



# Water Resources Management Planning

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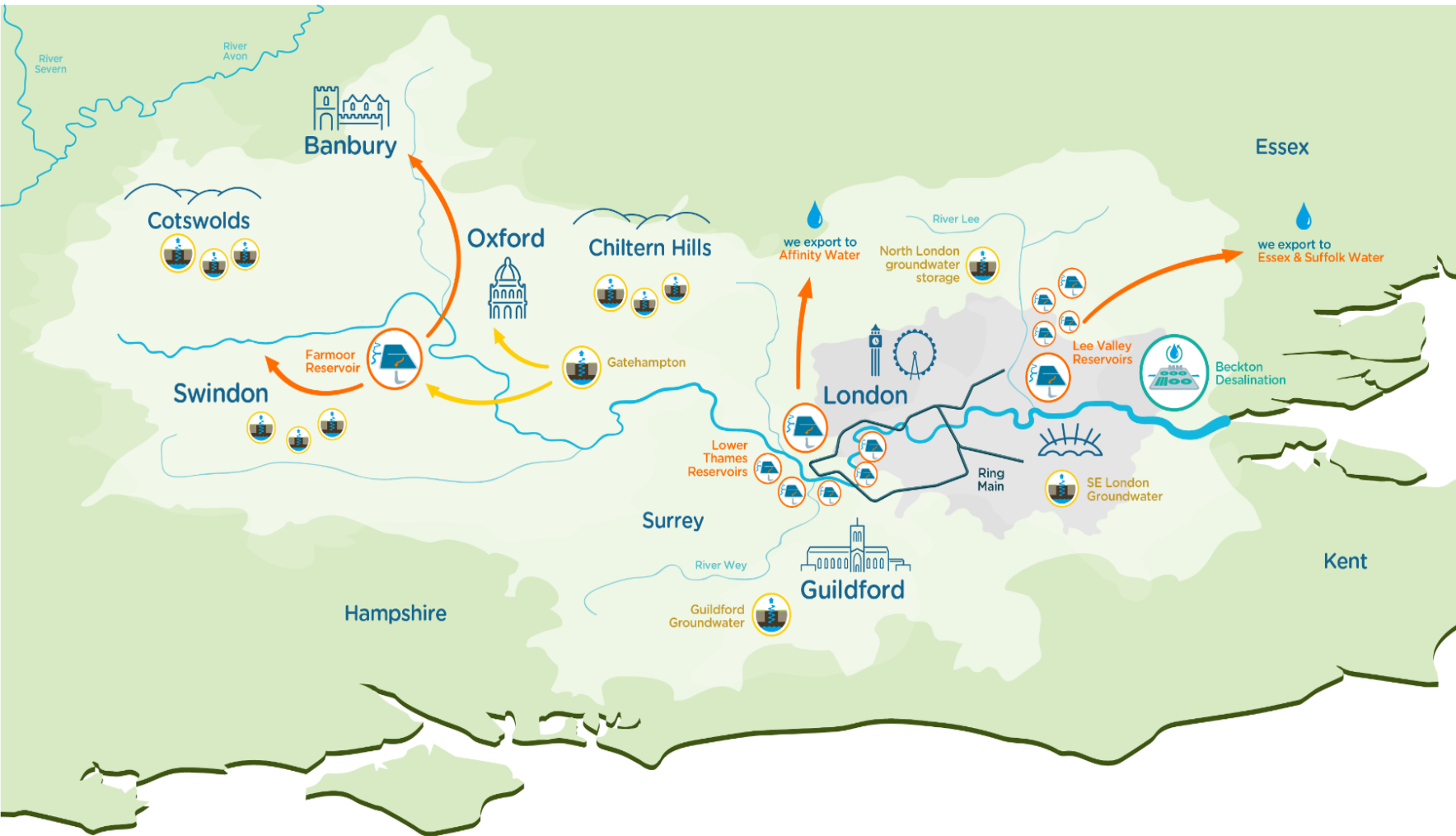
# Thames Water area



The UK's  
largest water  
and  
wastewater  
services  
provider

10 million  
water  
customers  
and 15 million  
wastewater  
customers

# Water services



We supply 2.7 billion litres of drinking water each day.

We operate 97 water treatment works, 26 raw water reservoirs, 308 pumping stations, and 235 clean water service reservoirs.

# Water Resources Regulation - Overview

- Government has responsibility for setting framework for water resources regulation
- Environment Agency is body with responsibility for water resources regulation on behalf of Government
- EA controls allocation of water to all users through abstraction licensing scheme
- EA also responsible for managing environmental protection and pollution control
- Water prices regulated by Ofwat – independent from Government
- Drinking Water Quality regulated by Drinking Water Inspectorate (DWI) on behalf of Government





# Water Resources Management Plan: Process

## Water Resources Management Plans: Specifics

Each Water Undertaker (“WU”) is under a statutory duty:

- to develop and maintain an efficient and economical system of water supply within its area and to ensure that all such arrangements have been made that are necessary to achieve that (s.37 Water Industry Act 1991 (“WIA 91”));
- to prepare, publish and maintain a WRMP which explains how it is to achieve this obligation (s.37A(1); s.37A(2) WIA 91).

## How often reviewed and prepared?

- Reviewed annually by the WU and a statement of the conclusions of that review sent to the Secretary of State (S.37A(5));
- If the annual review indicates a material change in circumstances a revised plan must be prepared;
- In any event a revised plan must be prepared every 5 years.



