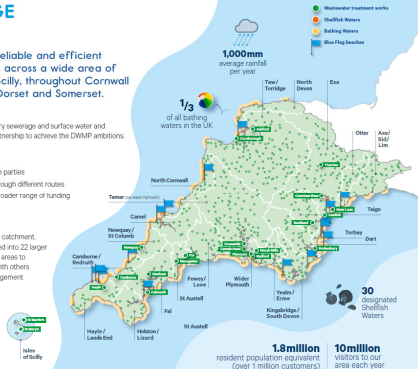
We recognise that:

- The responsibilities for drainage are often split between parties
- We have different drivers, objectives and are funded through different routes
- Working across organisations we can access a much broader range of funding and deliver more impactful solutions.

STRATEGIC PLANNING AREAS

Each wastewater treatment works serves an area called a catchment. There are 653 catchments in our region which are grouped into 22 larger Strategic Planning Areas (SPA). We can use these larger areas to help us manage the region as a system and collaborate with others who also have responsibilities for flooding and river management such as the Environment Agency and local Councils.

➔ We have an individual plan for each Strategic Planning Area, as well as our region. All of these documents can be found on our website.



SPOTLIGHT STORM OVERFLOWS

Reducing pollution from storm overflows is a priority for our customers and stakeholders. We will invest £500m by 2030, radically improving storm overflow performance across the region.

To reduce spills we can increase treatment capacity at wastewater treatment plants, reduce excess, enhance storm capture, create additional storm storage and separate more surface water in a range of ways, including nature-based solutions.



Across the region there are 142 storm overflows. 50 have already been prioritised for action by 2025 in our 'Spill' programme and 760 are prioritised at this date. The remaining 628 either do not spill or their average spill rate is less than ten litres per year and will be addressed over time through our ongoing maintenance programme.

WHERE ARE WE INVESTING?
We've identified our customers and are starting to reduce spills at our high priority sites. These are areas where our spills risk causing ecological or recreational impacts. Our programme to 2030 will improve 355 of these, resulting in around 4,000 more litres each year.

DID YOU KNOW?

We've introduced our river water quality monitors at every storm overflow site, providing information on when sites are spilling and the impact of the spill in the river.

Drainage and Wastewater Management Plan - Customer Outline 2023

HOW MANY STORM OVERFLOWS ARE THERE?
At our bathing water sites we will reduce spills to a minimum, with no more than three across each bathing season. By 2030, we'll have made these improvements across all of our bathing waters to 2025, maintaining our 90% bathing water quality standards.

Our Dart and Teign pilot schemes what we've learnt about our most bathing water we designed. We have installed monitoring to help us identify how we would work with others to achieve bathing water quality standards. We expect to start using designed storm bathing water within our region very soon.



Reducing spills from storm overflows is a high priority for our customers and stakeholders.

“The current Victorian designed wastewater system that relies on combined sewer overflows is clearly no longer acceptable and we're taking action to tackle it.”



Reducing spills from storm overflows is a high priority for our customers and stakeholders.

Storm Overflows Discharge Reduction Plan

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				

Storm Overflow Action Plans

To be published in November

WaterFit – £330m to reduce average spills per location to 20 per year by 2025

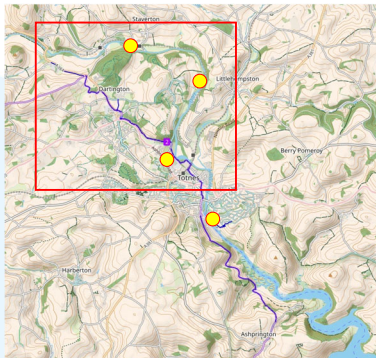
DWMP investment reducing average spills per location to 10 per year by 2040

Accelerated Delivery investment to start by 2025 – *includes inland bathing waters*

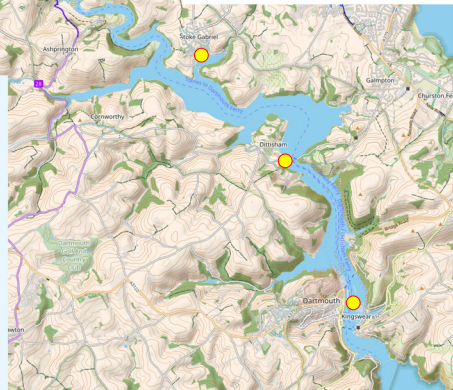
+ Significant further investment planned for next 2-25 years...**Upstream Thinking**

