

Water Resources South East

Regional plan for South East England

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Organisational Director

Introducing Water Resources South East

WRSE is an alliance of the **6 water companies** in South East England.

Affinity Water



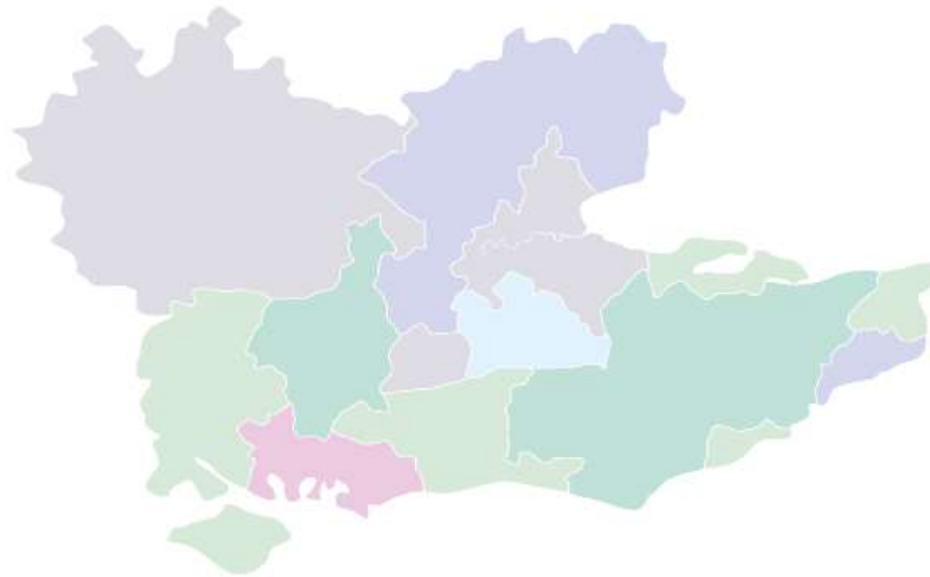
south east water



Together they supply **6 billion litres** of water each day.

We're planning **50 years** ahead to provide enough water for the future through a regional plan.

We're also planning for the needs of other sectors such as agriculture, industry and power.



