

Water Resources Management

Balancing supply with demand for water

Nick Paling

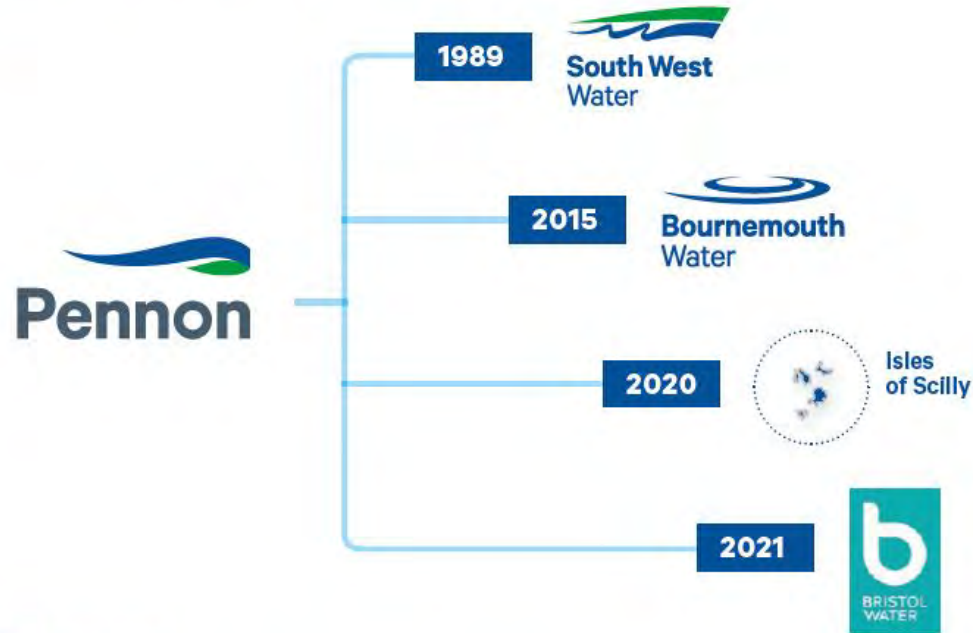
Stakeholder Engagement



**YOUR
WATER
YOUR
SAY**



Who we are



Our purpose

Bringing water to life –

supporting the lives of people
and the places they love for
generations to come



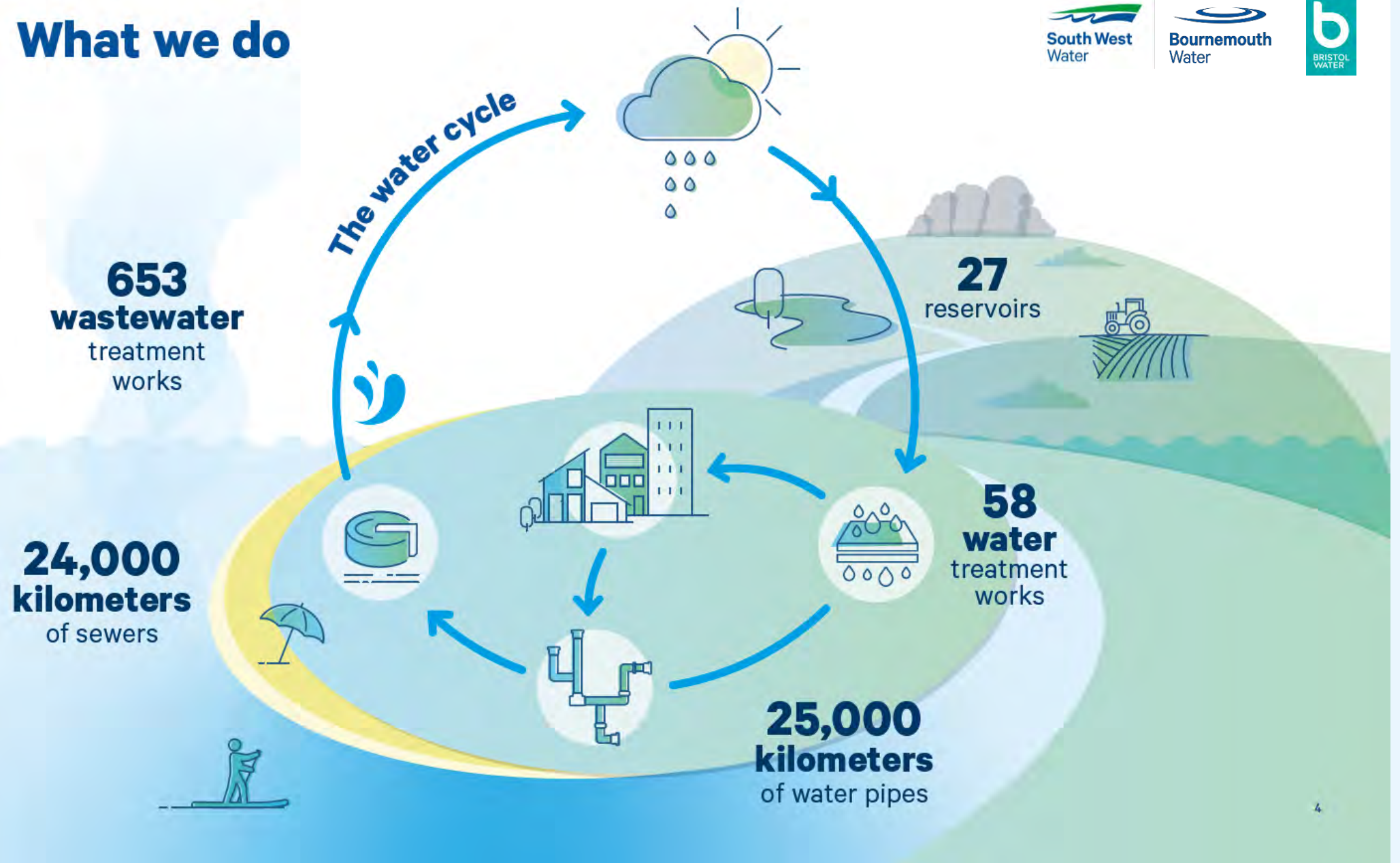
**YOUR
WATER
YOUR
SAY**

The regions we serve



**YOUR
WATER
YOUR
SAY**

What we do



Our responsibilities

Water companies have been challenged by the Government to provide –

- A resilient, safe, and affordable water supply and wastewater services
- for today's users and future generations
- A thriving natural environment with increased value, clean rivers and a sustainable ecosystem