# Water Resources Management Plan: Process cont.

## Procedure for producing a WRMP\*

- The WU's publish a draft WRMP must be sent to all specified organisations and brought to the attention of any persons who may be affected by it;
- Any reps on it are sent to the Secretary of State.
- WU prepares a Statement of Response to the reps made explaining the consideration it has given to them, any changes made to the WRMP and why and if no changes have been made why not.
- The Secretary of State has a power to hold a public inquiry if that is considered appropriate.\*\*
- The Secretary of State may direct any changes to the WRMP which the WU must include before it is finally published.



\* S.37B WIA 91 Water Resources Management Plan Regulations 2007/727

\*\* Held under s.250 of the Local Government Act 1972

# Content of a Water Resources Management Plan

A WRMP must

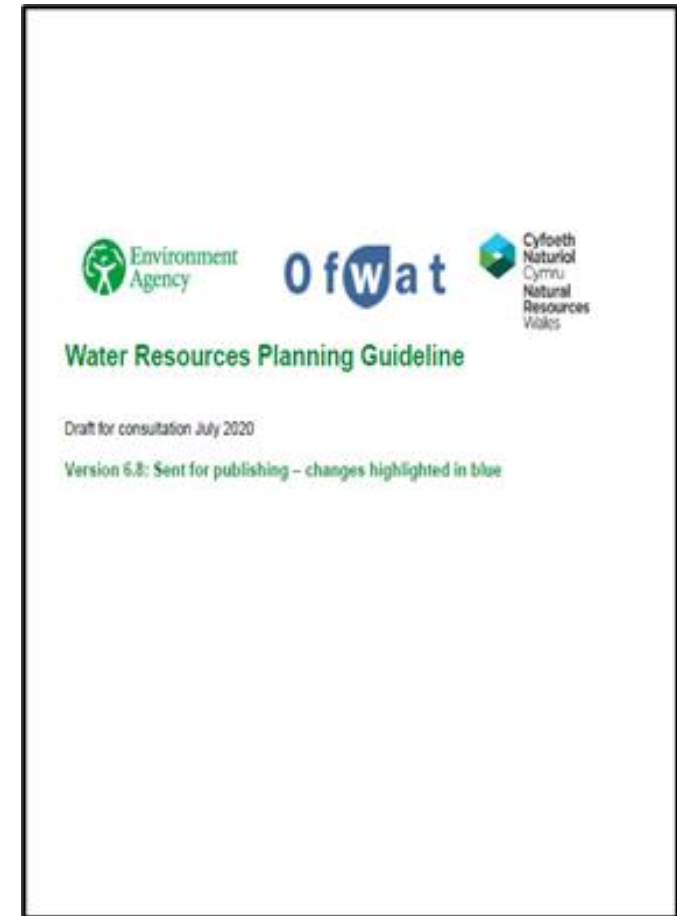
- Cover a planning period of “*at least*” 25 years\*

Must address

- A WU’s estimate of the **quantities of water required** to meet its statutory obligations;
- The **measures** a WU intends to take to comply with its statutory duty;
- The **likely sequence and timing** for implementing those measures.

Must include a description of:

- The appraisal methodologies used in choosing the methods to meet its duty and the reasons for choosing them;
- For the first 25 years of the planning period its estimate of the average annual risk expressed as a percentage that it may need to impose prohibitions or restrictions on its customers in relation to the use of water – (otherwise known as a WU’s Levels of Service) and how that may change over the planning period and the assumptions it has made to determine these risks including but not limited to drought severity;
- The emissions of greenhouse gases which are likely to arise as a result of each measure it has identified to meet its duty;
- The assumptions it has made as part of its supply and demand forecasts in respect of:
  - The implications of climate change;
  - Household demand including populations and housing numbers;
  - Business demand.
- Intended programme for domestic metering and the estimated costs and effectiveness of that;
- Leakage management, reductions and anticipated levels of leakage.



\*The Water Resources Management Plan (England) Direction 2017



# Policies that inform the preparation of a WRMP

## Guiding Principles for water resources planning (DEFRA May 2016)

- Encourages a longer period than 25 years to be taken;
- Encourages collaboration between WUs and the need to consider all options including those outside WUs boundaries

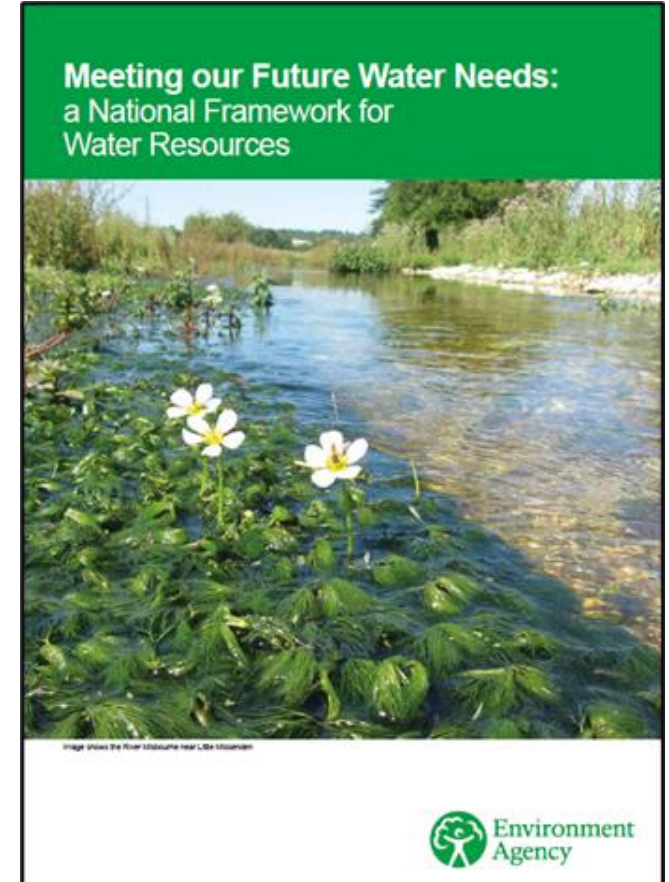
## Final Water Resources Planning Guideline (EA May 2016).