Dart & Tavy Pilot

Main points of access on Dart



HELLO
LAMP POST

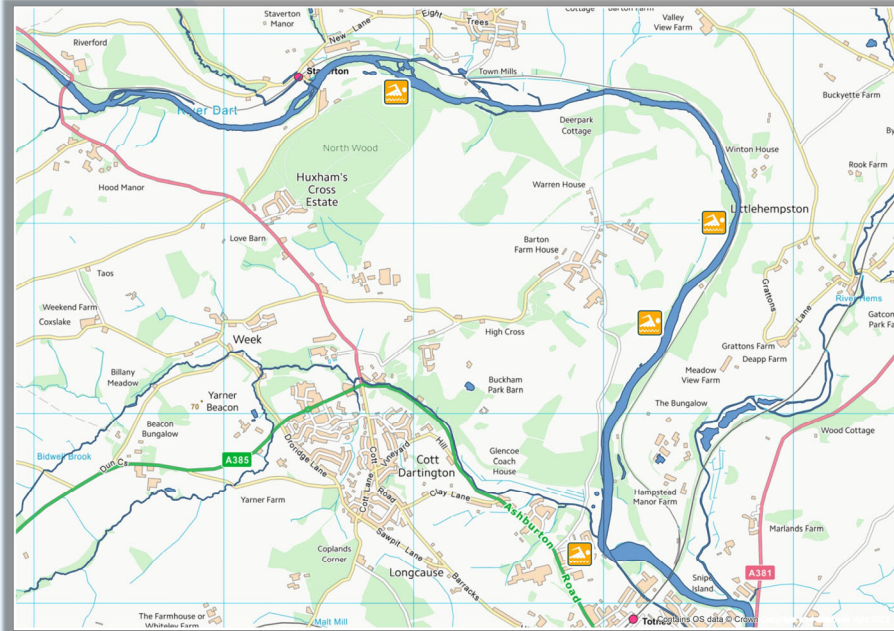




South West
Water







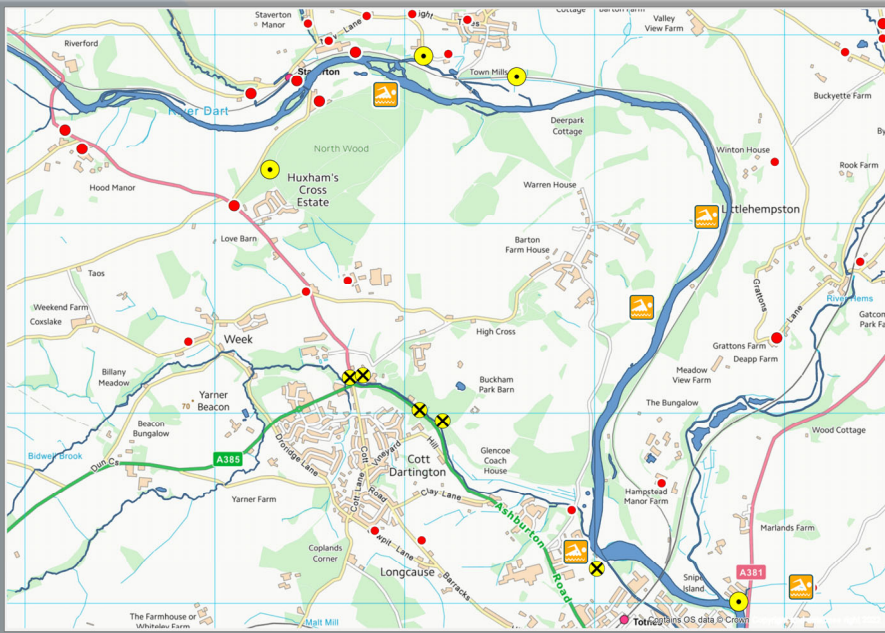
Popular swimming locations



The Farmhouse or
Whitalew Farm

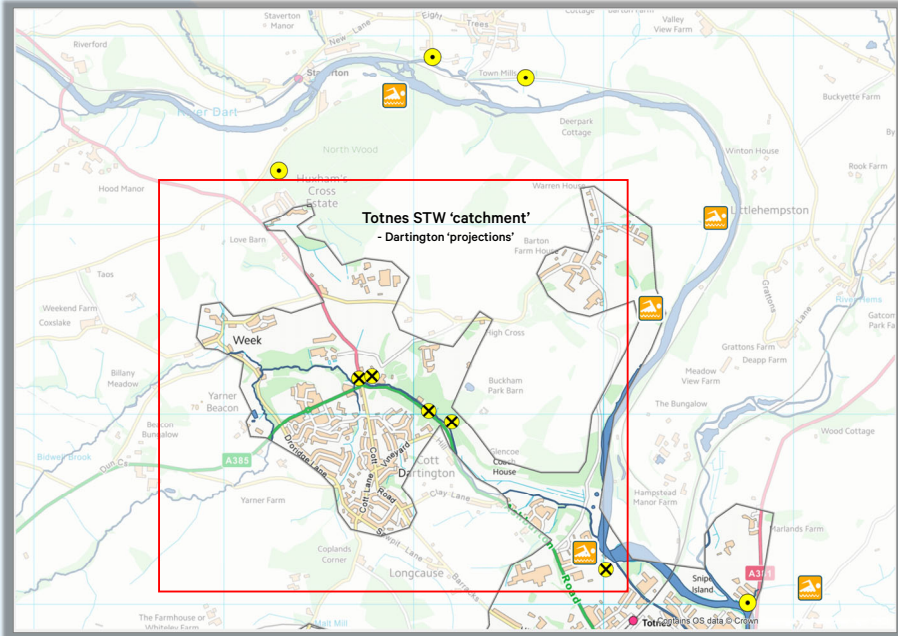
Totnes OS data © Crown

-  Popular swimming locations
-  SWW assets (SOs, STWs)
-  Storm overflows
-  Private discharges/assets



The Farmhouse or
Whitalea Farm

Totnes
© Crown



Popular swimming locations



SWW assets (SOs, STWs)




Storm overflows




Private discharges/assets

Why are these
SOs there...?