- Provide excellent service, support for vulnerable consumers and act in the long-term interests of society and the environment



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 kilometres of network

Growing population



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

Water companies are required to meet this challenges while also protecting and improving the environment

SWW's Supply Area

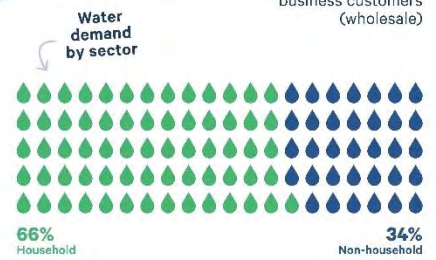
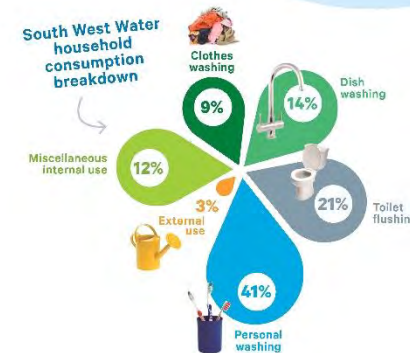
South West Water provides water for 2.2 million people living and working in Cornwall, Devon, and parts of Somerset and Dorset as well as in the Bournemouth area and the Isles of Scilly.



DID YOU KNOW?

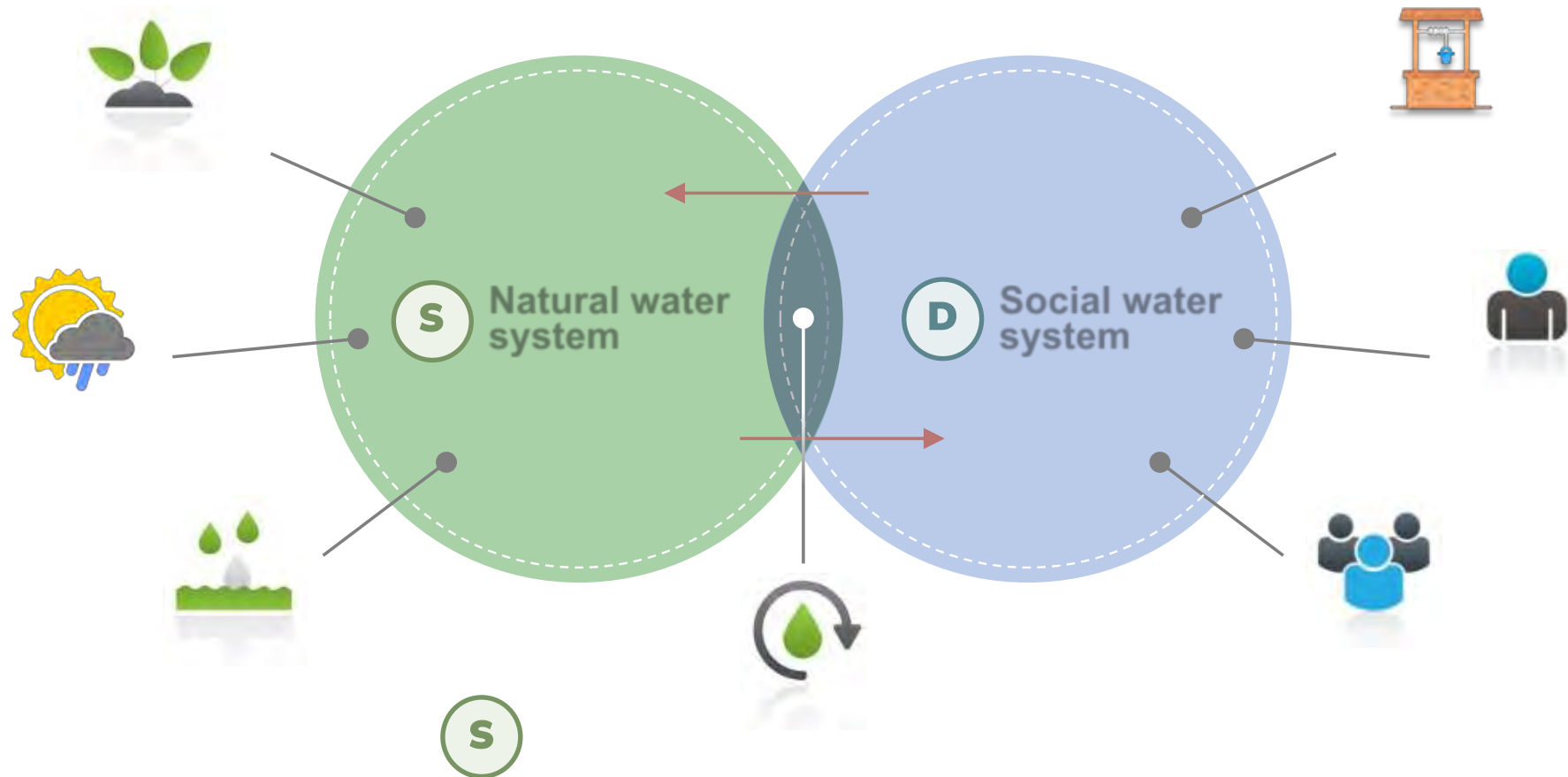
We supply an average of **490 million** litres of water each day