- Produced by the regulator from time to time following consultation;
- Detailed guidance on how to prepare, and what to put into, a WRMP;
- Emphasises the need for regional planning;
- Divergence from the Guideline likely to pitch WU against S of S/DEFRA/EA.

## Meeting our Future Water Need: A National Framework for Water Resources (EA 2020)

- Sets out a national framework re water supply and demand and the move to strategic regional water resources planning; explains the purpose of the five regional water resource groups; the role of regional plans and how they will be assessed and a time frame for their production (finalised Sept 2023). These have no statutory basis but will inform the next round of WRMPs. Finalised by 2024.

All WRMPs must be subject to Strategic Environmental Assessment and HRA.





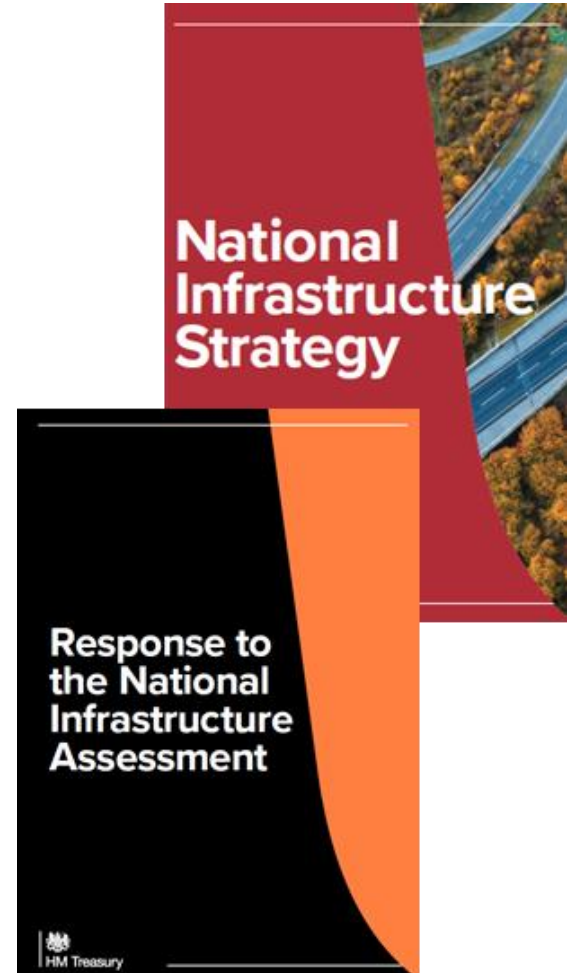
# What is on the (near) horizon?

## Environment Bill

- Royal Assent now not expected Summer 2021, deferred.
- Procedure for the preparation and review of WRMPs will be set out in regulations and directions in new sections of the WIA 91 (s.39F & S.39(G))\* . It is anticipated that the regulations will largely cover similar requirements to that that currently exist for the publication and preparation of a WRMP.
- Main change is a new power for the Secretary of State to direct WUs to prepare and publish a “joint proposal”. This is a proposal that identifies measures that may be taken jointly by the WUs for the purpose of improving the management and development of water resources. It may take a specified form; relate to a specified matter in relation to a specified area, by reference to a specified criteria on the basis of a specified assumption. This dovetails with the National Framework and the emphasis on regional planning.

## Draft National Policy Statement for Water Resources Infrastructure November 2018

- This has presently stalled.
- Out of date – looks forward to the 2019 round of WRMPs (which are now completed) and to the National Framework (which now exists).
- Makes it clear that it is through WRMPs that decisions will be made on what additional water resource infrastructure is required on a local, regional and national scale. If an NSIP is contained in a WRMP the need for that scheme will be taken to have been demonstrated and need does not need to be revisited as part of any application for a DCO.
- Emphasises the importance of the WRMPs in justifying a NS Water Infrastructure.



\* Clause 77

# What is on the (near) horizon?

## Draft Water Resources Planning Guideline July 2020

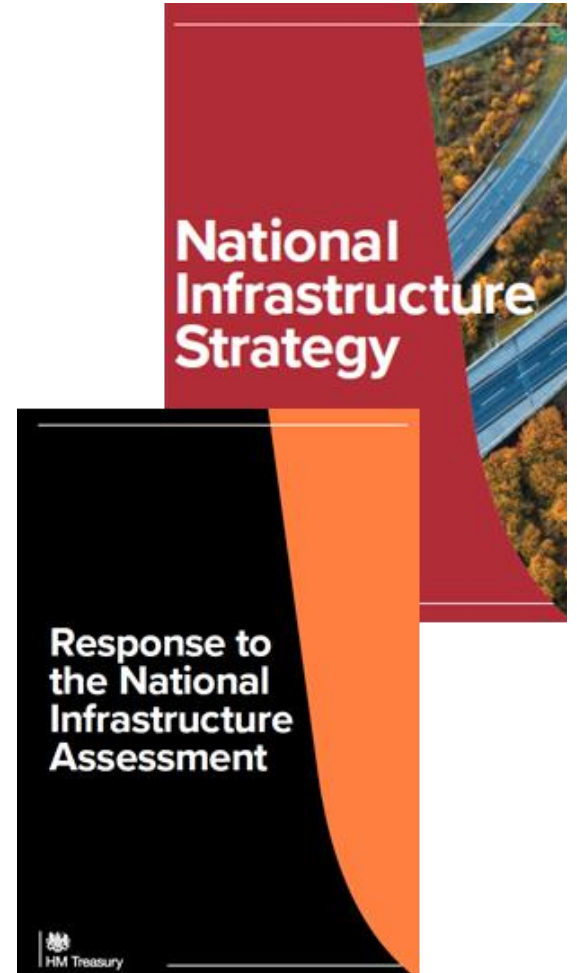
- A new more detailed draft guideline (dated July 2020).
- Consultation complete and a new finalised guideline is awaited.