South East England's water resources



MAP KEY



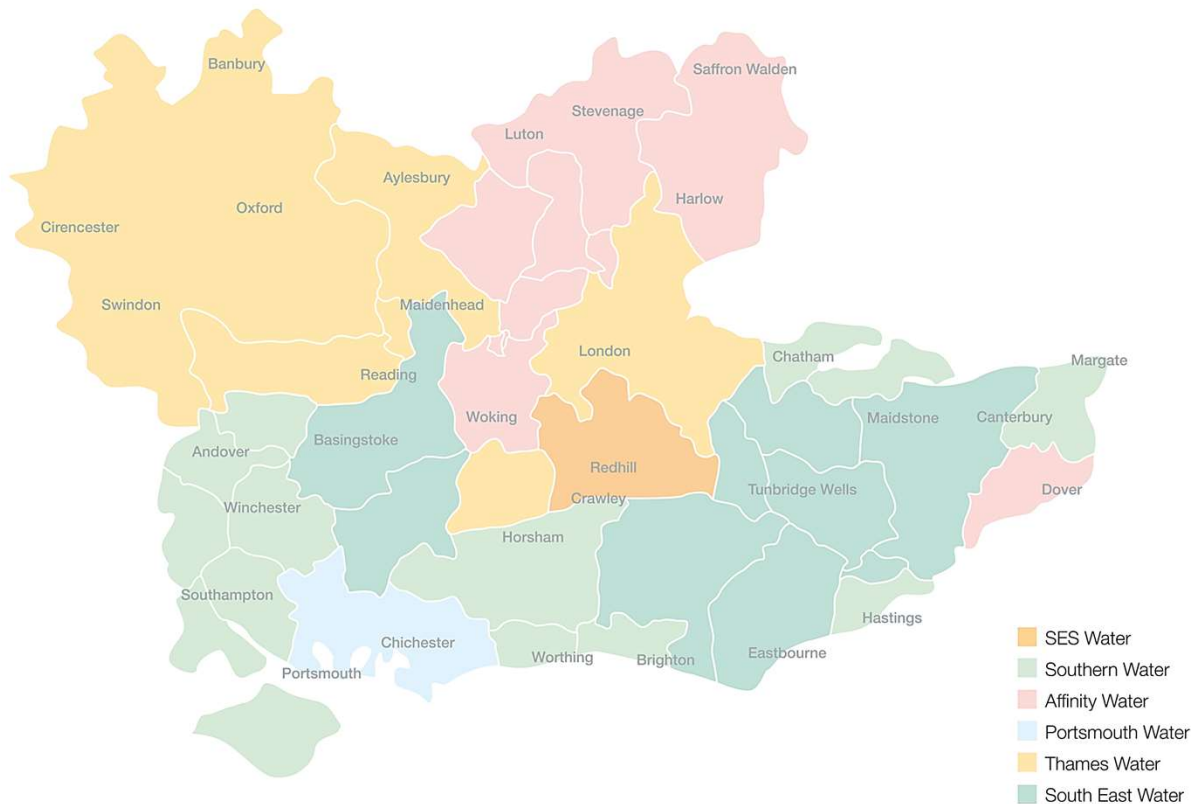
National Parks



Areas of Outstanding Natural Beauty

- A unique environment with numerous designated sites and protected areas
- 30 river catchments with more than 40 prominent chalk streams
- 64mm average rainfall per month compared to 81mm across England and Wales
- The whole region is designated as in serious water stress.

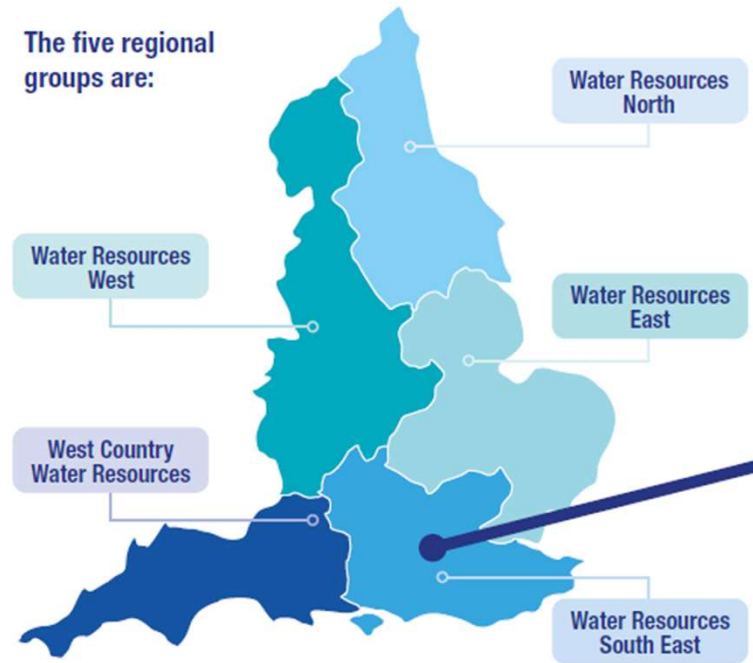
Public water supply in South East England



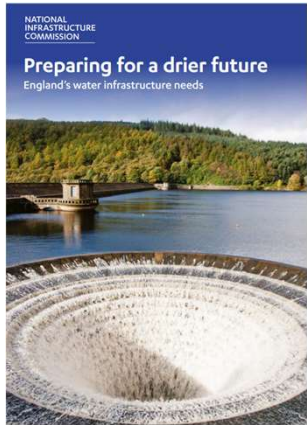
- Six water companies supply up to **6 billion litres** of drinking water per day to **8.2 million homes** and **2 million businesses**
- Household customers use **150 litres per day** (on average)
- More than half of this comes from groundwater – rivers and streams provide the rest
- **27 reservoirs** across the region
- Up to **400 million litres** of water per day can currently be moved around the region.

What is a regional plan?

