



**South West
Water**

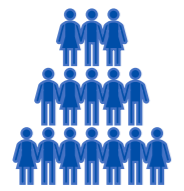
Plymouth City Council Select Committee Water Quality

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22 February 2024

Overview of South West Water



2 million customers & serving up to **9 million** people during tourist season



19,000km of pipe network – enough to reach Australia



£300m a year investment in our region and improving our infrastructure



2,500 employees creating new green jobs, upskilling 500 apprenticeships and



Net Zero Commitment by 2030 investing in renewables across the South West



Water quality outcomes

Nurturing healthy rivers and seas

- reduce our impact on rivers by 2025, by one third and put forward plans to target zero harm by 2030
- reduce spills from storm overflows to an average of 20 per year by 2025
- maintain our excellent bathing water quality standards, all year round, so that everyone can enjoy our 860 miles of coastline
- deliver zero serious pollutions by 2025, and target a year on year reduction in all pollutions



Pollutions, storm overflows and water quality

Progress to date:

Pollutions

- Pollution incidents have reduce from 225 / 23 (2020), 151 / 13 (2021) and 108 / 10 (2022).
- South West Water had the 2nd lowest number of pollutions across the whole water industry sector in 2022. We do expect an “uptick” in 2023 due to the wetter than average weather.
- Serious pollutions have reduced from 3 / 1 (2020), 8 / 0 (2021) and 2 / 1 (2022). There were no serious pollution incidents in Plymouth area in 2023 and 12 x Cat 3 (minor) incidents (tbc).
- All sewage treatment work in Plymouth achieved their permits standards in 2023.

Storm overflows

- We have 100% monitoring of all storm overflows, ahead of the government target.
- There are 126 storm overflow in Plymouth City Councils area.
- Based on 2023 data (to be validated), 56 storm overflows already achieve spills of 10 or less with 74 achieving 20 spills or less.
- We plan to publish the 2023 Annual Return by 31 March 2024 following the EA’s audit.
- We publish in “near real time” storm overflow activations for bathing beaches (Waterfit Live).
- We plan to publish in “near real time” for all 1342 storm overflows ahead of Govt targets.
- We are focussing on storm overflows near bathing and shellfish waters as a priority.
- Our Storm Overflow Action Plan (SOAP) will show when we plan to improve each storm overflow.

Bathing water quality

- There are 3 bathing waters in Plymouth – Plymouth Hoe (East), Plymouth Hoe (West), Firestone Bay.
- All three achieved ‘Excellent’ in 2023.

River water quality

- South West Region RBMP provides the detailed analysis on causes and is owned by the EA.
- Overall South West Water operations currently contribute c.12% towards the reasons for not achieving good ecological status. This can change over time.
- Main catchments include: Lower Tamar (Estuary), River Plym (Estuary)



Water quality interventions

Monitoring

- Installation of c.20,000 sewer level monitors by 2025.
- AI solutions to enable real time operational impact analysis.

Planning

- Reduce run off and remove the automatic right to connect; legislation to mandate nature based solutions for drainage (SuDS)

Up Stream Thinking

- Bring together partners to help manage, protect and enhance our catchment areas
- Working collaboratively in our catchments, active in 80% of our region, working with 1,700 farmers, around 91,000 hectares have already been restored

Love your Loo & Think Sink

- Address what goes into our network, backing the ban on single use plastic wet wipes
- Over 200,000 wet wipes find their way into our sewage network each day.
- We removed over 450 tonnes of unflushables such as wet wipes, sanitary products and cotton pads from pumping stations.
- Every year, tens of thousands of litres of waste fat, cooking oil and grease are poured down sinks by people who don't realise the problems this could cause.

Misconnections

- Extensions to existing domestic properties e.g new toilets, sinks, showers.