## National Infrastructure Strategy (Presented to Parliament by the Chancellor of the Exchequer November 2020)

- The next round of WRMPs due in 2024 will be required to plan to deliver resilience to a one in 500 year drought (affect a WU's Levels of Service). (Currently one to 200).
- The Government is exploring the possibility of a statutory target to reduce water demand using powers in the Environment Bill;
- Commitment by WUs to reduce leaks by 50% by 2050.

## Take Away Points

- Emphasis on regional planning based on a national framework through a national strategy. All non-statutory.
- WU may be required by SoS to produce Joint Proposals but there is no opportunity to require or chose to prepare joint WRMPs.

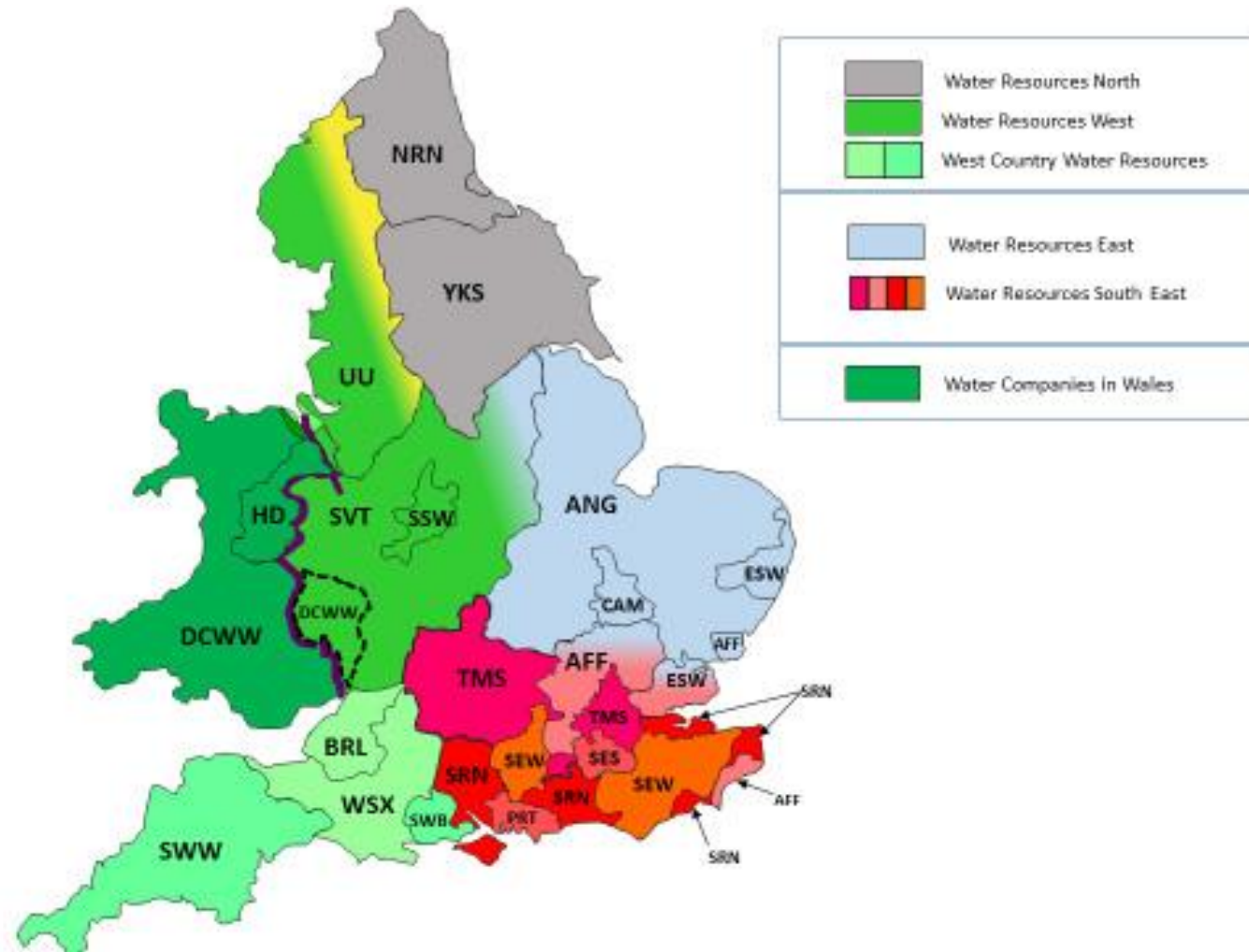




# Water Resources Management Plan 2024



# 5 Regional Water Resources Planning Groups





# EA Water Resources National Framework March 2020

If no action is taken between 2025 and 2050 around **3,435 million extra litres of water** per day will be needed for public water supply to address future pressures. This includes:

**1,150 million litres per day (MI/d)** to make water supplies more resilient to drought

**1,040 million litres per day** to supply the growing population

**720 million litres per day** to replace unsustainable abstractions and improve the environment

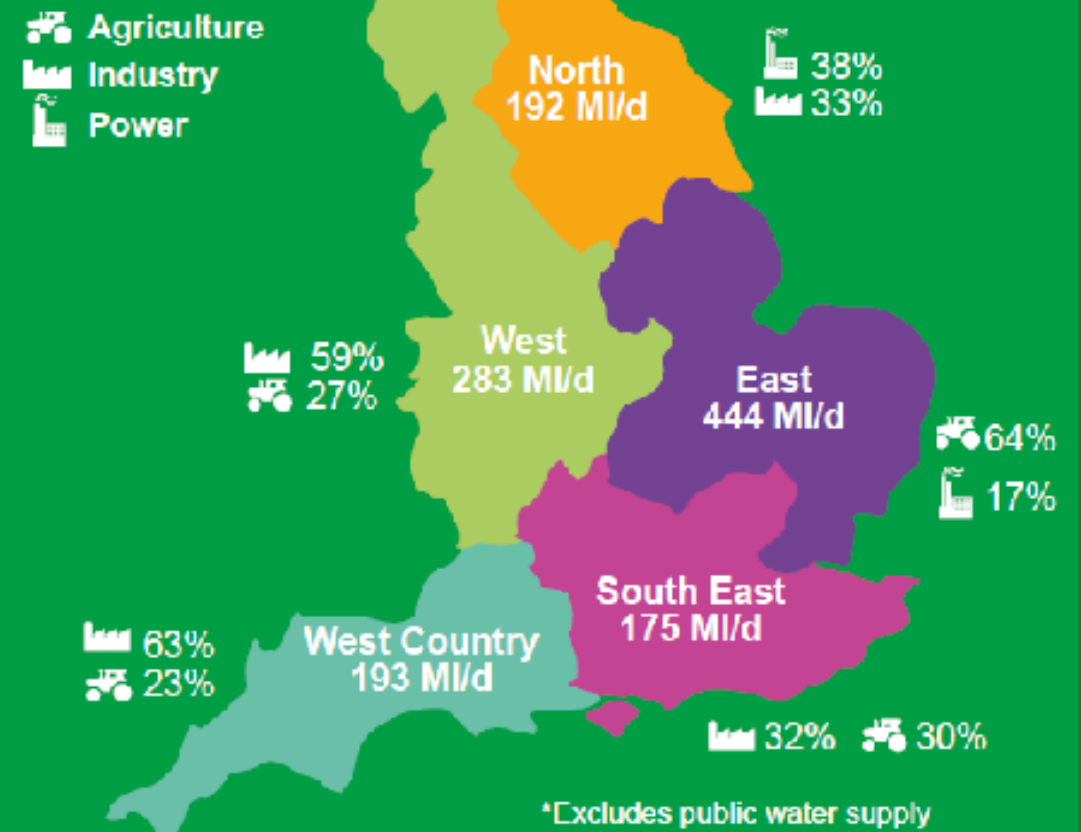
**400 million litres per day\*** to address the impact of climate change on water availability

Around **50%** of the national need is in the South East



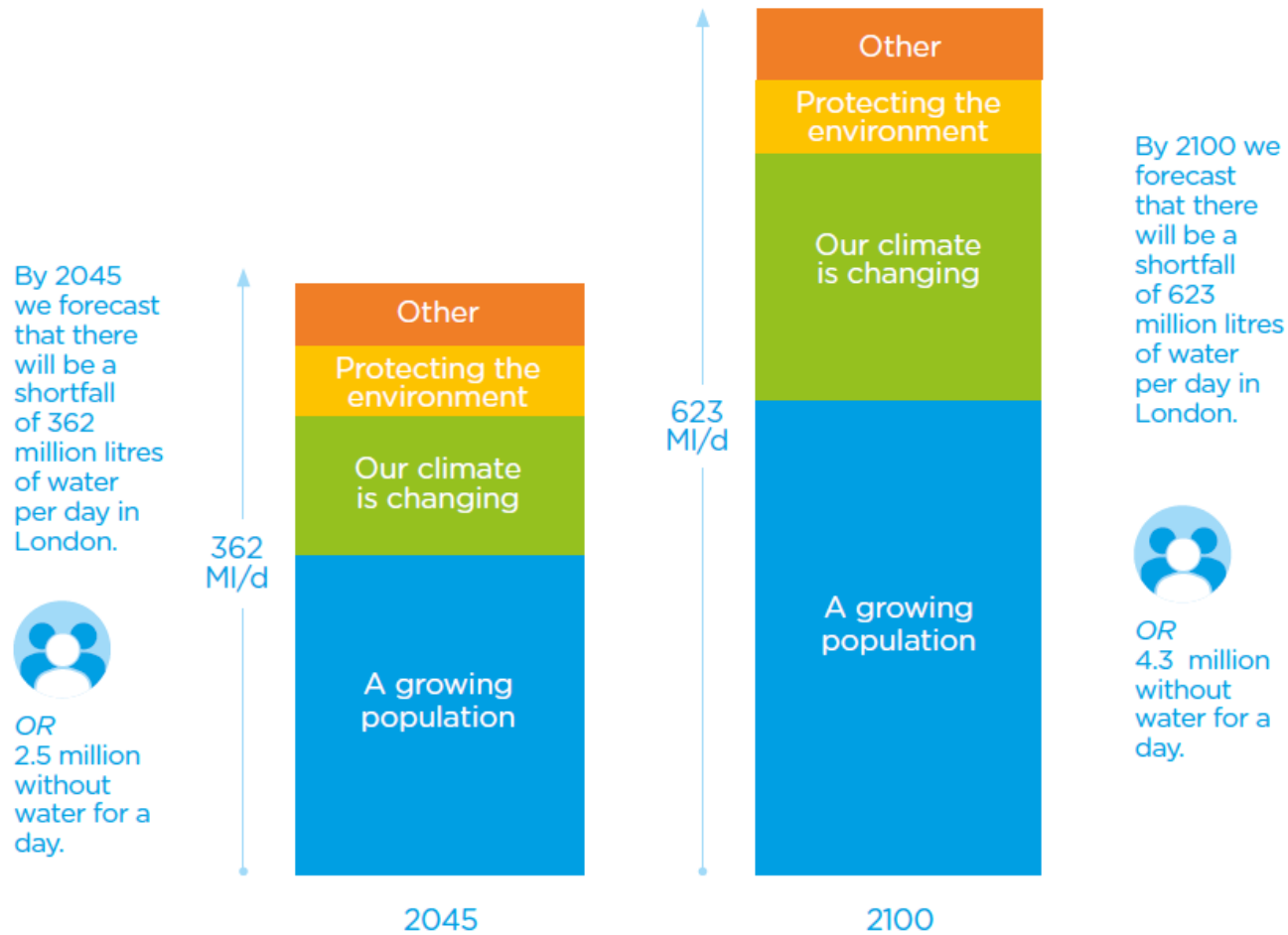
\*Water companies have included additional impacts from climate change of around 640 MI/d in their plans up to 2025 which is before the start date for this analysis