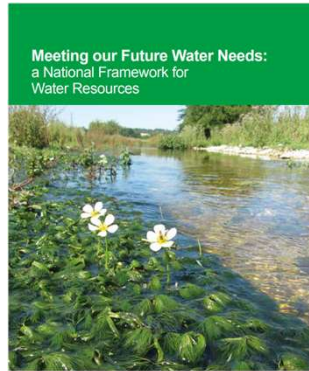
- A strategic plan that identifies the **future water needs of the whole region** – public and non-public water supplies
- Considers a **wide range of options** and identifies the **optimal programme** of activity to address the projected future shortfall in water supplies
- Is **adaptive** to deal with future uncertainties
- Aligns with the other regions and identifies opportunities to **move water from one region to another**
- Is ‘best value’, delivering **wider benefits** to people and places
- Achieves government policy to **increase drought resilience, improve the environment and reduce leakage and demand.**



Delivering national policy



- Increase drought resilience
- Improve infrastructure
- Halve leakage
- Reduce demand
- Strengthen regional planning



- Establish regional water resources groups
- Projected public and non-public water supply needs
- Projected future needs of the environment



- Set policy objective to increase drought resilience to a 1 in 500-year drought event by 2040



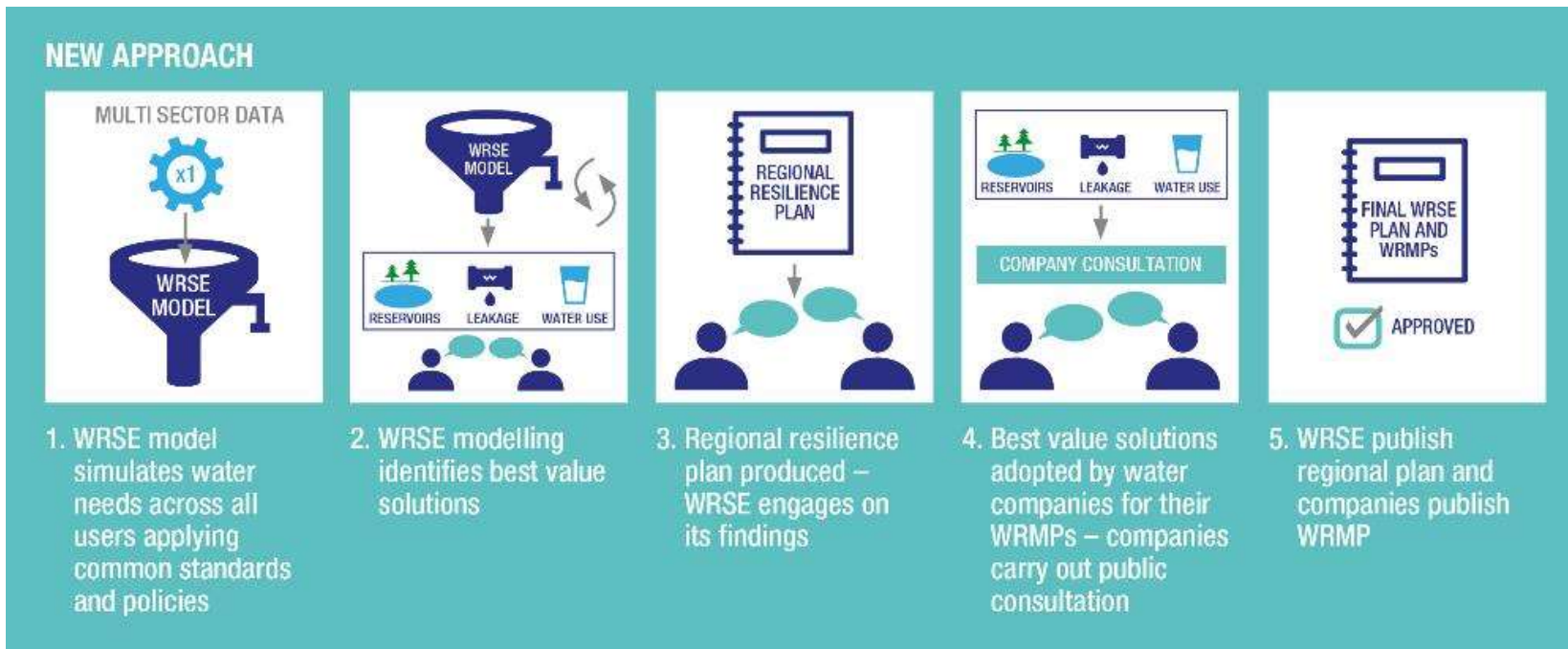
- Formalised long-term and interim targets for:
 - Leakage reduction
 - Household consumption
 - Non-household consumption