Area of Dartington
section = 1,208,895 m²




Popular swimming locations



SWW assets (SOs, STWs)




Storm overflows



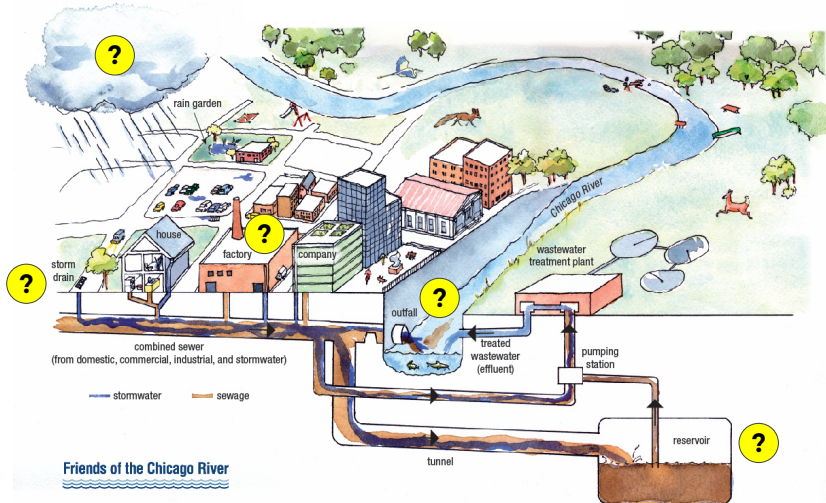
Private discharges/assets

Why are these
SOs there...?

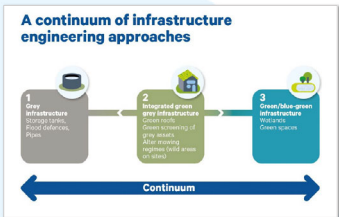
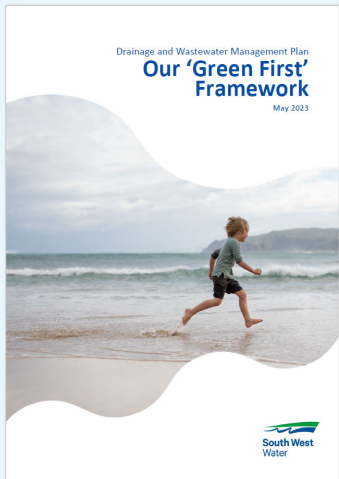
Area of Dartington
section = 1,208,895 m²

-  Popular swimming locations
-  SWW assets (SOs, STWs)
-  Storm overflows
-  Private discharges/assets
-  Combined sewer network

Understanding storm overflows

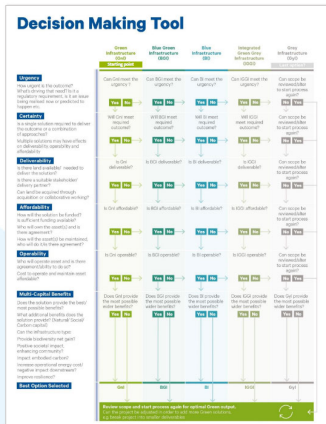


Our 'Green First' framework...



Decision-framework to support selection of right blend of solutions:

1. Urgency
2. Certainty
3. Deliverability
4. Affordability
5. Operability
6. Multi-capital benefits



Understanding storm overflows – how much water?



1x Olympic sized swimming pool
= **2,000 m³**

Also need to work out what the
composition of this material...

Dry Weather Flow + Surface Water
...but is it mixed and how does it spill?

Understanding storm overflows – where's it coming from?




Area of roofs and
impermeable surfaces =
155,625 m²
13%


20mm rain
= 3,124 m³

Area of Dartington
section = 1,208,895 m²


20mm rain
= 24,176 m³




Popular swimming locations



SWW assets (SOs, STWs)



Storm overflows



Private discharges/assets



Roofs + impermeable surfaces

Maximum depth for a 200 year flood event:

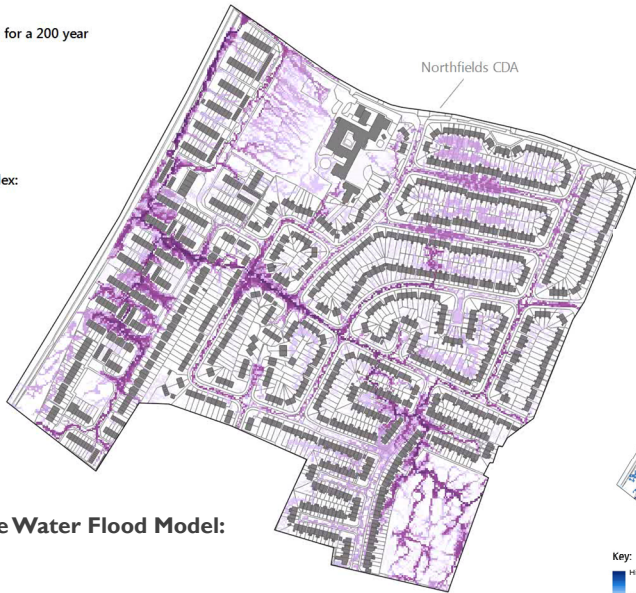


Surface Flow Index:

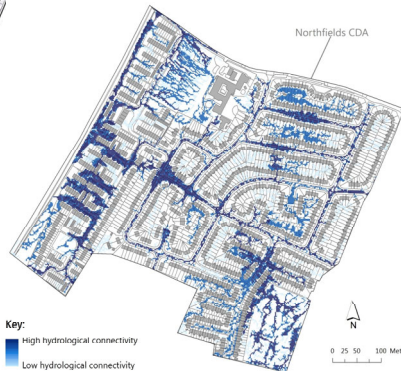


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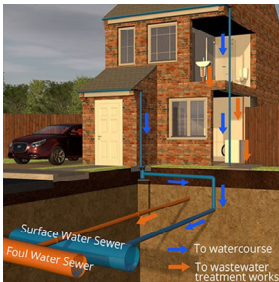
Surface Water Flood Model:



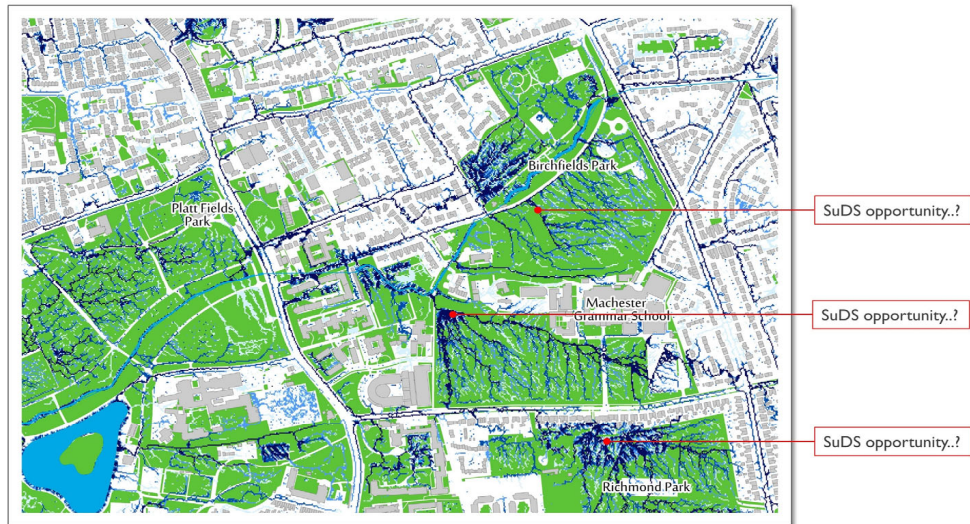
Surface Water Flow



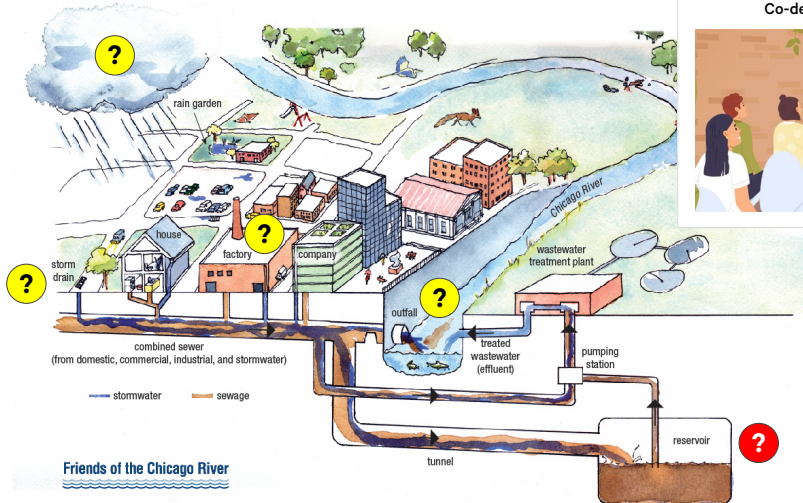
Understanding storm overflows – how can we stop it...?



Understanding storm overflows – how can we stop it...?



Understanding storm overflows



Co-design & options workshop



Community Engagement

Newquay & Lyme Regis

Vicky Garner

Community and Partnerships
Manager



“As a council we are very clear as to the strength of feeling around water quality at local beaches, so much so that I brought a motion to the council on this specific issue.

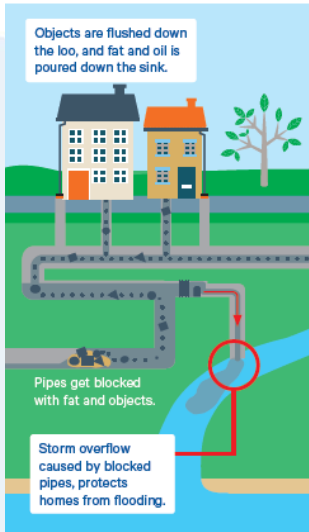
Since then we have met several times with South West Water and have been encouraged to hear about their plans to reduce pollutions and storm overflow discharges at our beaches.

As a council however, we felt more needed to be done. The next step we have agreed with South West Water is a pragmatic, first of its kind project, which we hope will contribute to reducing ocean pollution.”

Cllr Drew Creek, Newquay Town Council



'Sewers for sewage'



Campaign materials and activities

- Printed leaflet highlighting 5 easy steps
- 6 key message posters (printed & downloadable)
- 14 social media assets
- Mobile billboard
- FSE Kitchen Audits
- Holiday park visits and domestic visits at hotspots
- SWW attendance at Council Summer Event

Help keep
Newquay's
beaches
beautiful



Get a water butt!



Posters

Help keep
Newquay's
beaches
beautiful



Only flush the 3Ps

Ordinary steps make an extraordinary difference

Pee, Poo and Paper is all that should be going down your loo. Wet wipes and sanitary items can block sewer pipes - they can even end up in rivers and on beaches. Please bag them and pop them in the bin.

Help keep
Newquay's
beaches
beautiful



Check it connects

Ordinary steps make an extraordinary difference

If you're having a new toilet or appliance installed - check it's connected to the right pipes. If it's wrongly connected to a storm drain or surface water sewer it could end up in the sea.

Help keep
Newquay's
beaches
beautiful



No F.O.G. down
the drain

Ordinary steps make an extraordinary difference

Fats, Oils and Grease poured down the drain create blockages, which can cause flooding, and pollute our beaches. Tip cooled oil into a container, wipe grease from pans and plates with a paper towel and bin both.

Help keep
Newquay's
beaches
beautiful



Think garden –
think sponge!

Ordinary steps make an extraordinary difference

Lawns and flower beds soak up water like a sponge - rain runs quickly off hard surfaces like tarmac and patios and into the sewers. More sponges = fewer storm overflows.