Challenges we now face

More extreme weather events



- Fivefold increase for heavy rainfall events
- 17% increase in extremely wet days
- Increasing risk of flooding

Hotter and drier summers



- Reservoir levels lower
- River abstraction reduced equivalent to supplying 250,000 people
- Raw water quality impacted

Rising sea levels



- Large coastal population
- 1/5 of our treatment works at risk
- 100's kilometers of network

Growing population



- Another half a million residents by 2050
- 10 million tourists visit the region every year

Water – interventions and investment



What happens in the Tamar Catchment upstream of Plymouth can heavily influence water quality in the Plymouth Marine Park

We can't look at Plymouth City in isolation.

Water – interventions and investment



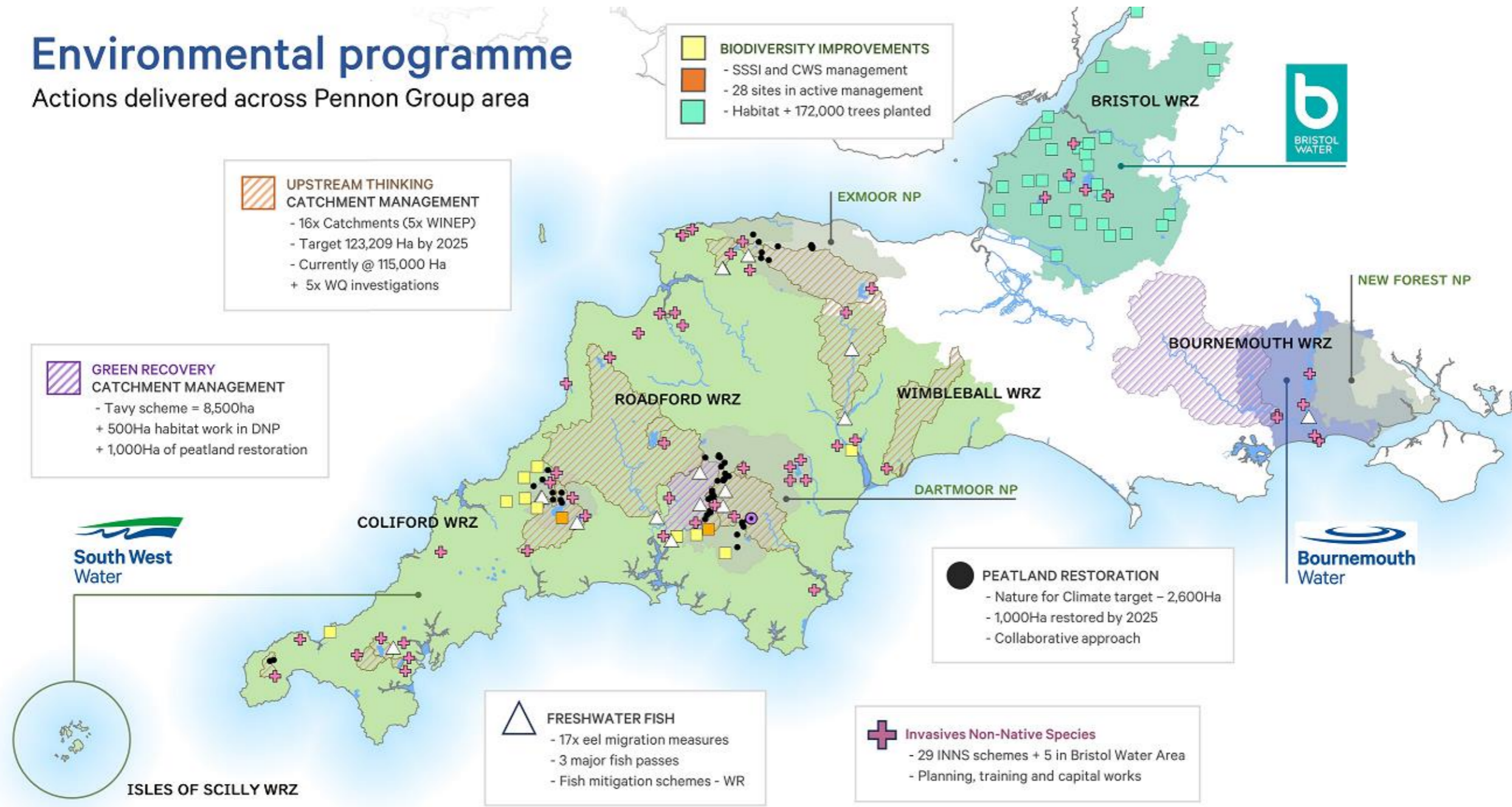
What happens in the Tamar Catchment upstream of Plymouth can heavily influence water quality in the Plymouth Marine Park