We have over **80,000** business customers (wholesale)



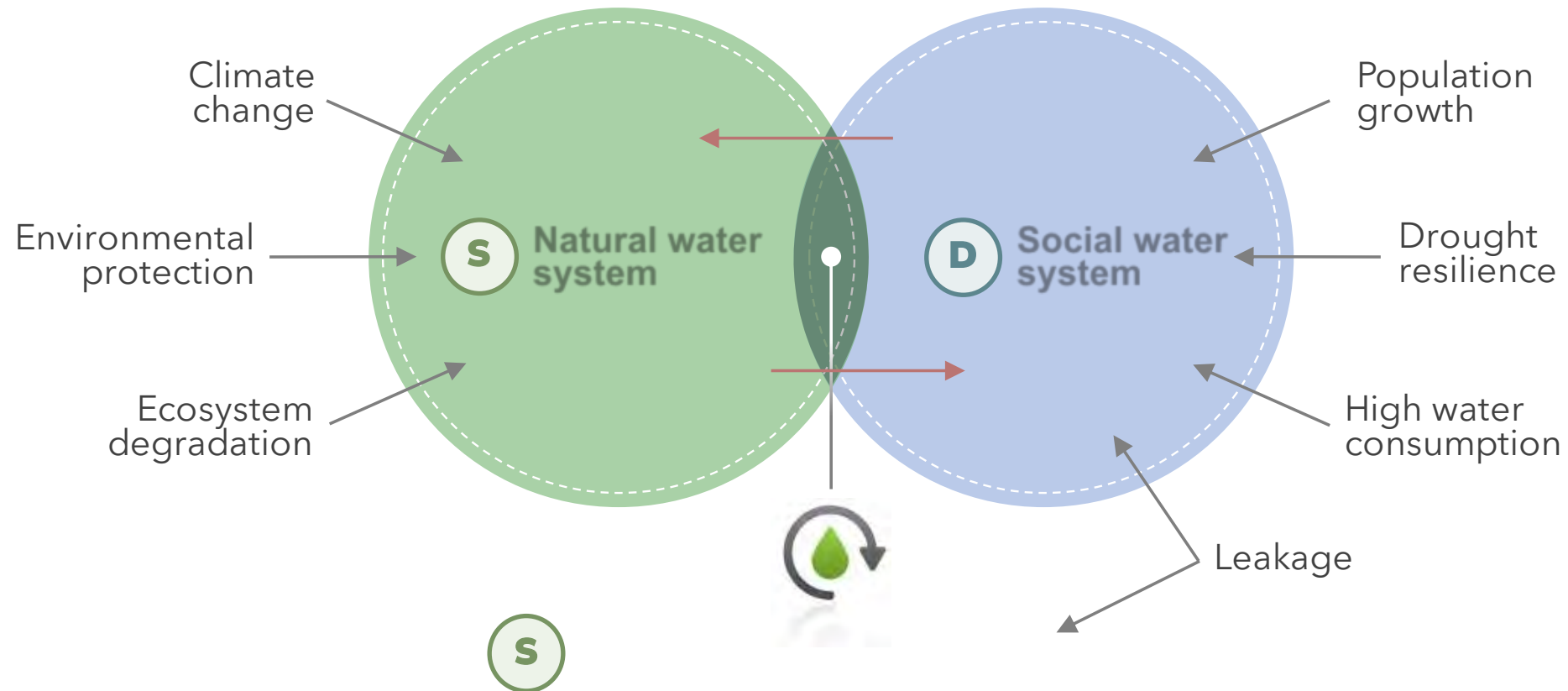
Water Resources Management

What is 'water resources management'...?



Water Resources Management

Challenges...



Water Resources Management

Projected surpluses and deficits in 2050: low flows



Environment Agency projected surplus or deficits – Local assessment (WBs) of possible impact

By 2050...