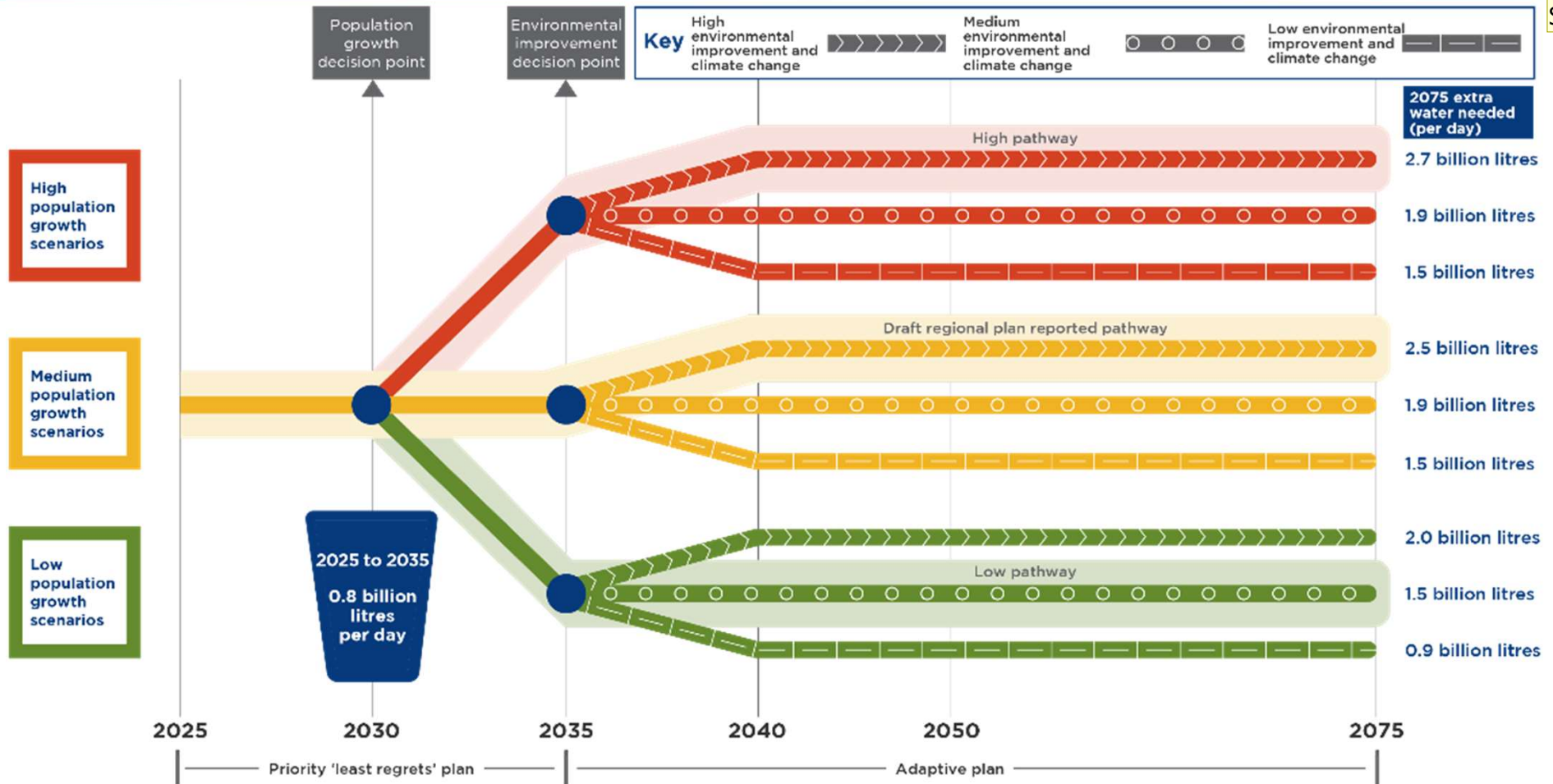
- Accelerate investment in water infrastructure
- Reduce abstraction from chalk streams
- Increase water efficiency through minimum product standards
- Encourage accelerated smart metering

WRSE regional approach

- In September 2019 WRSE set out our new approach to developing a regional plan, unlike other plans this time the regional plan would feed into the companies WRMPs by providing them with a regional WRMP
- This required a lot of work to define consist approaches, data sets, models and policies across the companies over the last five year period