Lyme Regis

- Regular meetings with Town Council, River Lim Action Group, EA and Dorset Council
- Site visits for RLAG
- Water quality monitors deployed in the River Lim
- Bacteriological sampling
- CCTV investigations and fixing misconnections based on intelligence from RLAG
- Responding to questions and EIRs





Q&A Session

Securing resilient water supplies I

Building drought resilience and the potential of desalination

Jo Ecroyd

Drought & Resilience
Programme Director



Water resilience - tackling the biggest challenges head on

By 2050...

AVERAGE DAILY TEMPERATURES

could increase

up to 18°C

increase of 2.2°C



AVERAGE SUMMER DAILY TEMPERATURES

could increase

to 23°C

increase of 3°C



We can expect

much drier summers

50% chance
of summers as
hot as
in 2022

A **16-fold increase**
in the frequency of
heatwave events

above 30°C



Rainfall
in the region
will become

much more variable

- To meet the challenges of the future, we have developed a roadmap that will deliver water resilience, our plans include both demand-reductions and solutions that increase supply.

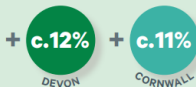


- Climate dependent surface water resources in reservoirs and rivers form the vital parts of our water supply system – with over 90% of our supplies from these sources.
- Developing climate independent solutions is a vital element of our supply plans and this includes desalination.

Making progress against our key priorities

Supply-side investments underway, adding additional resources¹

Augmented supply and storage schemes



Expansion of treated water network



Repurposed disused quarries



Total increase to date

DEVON **c.12%**

CORNWALL **c.25%**

Demand-side initiatives

supporting drought management



Fixing more leaks than ever before



Reducing our own usage



Promoting water efficiency

SAVE EVERY DROP

Over **211,000** devices

Our 2025 target

Increasing water resources available by c.45% in Cornwall and c.30% in Devon

↓ How we'll achieve this

Investing c.£125 million in:

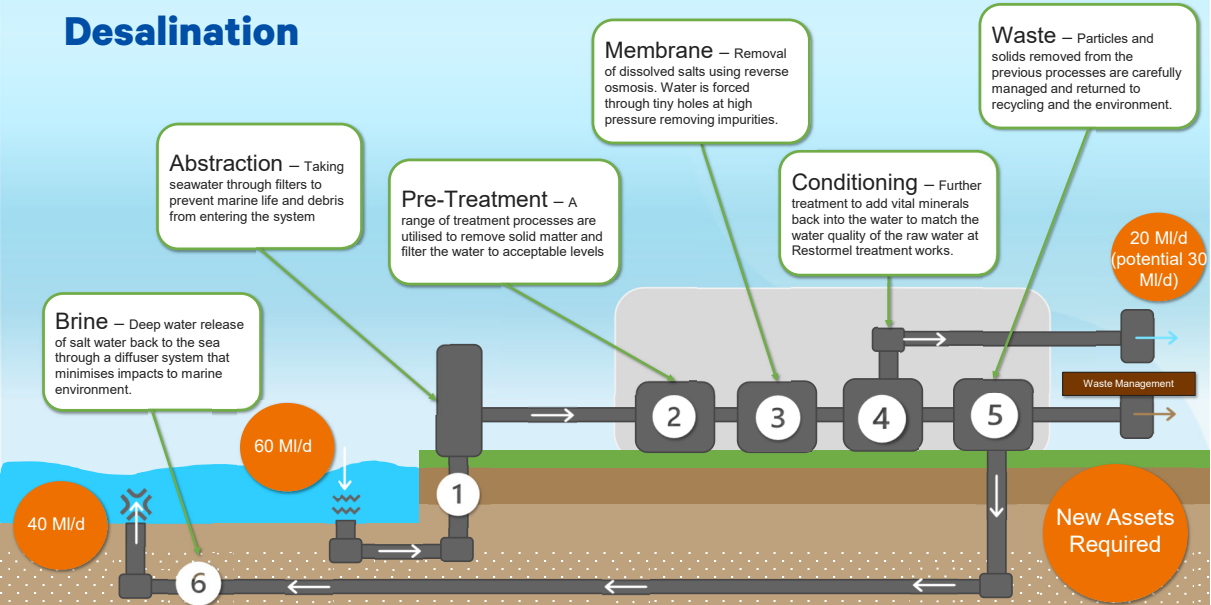
Cornwall – Desalination and further re-purposing of quarries adding a further 20%

c.25% delivered to date

Devon – New storage sources delivering c.18%

c.12% delivered to date

Desalination



Key considerations

- Explored many options for the proposed site across most of the Cornwall coastline.
- Environmental and engineering factors carefully considered.
- Least disruption to the public, optimal routes for abstraction/discharge and transfer to the receiving Water Treatment Works.
- Proposed pipeline route will be designed to avoid environmental designations, heritage/historic landscape to minimise possible impacts.
- Stakeholder engagement is key.

Securing resilient water supplies II

Introduction to the 3 regional supply options

Nick Paling

Stakeholder Engagement for
West Country Water Resources



West Country Water Resources Group

Aims of WCWRG:

- Support a **coordinated approach** to water resources planning in the West Country that transcends water company boundaries.
- **Integrate** the individual water company Water Resources Management Plans – which set out how they plan to balance water supply with demand for at least the next 25 years.
- **Explore options** for improving water supply-demand balance – cross-sector solutions, collaboration, holistic approach, strategic options at a regional-scale.