AVERAGE DAILY TEMPERATURES could increase **up to 18°C**
increase of 2.2°C

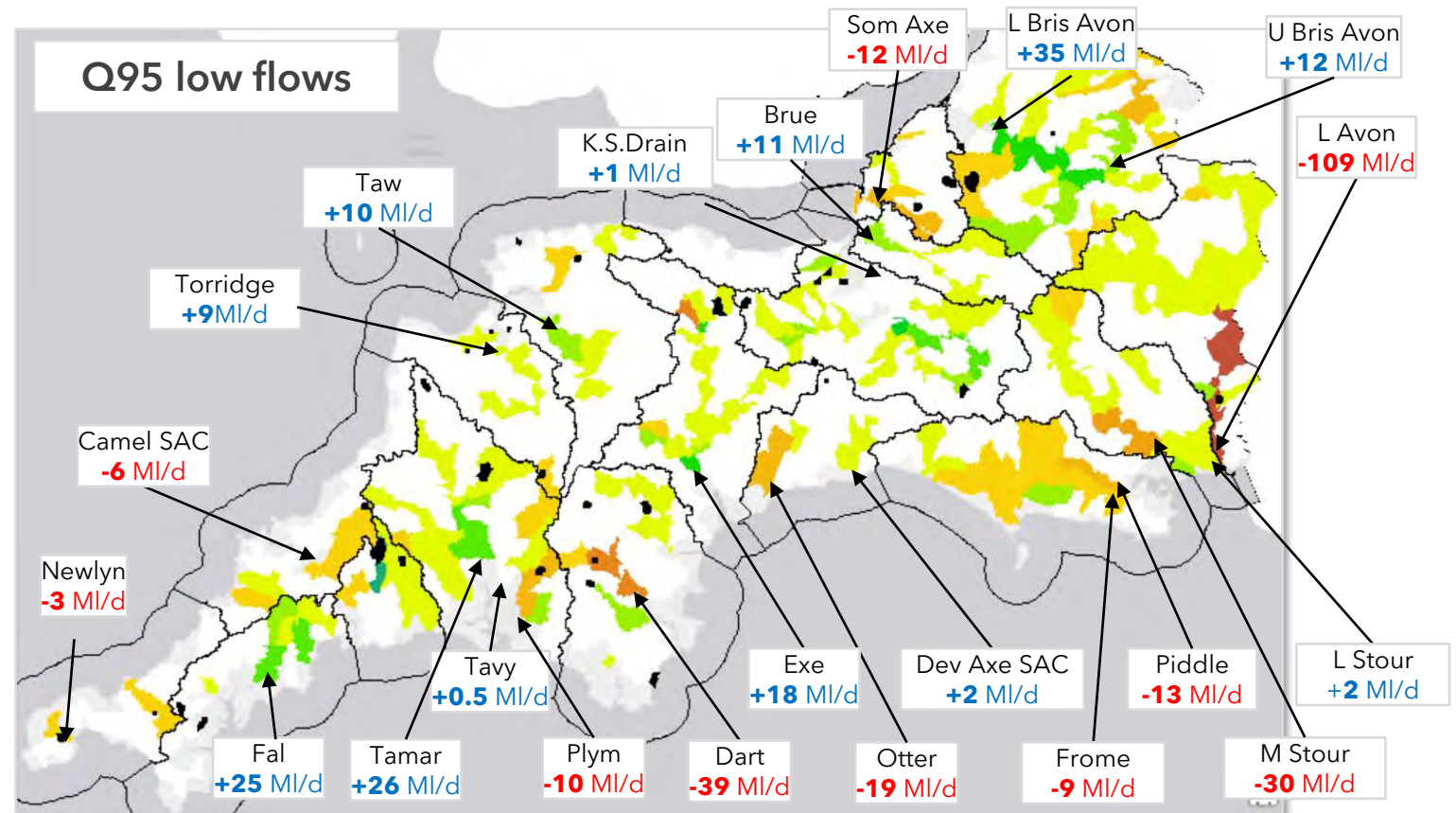
AVERAGE SUMMER DAILY TEMPERATURES could increase **to 23°C**
increase of 3°C

A **16-fold increase** in the frequency of **heatwave events** above 30°C

We can expect **much drier summers**

50% chance of summers as **hot as in 2022**

Rainfall in the region will become **much more variable**



Catchment boundaries and **reservoirs** also mapped in black

Draft Water Resources Management Plan

2025 -2050

- Secure supply of water to customers, while also protecting and enhancing the environment
- Forecasts water supply and demand out to 2050 and identifies any risks to supplies
- Identifies the 'best value' programme of action to maintain reliable and resilient water supply
- WRMP is a statutory requirement set out in legislation - we must review and update it every 5 years