We've estimated how much water in total other users in each region will need at 2050 and which sectors will use the most\*



# Water Supply in London: Planning for the future

Our WRMP19 forecast that by 2045 there will be a water shortage of 360 MI/d



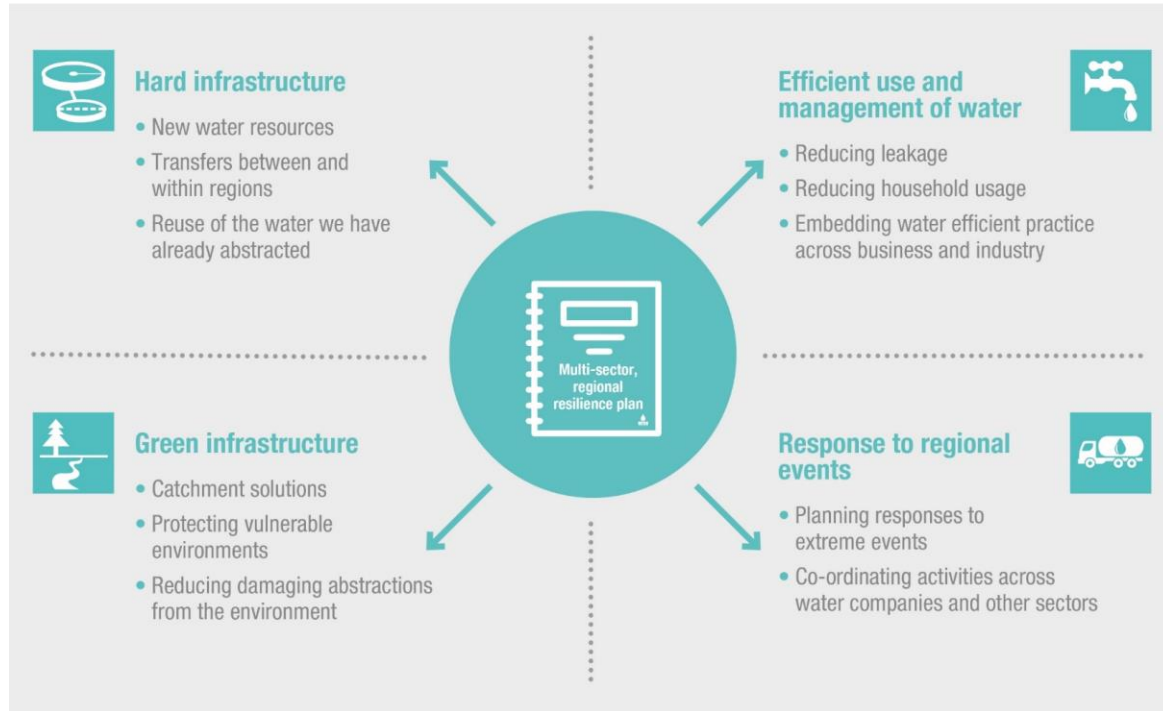
We forecast an additional 2.1 million people by 2045. That's the equivalent of Birmingham moving in.

By 2040, we expect more than half of our summers to exceed 2003 temperatures.