West Country
Water Resources



Goals of the West Country Regional Plan

The Draft Regional Plan has been designed to:

- **Secure water supplies** to a 1-in-500-year drought by 2039 and maintain secure supplies in the context of climate change
- Ensure a 50% **leakage reduction** by 2050 (against 2017 levels)
- **Manage customer demand:** Empowering HH customers to **reduce their daily use** by up to 110L per person per day by 2050...plus non-household efficiency
- **Environmental protection:** Introduce a programme of work to better understand the **needs of the environment** and what we can do to **improve the environment** for future generations
- Engage more widely with **non-public water supply users**



Regional solutions: Strategic Resource Options

- Nationally significant infrastructure projects
- Gated process overseen by RAPID, an alliance of regulators: Ofwat, EA and DWI
- Development funding
- Improve interconnectivity

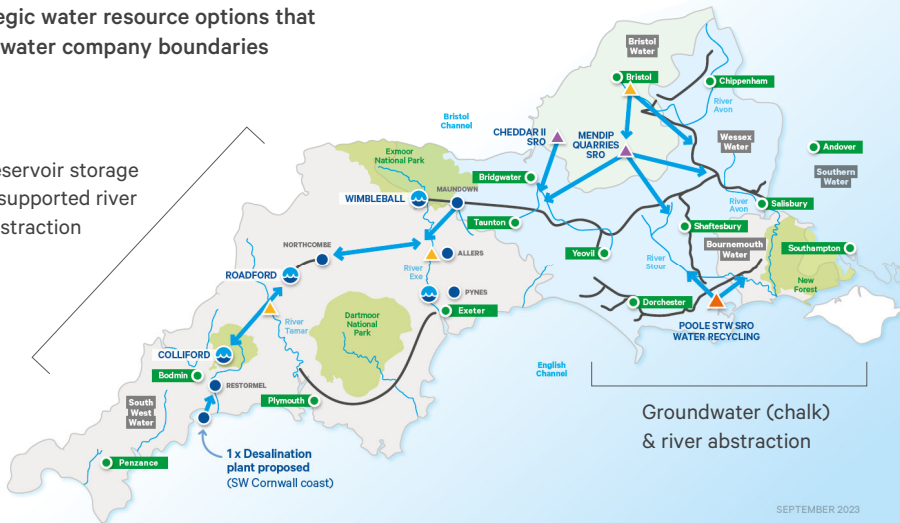


Regional solutions: Strategic Resource Options

Need for regional strategic water resource options that deliver benefits across water company boundaries

Reservoir storage & supported river abstraction

-  Existing trunk network
-  Reservoirs
-  Water treatment works
-  River abstraction
-  New reservoirs
-  Sewage treatment works/ recycling plant
-  Potable/ raw water transfers

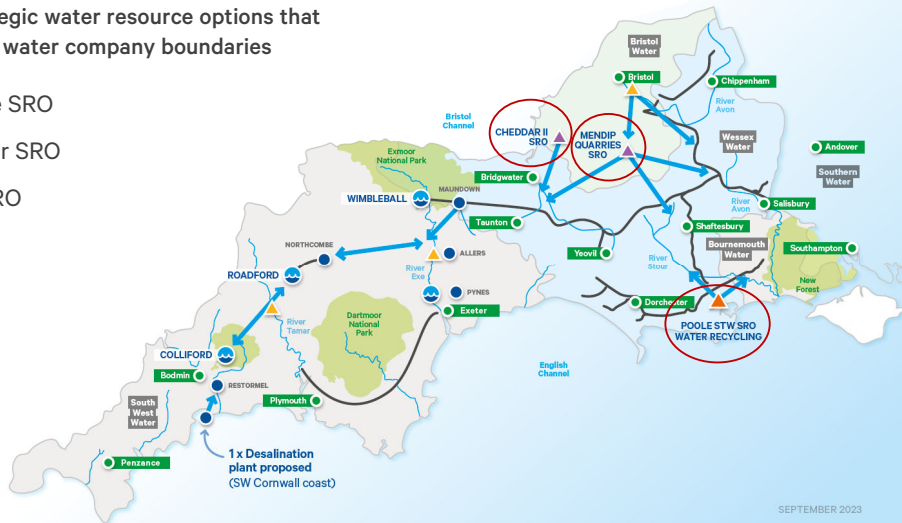


Regional solutions: Strategic Resource Options

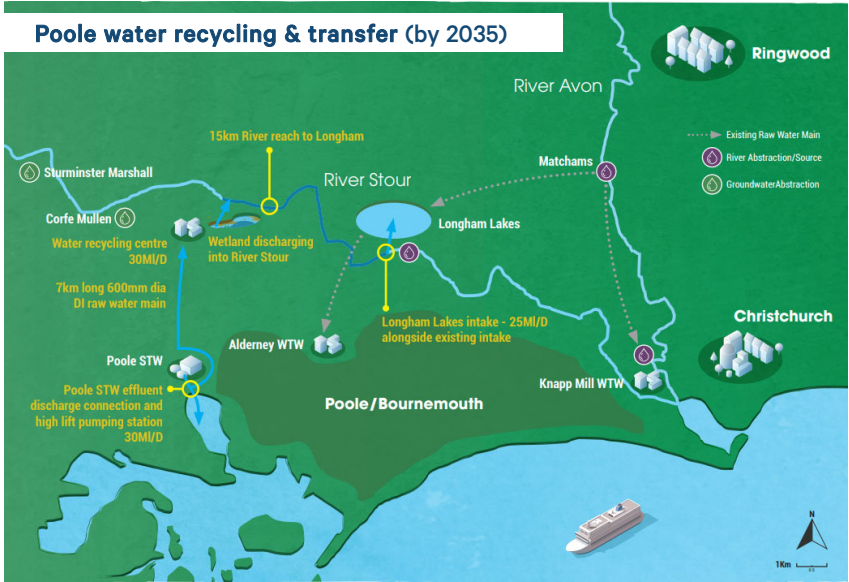
Need for regional strategic water resource options that deliver benefits across water company boundaries