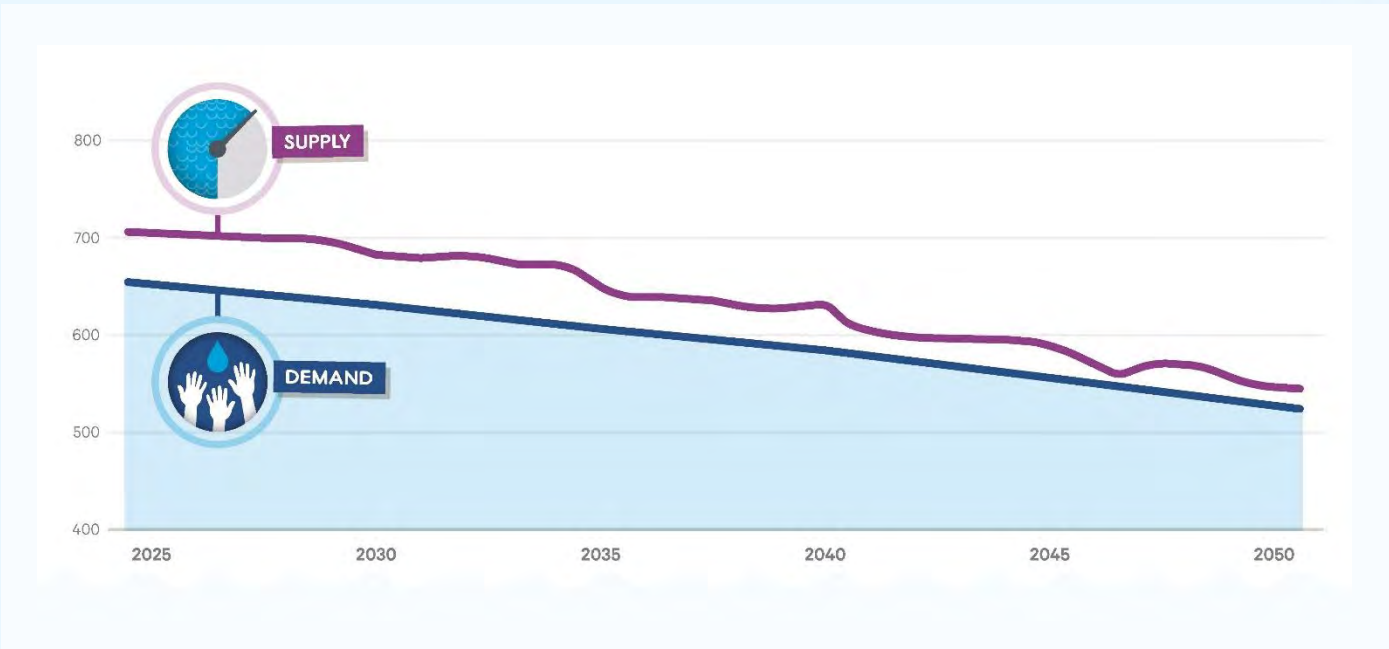


Water Resources Management Plan

Our 'Roadmap' to meet the challenges

To meet the challenges of the future, we have developed a 'roadmap' that includes a blend of demand-, supply- and environmental-solutions

In our plan, we have presented supply and demand solutions for each of our Water Resource Zones



OVER THE NEXT 5 YEARS...

REDUCING DEMAND

We will continue to improve metering. Introducing the compulsory metering recommended by the Environment Agency for water scarce areas will give greater insight we can use to improve water efficiency and leakage management. We'll help customers with advice and finding and fixing leaks on their properties and we're reviewing new technologies and equipment suitable for use on the islands.



INCREASING SUPPLY

We will be harvesting the benefits of major investment before 2025 to improve water quality in line with the targets set by the Drinking Water Inspectorate. This will also improve the resilience of our water treatment works and the volume of water they can produce. We will continue to optimise the balance between taking water from boreholes and the sea to minimise our overall environmental impact.



REDUCING DEMAND

Consistently working at our current rate to reduce leaks, we will keep working towards a **50% reduction by 2050**. As the Bournemouth area is designated as 'water stressed', we will follow guidance from the Environment Agency to begin metering all properties in the supply zone.



Investment
£27.5 million

New or replacement meters over 5 years

41,524 meters

Total water savings from metering

2.82 megalitres

INCREASING SUPPLY

We are planning an additional borehole to put more water into supply from groundwater in the south east of the Water Resource Zone and aim to make smarter use of sources on the Stour by changes to our licences.



Investment
£1.7 million

Additional water available

1 megalitre

Water Resources Management

Demand-reduction solutions

It is vital that we deliver solutions that reduce demand for water.



Preventing and fixing leaks



Installing smart meters



Promoting water efficiency: households and non-households



Water Resources Management

Solutions that increase supply

It is also vital to deliver solutions that increase the supply of water.