Planning for an uncertain future



Slide 8

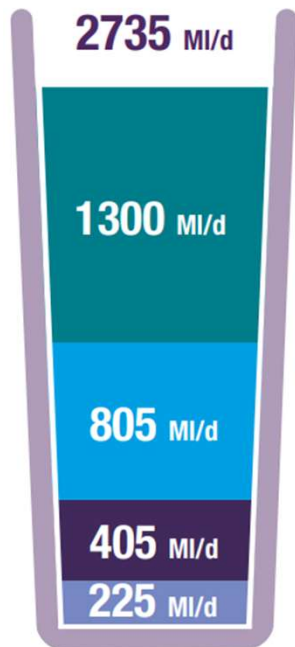
SEO

Lee - double check these figures are correct after the last-minute changes to the rd plan document

Stephanie Ellis, 2023-09-06T09:10:01.980

The regional challenge

If we do nothing, we could face a public water supply shortfall of nearly **1 billion** litres of water per day by 2035 and **2.7 billion** litres of water per day by 2075.



More water is needed to:

- Improve the environment by leaving more water in rivers, streams and underground sources i.e., aquifers
- Supply a growing population (households and businesses)
- Make our water supplies more resilient to drought
- Counter the future impacts of climate change

Investment in water resources provides opportunities to:

- Deliver biodiversity net-gain
- Increase Natural Capital
- Restore the natural environment and help it adapt to climate change
- Provide community amenities and enhance well being
- Make communities and businesses more resilient to climate change

The regional solution - headlines



Accelerated reduction in leakage and consumption – provides two thirds of the water shortfall in the first decade meeting the Government’s interim and long-term targets (50% leakage reduction and household consumption of 110 l/p/d by 2050)



Water recycling at 6 locations by 2035 and a further 3 by 2075 – a critical option to increase drought resilience and enable abstraction reduction from sensitive water sources



5 new reservoirs to store more water – with strategic transfers to be developed to move water around the region



Grand Union Canal to move water from the West Midlands to the South East by 2032



Desalination at locations around Kent, East and West Sussex – could be required beyond 2035 to replace existing abstractions from the environment but a more strategic solution to be investigated.

Reducing demand for water

- Reduce leakage by 20% by 2027, 30% by 2032 and 50% by 2050
- Reduce household customer usage by 9% by 2027 and 14% by 2032, to achieve 110 l/p/day by 2050
- Combined these two activities could save **860 million litres of water per day by 2035**
- Demand reduction targets rely on **new government policy** – water labelling (short term), minimum product standards and strengthened building regulations
- Water companies to roll out smart meters, smart networks, data-led water efficiency and leakage programmes and increase main renewal
- **Collaboration needed to support the successful delivery of these activities locally, encourage behaviour change, build water efficient new homes and share learnings.**

Figure 3: Percentage contribution of schemes to reduce demand between 2025 and 2035

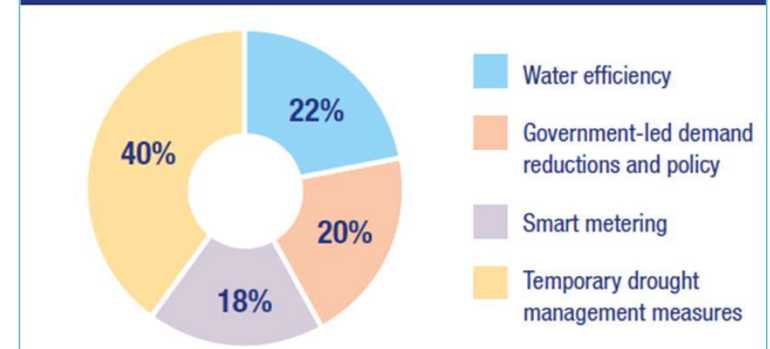
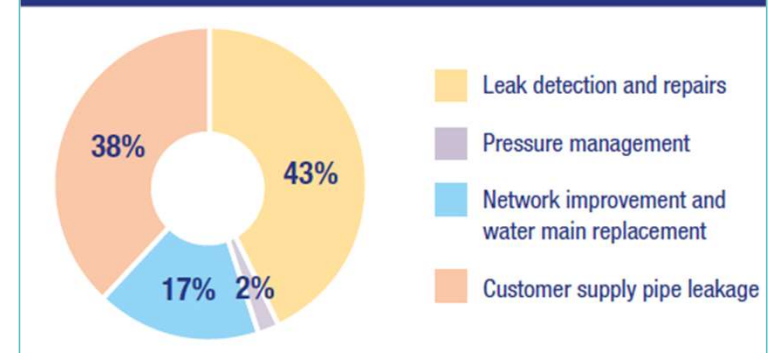