- Poole Water Re-use SRO
- Cheddar 2 Reservoir SRO
- Mendip Quarries SRO

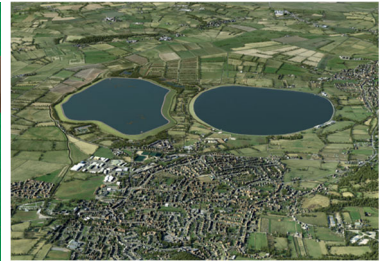
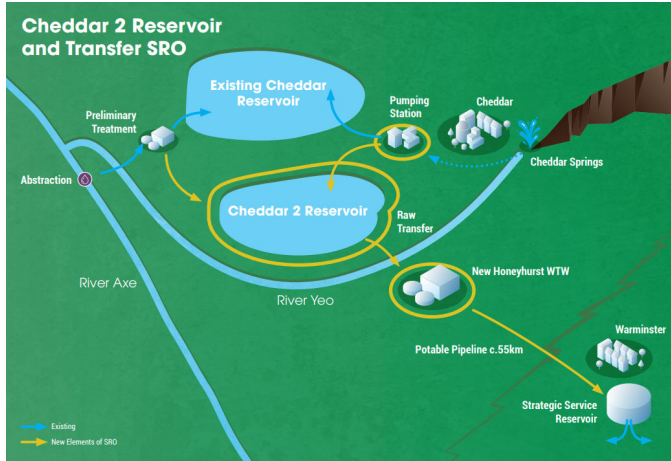
- Existing trunk network
- 🌊 Reservoirs
- Water treatment works
- ▲ River abstraction
- ▲ New reservoirs
- ▲ Sewage treatment works/ recycling plant
- ➡ Potable/ raw water transfers



Poole water recycling & transfer (by 2035)



Regional solutions: Cheddar 2 Reservoir SRO



9,000 Megalitre reservoir (by 2035)
+ Water treatment works
+ 6km raw and 49km potable transfers
14 MI/d average output
36 MI/d summer peak demand output

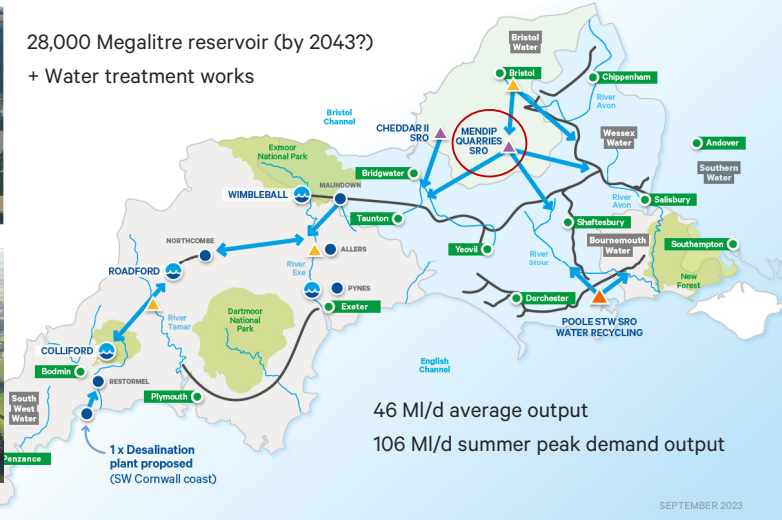
Regional solutions: Mendip Quarries SRO



28,000 Megalitre reservoir (by 2043?)
+ Water treatment works



Source: Torr Quarry deepening, Planning application

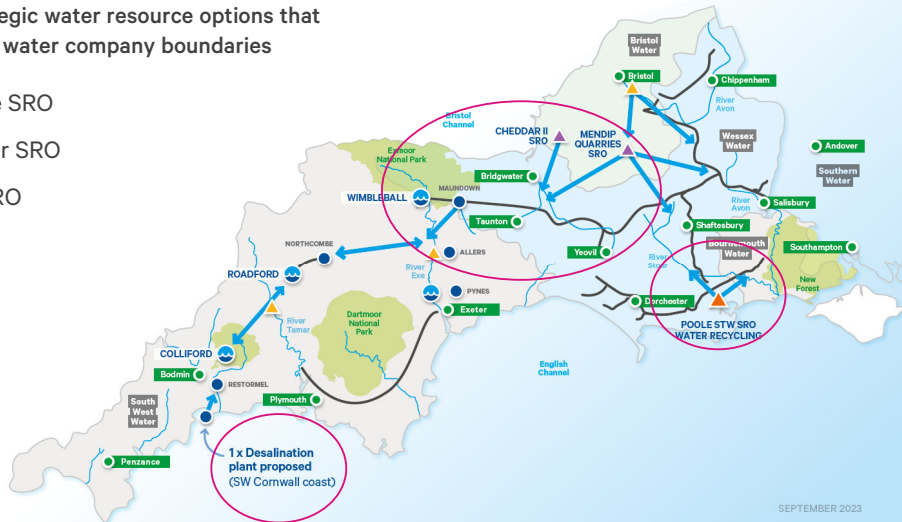


Regional solutions: Strategic Resource Options

Need for regional strategic water resource options that deliver benefits across water company boundaries

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- Existing trunk network
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- ▲ New reservoirs
- ▲ Sewage treatment works/ recycling plant
- ➡ Potable/ raw water transfers



Regional solutions: Strategic Resource Options

Further Information

- Poole Water Recycling
[poole-sro-gate-2-report.pdf](#)
- Cheddar 2 Reservoir
[cheddar-sro-gate-2-report.pdf](#)
- Mendip Quarries
[mendip-quarries-sro-gate-2-report.pdf](#)



Save Every Drop

Water Efficiency Campaign

Matt Watts

Marketing & Communications



The Challenge – Elevating the perceived value of water to reduce demand

Objective

- Reduce Demand for drinking water – average daily use 150 litres per person per day.
- Deliver comms against drought plan to encourage heightened awareness and engagement in areas that are under increasing pressure to support reliable supply.