Storing more surplus water



Using river water wisely: location and level of abstraction



Increased sustainable use of groundwater



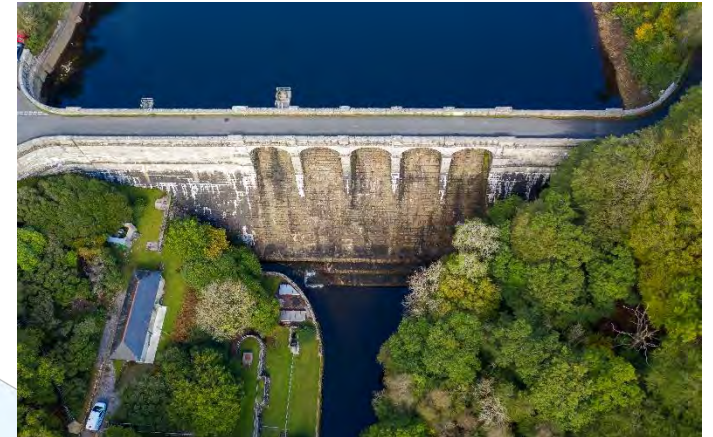
Recycling or re-using wastewater



Balancing the flow of water: timing, capacity, connectivity



New sources of water: quarries, desalination,



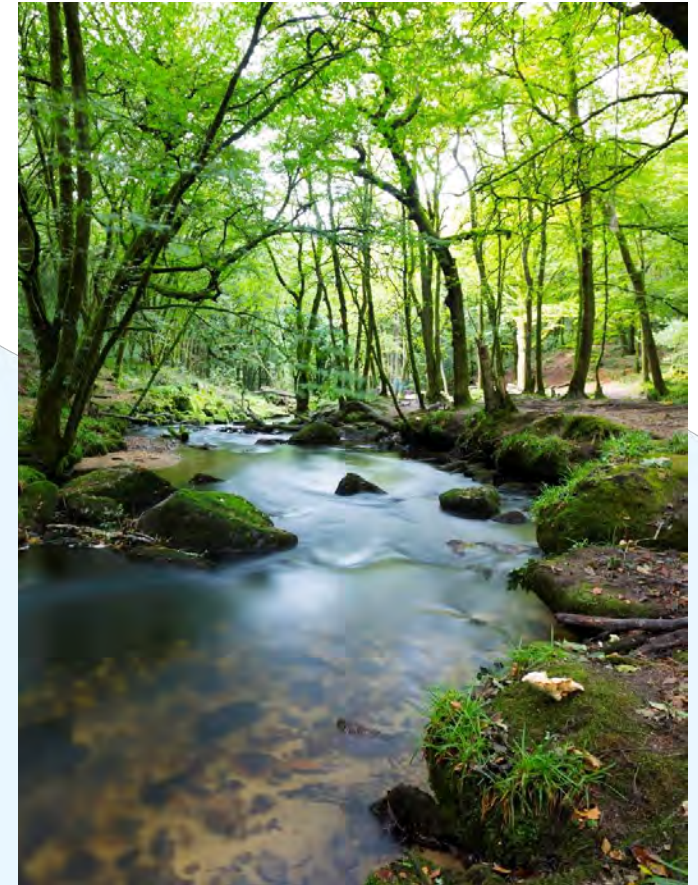
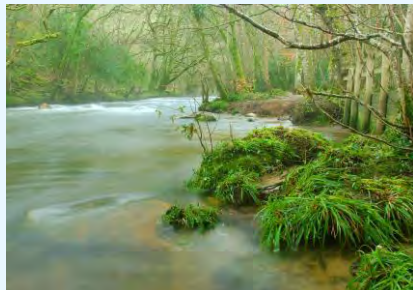
Water Resources Management

Environmental Destination



What is Environmental Destination?

- Our environmental destination sets out how we will achieve and maintain sustainable abstraction to 2050 and beyond.
- It takes account of climate change impacts and likely future demand
- Additional to the requirements under the WINEP



Water Resources Management

Environmental Destination

Our WRMP Environmental Destination commitments

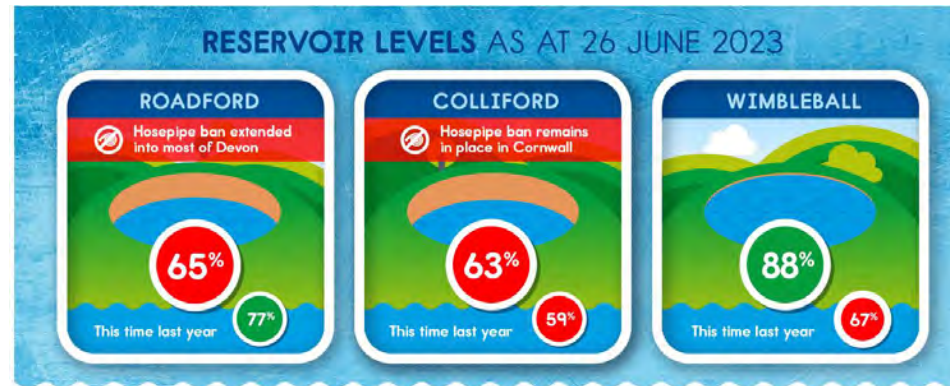
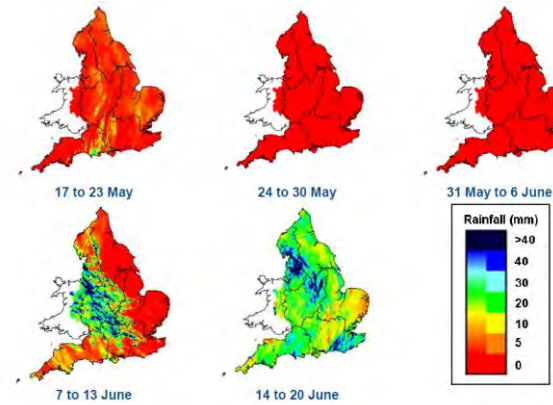
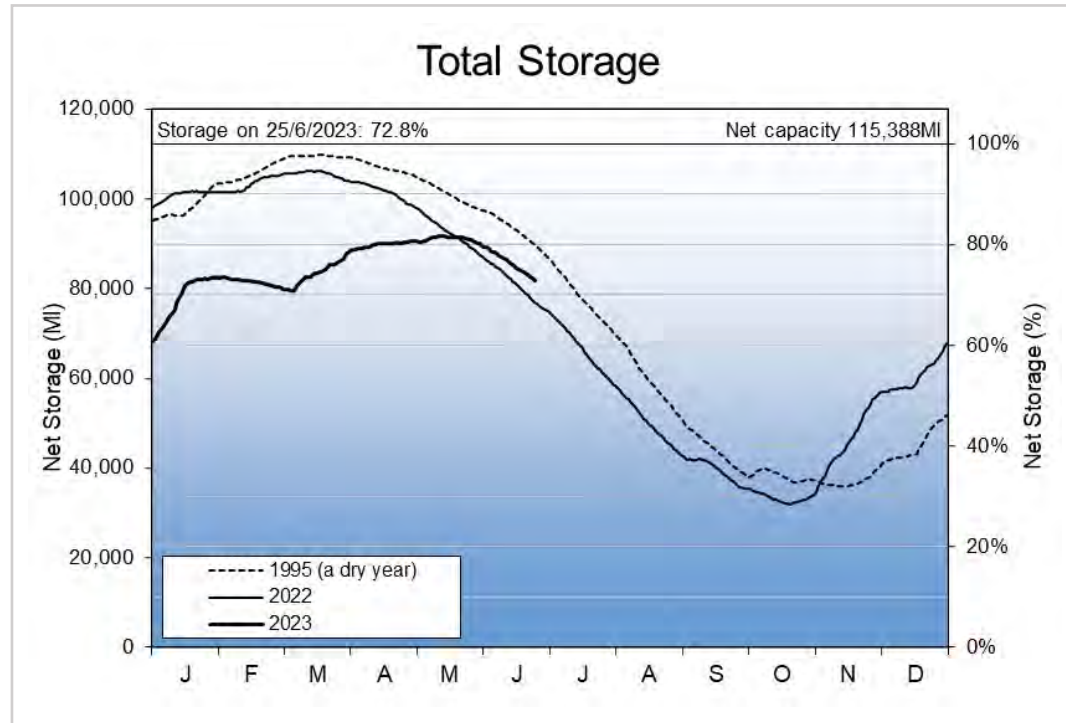
- Creating more storage options for water so that we can keep rivers fuller in drier periods
- Seeking to change abstraction licenses to better reflect the balance of supply and demand
- Funding projects alongside our investments to bring larger environmental benefits.