Figure 4: Percentage contribution of leakage schemes between 2025 and 2035

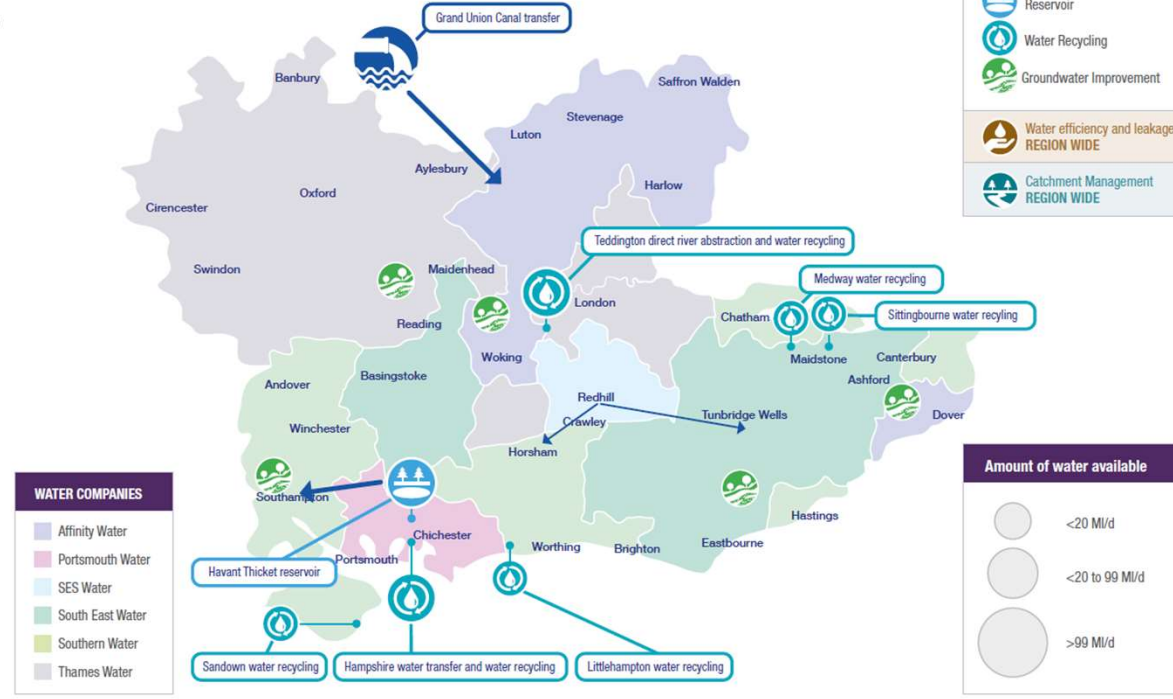


Water recycling

- Six water recycling schemes form a critical part of the regional solution between 2025 and 2035
- Involves treating wastewater to a higher standard before releasing it into a river or reservoir where it mixes with other sources before being treated to drinking water standard
- Customer acceptance and successful delivery of this scheme is essential for resilience and environmental protection
- Companies are facing local opposition to these schemes in some areas
- **How can we work together to successfully deliver water recycling?**