We can't look at Plymouth City in isolation.

Water - natural based solutions

Environmental programme

Actions delivered across Pennon Group area



Protecting and maintaining existing water supplies and infrastructure (Water Resource Management Plan (WRMP))

- WRMP looks 25 years ahead and sets out how the future demand for water from customers, communities, businesses, and all other stakeholders will be met whilst also meeting the needs of the environment.
- The consultation on our revised draft plan has closed and we have been reviewing the feedback.
- We received 17 responses in total.
- Our statement of response will be submitted to Defra before Christmas, explaining the changes we will make in response to the feedback received. We will update the plan in the new year.

Our response

- In the rdWRMP these were our best value objectives. [Microsoft PowerPoint - Customer Summary v2 \(southwestwater.co.uk\)](https://www.southwestwater.co.uk/customer-summaries/microsoft-powerpoint-customer-summary-v2) (page 8)
 - Protect and enhance the environment.
 - Ensure resilient water supply.
 - Deliver wider societal benefit.
 - Ensure affordability for customers.
 - Optimize land use.

Protecting and maintaining existing water supplies and infrastructure (Plymouth City Council)

OUR BEST VALUE PLAN

Demand management will benefit all our water resource zones but the scale of activity and benefit varies across each zone. New supplies are considered for individual water resource zones using a range of future scenarios. The scenarios are used to create a plan that can be adapted if the future is different to our baseline forecasts.

ROADFORD WRZ

Our Roadford zone includes parts of north-east Cornwall and a large part of Devon, from Plymouth, the South Hams and Torbay in the south, to Bideford and Barnstaple in the north. The coastline, wooded valleys and moorland are extremely popular for tourists.

Our Roadford Reservoir is our largest impounding reservoir, and we operate it conjunctively with smaller reservoirs, river intakes and groundwater sources. These sources are also supplemented by bulk transfers between the neighbouring Colliford and Wimbleball zones.

The population is around 850,000 and is centred in Plymouth, Torbay, Newton Abbot, Okehampton, Torrington, Bideford, Barnstaple, Ilfracombe, Bude. We supply around 230 ML/d to this zone.

Dartmoor National Park lies at the heart of this zone and can be seen from all over the region. It also includes the Western corner of Exmoor National Park and the South Devon, North Devon and Tamar Valley Areas of Outstanding Natural Beauty.

The landscape provides habitat for numerous protected species such as the Marsh Fritillary and 3 out of the five Devon colonies of Southern Damselfly.

KEY CHALLENGES

To further protect the environment, we have to reduce the amount of water we are taking from rivers, especially the River Dart. To provide a sustainable abstraction regime and meet our Environmental Destination we must reduce the volume we abstract in this zone by 28 ML/d.

HOW OUR PLAN WILL BENEFIT ROADFORD WRZ

We are aiming to reduce leakage and overall demand so that there is less pressure on our resources. In our Roadford zone we will invest in additional raw water transfer capacity in 2035/36 to offset an Environmental Destination abstraction reduction of 16.99 ML/d on the River Dart.



Population served:

C. **866,470**

Population centres

Plymouth, Torbay, Newton Abbot, Okehampton, Torrington, Bideford, Barnstaple, Ilfracombe, Bude

southwestwater.co.uk