Implementations and investigations –

- River restoration schemes
- Nature-based solutions
- Land/catchment management
- Nature Recovery (BNG) Fund
- Water Net Gain Pilot
- Upland/Peatland restoration



Prolonged dry weather



www.southwestwater.co.uk/environment/water-resources/current-reservoir-storages/

Prolonged dry weather

1. Safely taking spare water
2. Identifying new sources of water



Prolonged dry weather

3. Detecting and fixing leaks

1. Increased capacity of existing leak detective team
2. Created leak taskforce
3. Sniffer dogs

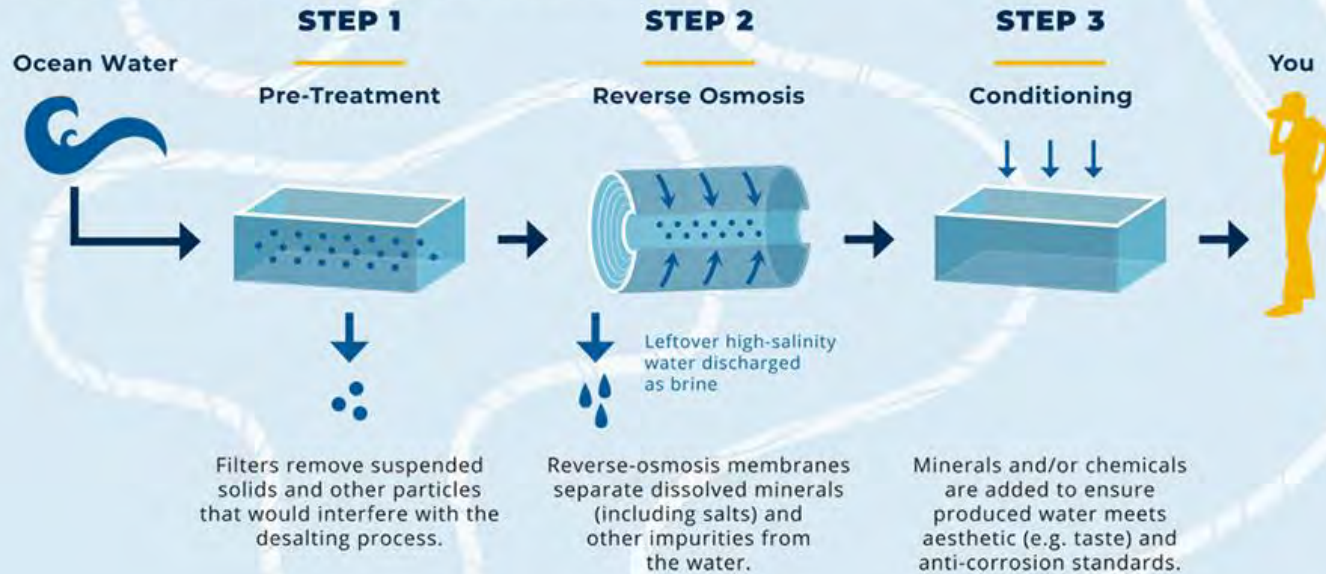


4. Desalination



WHAT IS DESALINATION?


Desalination uses reverse osmosis technology to separate water molecules from seawater. Water from the ocean is forced through thousands of tightly-wrapped, semipermeable membranes under very high pressure. The membranes allow the smaller water molecules to pass through, leaving salt and other impurities behind.



5. Save Every Drop

SAVE EVERY DROP

Ordinary steps really do make an extraordinary difference.




FREE water-efficiency audits

FREE Water-efficiency audits

Take advantage of our audits that help identify areas where you could become more efficient every day. FREE devices, FREE fixes and FREE advice all in one.

[Find out more ▶](#)




FREE Leaky loo repairs

FREE Leaky loo repairs

Got a leaky loo? Even a small leak can add up to a huge amount of unnecessary consumption. Get it fixed for FREE and get your bills down.