Situation

- Our demand for treated water continues to grow year on year through both increased use and population growth,
- Our impact (negative) on the environment grows with demand.
- Climate change is impacting our ability to manage water resources to meet growing demand and protect the environment.
- Resulting in pressures in our ability to deliver reliable and expected service

Solution

Deliver a long term campaign that:

- Elevates the value of “water” – natural and treated
- Educates consumers as to the situation and the impacts of water demand on the environment
- Increase understanding of direct relationship between human demand for water and its negative impact on the environment
- Clearly communicate challenges and ongoing resource situation and any subsequent restrictions to encourage behavioural change
- Ensure we remain front of mind and visible

Core Messaging – Save Every Drop

Customer & Consumers

CORE MESSAGE: Our demand for water impacts the environment and nature all around us. Small steps can make an extraordinary difference.

Simple tips and advice on how to save water at home and FREE water saving devices to help reduce our demand and impact on the world around us (and reduce bills)

CTA: Visit www.southwestwater.co.uk/savewater to find simple tips and advice and order your free water saving devices to save water, support the environment and save you money...

Non Household

CORE MESSAGE: Our demand for water impacts the environment and nature all around us. Businesses across our region have an important role to play. To help you in helping reduce your demand we have a range of free support initiatives all designed to help you reduce your demand, reduce our impact on the environment and save money

CTA: Full the full details of available support and advice Visit www.southwestwater.co.uk/savewater

Tourists

CORE MESSAGE: Our demand for water impacts the environment and nature all around us. As visitors to this wonderful area, please play your part in protecting this beautiful place. Small steps can make an extraordinary difference and if we all make that extra effort to Save Every Drop then we all play our part in protecting what we all love.

CTA: Everyday water saving tips and advice visit www.southwestwater.co.uk/savewater



Audiences and Customer Groups at Each Level

Audience	Customers & Consumers	Businesses & Water Retailers	Tourists	(Partners) Councils, Stakeholders, Regulators, Environmental Bodies.
	Their Environment	Their Environment	The Place they love to Holiday	Be seen to be doing the right thing and supporting initiatives that enhance their stakeholders futures.
Influences & Motivations	Household Financial Benefits Impact of lack of availability on their every day operations	Saving money for their business Impact of lack of availability on their every day operations	Help support & maintain the environment they love	Impact of lack of availability on their operations and the communities they support
Support, Interventions offered	<ul style="list-style-type: none"> • Environmental awareness • Water Saving advice and tips • FREE Water saving devices • FREE Leaky Loo Fix • Water Saving Community Fund 	<ul style="list-style-type: none"> • Free Water Saving Devices (Industrial grade) • Free Water Saving communication materials for offices • FREE Water Audits including on spot leak repairs and instant interventions (Groundworks) • Holiday Park support to install free Flow Moderators and interventions • Innovation fund – offering financial funding to support demand reduction schemes in businesses – whole region. • FREE Leaky Loo repairs (Cenergist) (R & C) • FREE Leak repairs (R & C) – includes compulsory metering as part of the offer. • Situation Webinars for Retailers – ensuring they are better informed 	<ul style="list-style-type: none"> • Water Saving Advice and Tips 	<ul style="list-style-type: none"> • Communications on the situation • Portal to access promotional campaign assets and materials to promote to own audiences • Materials to help spread the message
	Desired outcome: Reduce Demand	Desired outcome: Reduce Demand	Desired outcome: Reduce Demand	Desired outcome: Support delivery of message

SAVE EVERY DROP

SUSTAINABLE DEMAND REDUCTION,
TARGETING RESIDENTS, BUSINESSES AND
TOURISTS ACROSS THE SOUTH WEST.



SERVICE STATION MEDIA



PRINTED & DIGITAL 6 SHEET



WASHROOM POSTER
TUB EDITION



SOCIAL POST
TUB EDITION



TUB - 6 SHEET

MONTHLY REACH CIRCA
8 MILLION

TARGETING RESIDENTS,
TOURISTS AND
BUSINESSES ACROSS
THE SOUTH WEST

MORE THAN
50,000
WATER BUTTS ORDERED

OVER
180,000
FREE WATER SAVING
DEVICES CLAIMED
TO DATE



WASHROOM POSTERS



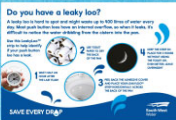
SOCIAL MEDIA - INSTAGRAM, FACEBOOK, TWITTER



BUS - SIDE



BUS - REAR



SAVE EVERY DROP



POSTERS



POSTERS

Next Steps – Save Every Drop

- Continue with the Save Every Drop messaging.
- Elevate messaging and activity at key times of the year.
- Focus on the key target audiences – consumers, businesses and tourists.
- Build greater community engagement with councils, stakeholders, environmental groups across our region
- Develop marketing and communication partnerships with a range of targeted businesses across the South West Water region (Example: Haven Holiday Parks Cornwall)
- We all need to nudge consumers into thinking of the higher perceived value of water and by making small steps in our everyday water usage we can all make a difference both now and into the future.





Q&A Session