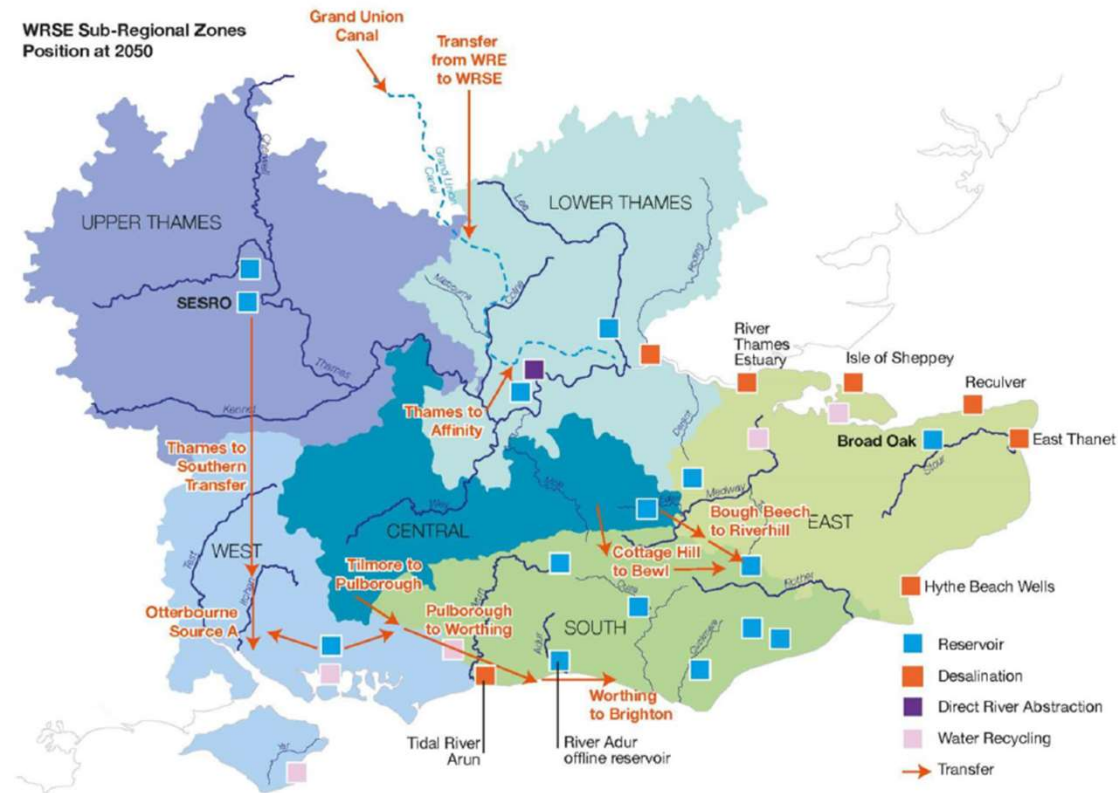
The next 10 years (2025 to 2035)

This shows the location of the main schemes needed in our plan.



New reservoirs and transfers

- Reservoirs in Oxfordshire and Kent to be progressed and the River Adur offline reservoir in West Sussex further investigated
- Havant Thicket reservoir in Hampshire to be completed by 2030
- Strategic transfers will enable more water to be moved around the region
- The Grand Union Canal will be used to transfer water from Severn Trent in the midlands to Affinity Water in Hertfordshire.



Regional plan 2029



- Government expects closer working with local authorities for the next round of regional plans
- We need:
 - Robust evidence of future water needs including to meet population growth and address climate change
 - To better integrate other sectors needs and shared solutions into our plan to increase their resilience and support growth
 - To identify new options including more catchment solutions to deliver wider benefits – opportunities to link with local nature recovery plans and increase natural capital
 - To improve water efficiency and demand management – incorporating new technology, sharing best practice and reducing delivery risks
- **Work on the next regional plan begins this year!**

Next steps for collaboration

1. Work more collaboratively on the delivery of demand reduction activity, share learnings and best practice in customer behaviour change and develop new solutions for the next regional plan
2. Actively involve local authorities in the development of the next regional plan including development of the future demand forecast, better integrate the needs of the environment and other water users and enable links to be made with economic growth and nature recovery
3. Work collaboratively on demand reduction activity to help increase the resilience of communities, businesses, housing and farming and food production to climate change. We can share learnings and best practice in customer behaviour change
4. Acting on the Government's review of building regulations and collaborating to build more water efficient homes for the future. Also supporting high water-using businesses (such as data centres) to reduce their water use
5. Delivering the new infrastructure needed to secure water resources
6. Contributing to the Nature Recovery Strategy across the region through our work to increase biodiversity, protect and enhance chalk streams and increase the resilience of our water sources.

Thank you

Any further questions please contact me:

email lee.dance@wrse.org.uk

visit our website www.wrse.org.uk