[Let us know ▶](#)




FREE Supply pipe find and fix

FREE Supply pipe find and fix

Suspect you have a leak on your supply pipe? Usually, they're the responsibility of the landowner, but we're offering to find and fix some of these suspected leaks for FREE.

[Report your leak ▶](#)



Holiday Park Water audits/Flow moderators


Holiday Park Water audits/Flow moderators

Specifically for holiday-company-owned static vans and lodges across Cornwall, we're offering flow moderators for FREE (including fitting). Easily save water and money with a simple install!


[Find out more ▶](#)

www.southwestwater.co.uk/services/save-water/


SAVING EVERY DROP in your home and garden



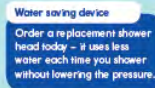
Use any leftover water at the end of the day to water your houseplants.




Choose a shower instead of a bath. An average bath uses 80 litres of water.




Install a water butt in your garden to collect rainwater and use on your plants.



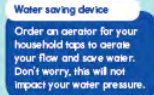
Water saving device
Order a replacement shower head today - it uses less water each time you shower without lowering the pressure.




Turning off the tap whilst brushing your teeth can save 6 litres per minute.




Use the short flush button on a dual flush toilet to save water each time you flush.




Water saving device
Order an aerator for your household taps to aerate your flow and save water. Don't worry, this will not impact your water pressure.




Use a watering can instead of a hosepipe to water your garden.




Using the washing machine when you have a full load can save 20 litres and reduce your energy consumption.




Only fill the kettle with what you need - this will save water and electricity!



Let your lawn go brown in the summer months, it will soon bounce back again when it rains.



A full dishwasher load on an eco setting is more efficient than washing dishes by hand.



It's vital to check your home for leaks regularly - please visit our website to find out more.

To get your water-saving devices now, go to: southwestwater.co.uk/save-water

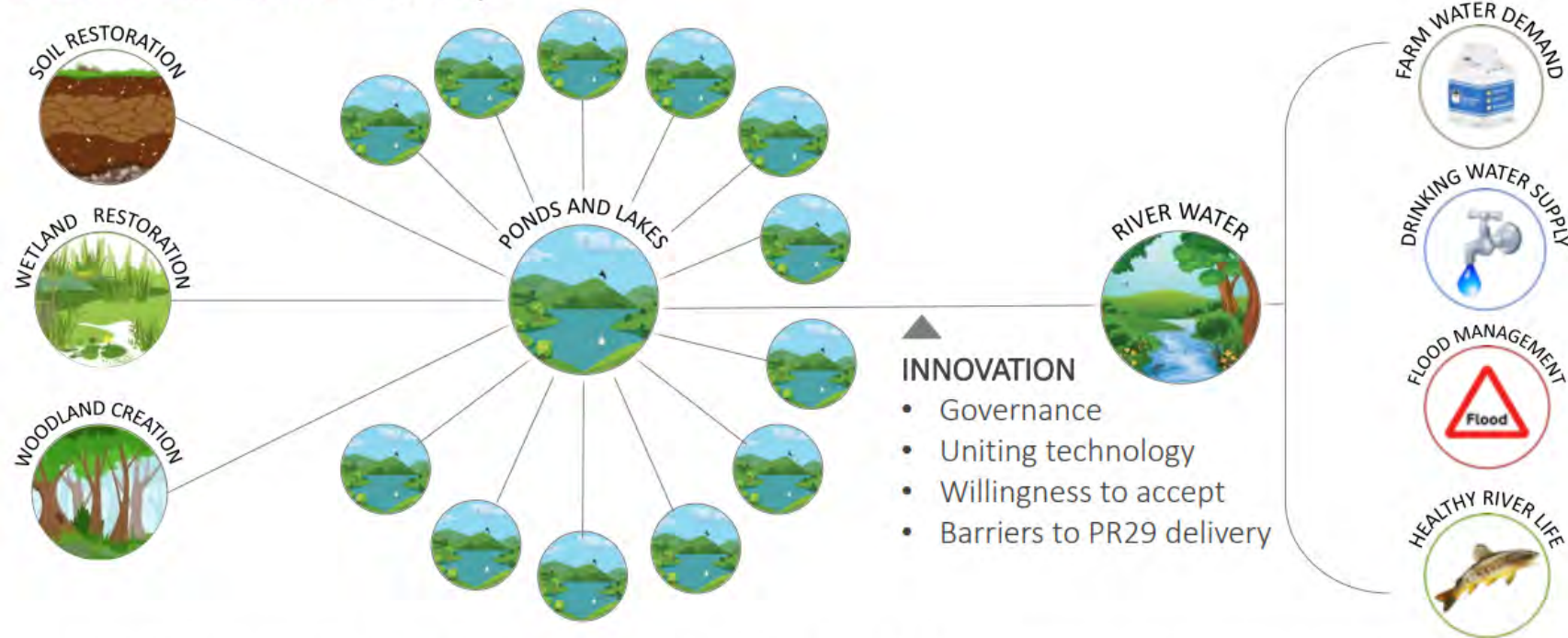
SAVE EVERY DROP

Ordinary steps really do make an extraordinary difference.

South West Water

Ofwat Innovation - Water Net Gain

Water Net Gain – Concept



Use Nature Based Solutions to passively contribute to base flows alongside a distributive ecologically connected network of smart ponds offering usable flow to reduce farmer demand, increase supply during drought, dilute summer pollution and provide a net gain for river water.