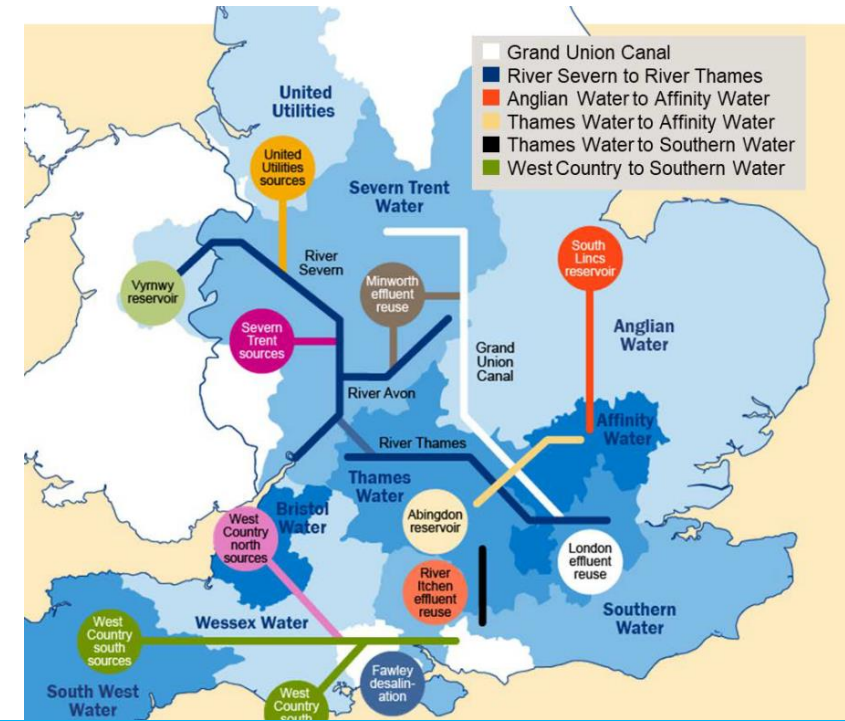
By 2050, the amount of water available could be reduced by 10-15%, with some rivers seeing 50%-80% less water during the summer months.

Set against a backdrop of reducing abstraction licences to protect sensitive chalk streams and other vulnerable water courses.

# We are looking at a wide range of options



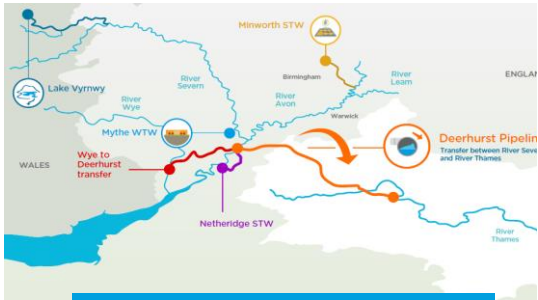
Water Resources South East are looking at a wide range of options – demand, infrastructure, resilience, catchment



Ofwat allocated funding at PR19 to examine strategic resource options. There are 17 SROs being examined by alliances of water undertakers and other partners. This work follows a regulatory gated process.

# Planning future water resources – Strategic Resource Options

SROs (5) – under investigation by TW, in collaboration with other partners, through RAPID's gated process



**Severn Thames Transfer**



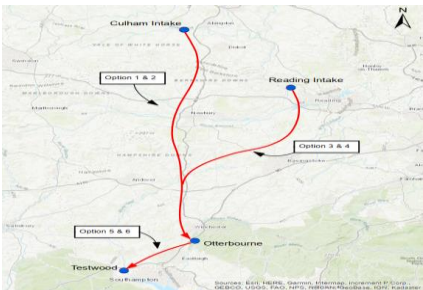
**South East Strategic Reservoir**



**London Reuse**



**Thames – Affinity Transfer**

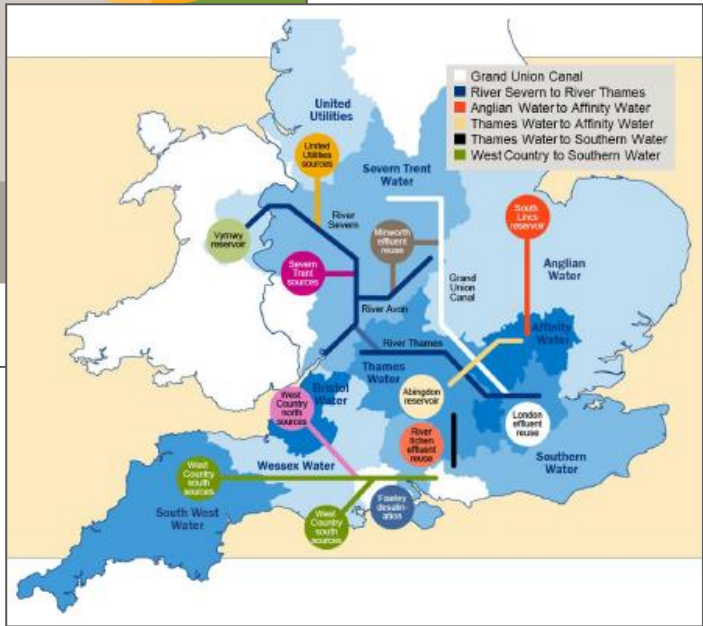


**Thames – Southern Transfer**

December 2019

## PR19 final determinations

Strategic regional water resource solutions appendix





# Our WRMP19

- A robust and resilient plan for the long-term, providing protection against 1 in 200 year severe drought events from 2030, with the use of drought permits prior to this.
- Takes a regional perspective and was developed in collaboration with water undertakers across the South East and beyond.
- Aligns with customers' views and responds to feedback from stakeholders as far as possible.



# Our WRMP19

- Takes a twin track approach - ambitious leakage management and demand reduction programme are the foundation, combined with resource development.
- Adaptive planning approach with alternative options and responsive to future uncertainty:
  - Ox-Cam growth.
  - 1 in 500 year extreme drought resilience.
  - Further environmental protection.
  - Risk around achieving reductions in demand.
  - Infrastructure built in a timely way.
- Provides wider resilience – addressing risks of ageing infrastructure.

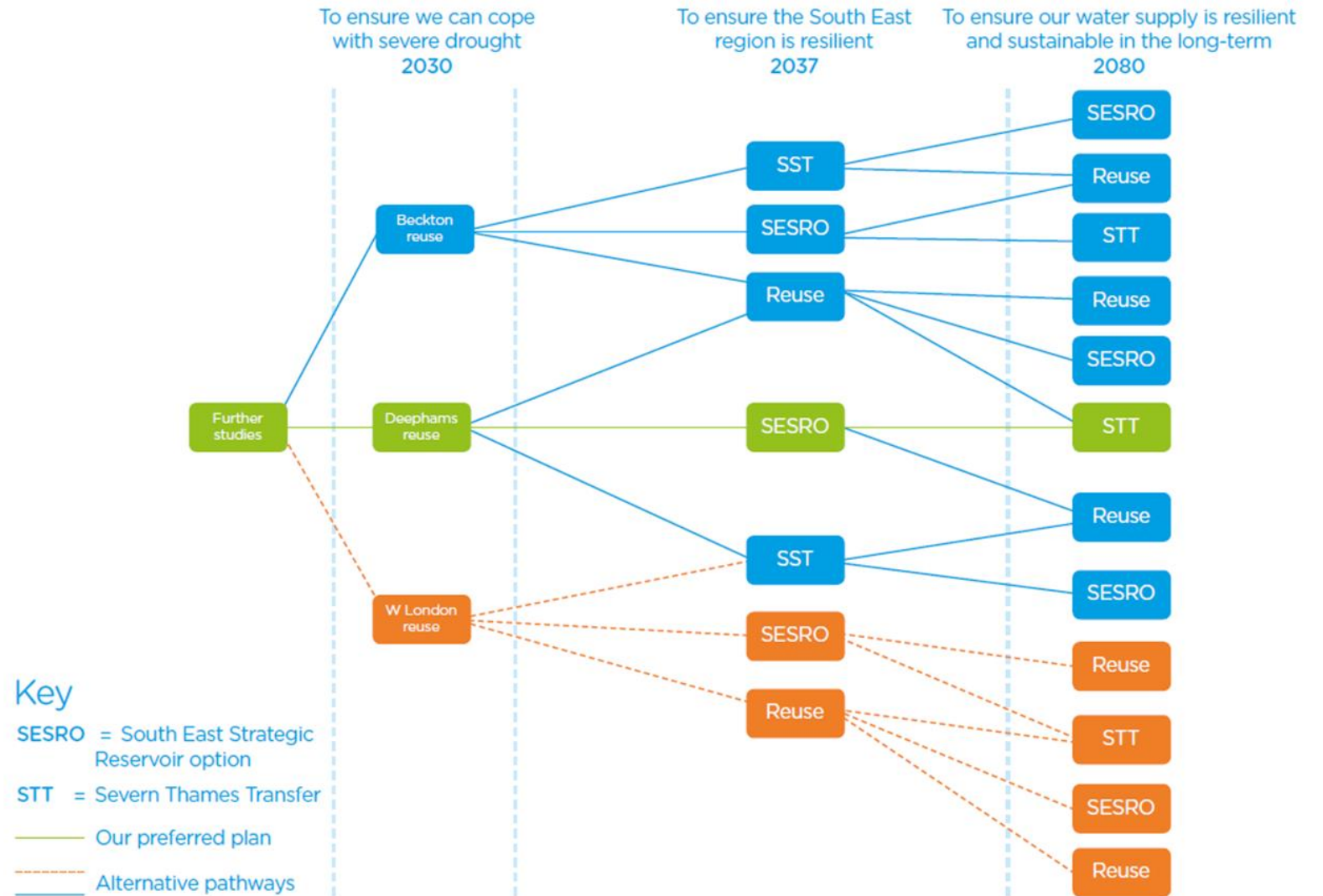


# Planning future water resources: adaptive planning

## TW WRMP19

### To 2030:

- Ongoing programme of leakage reduction, roll out of smart meters and water efficiency
- Buying water from other organisations – RWE Didcot and Oxford Canal transfer
- New groundwater sources
- Deephams wastewater reuse



# The reservoir – what our customers and stakeholders think



Support from stakeholders focused on:

- increased resilience to drought;
- opportunity to increase flood resilience;
- help to protect rivers, including chalk streams; and
- opportunities for the environment, conservation, biodiversity, access and recreation.

Concerns often from individuals and organisations with a local interest:

- environmental impact & loss of agricultural land
- landscape and visual impact
- lengthy construction period with associated nuisance and disruption to the local community;
- archaeological and heritage.



# The timescales to decide on future investment

2019 to 2021

Working collaboratively through Water Resources South East to develop a regional plan for the South East. This includes exploring a wide range of potential options.

Early 2022

Consultation (non-statutory) on the draft regional plan

Autumn 2022

Consultation (statutory) on draft WRMP24

Collaborative work to examine Strategic Resource Options

## Key dates:

February 2021 – Updated regional resource position – sets out the regional planning challenge

January 2022 - Draft South East regional plan for consultation

September 2022 – Draft WRMP24 for consultation

Spring 2023 – Final WRMP24 submission to Secretary of State (SoS)

July 2023 – Commence pre-application work for planning approval

Autumn 2024 – Public Hearing/Inquiry into WRMP24

March 2025 – Secretary of State approval of WRMP24 (SRO need case)

March 2025 – Statutory consultation on SESRO DCO

April 2026 – Application for SESRO DCO



Thank you

