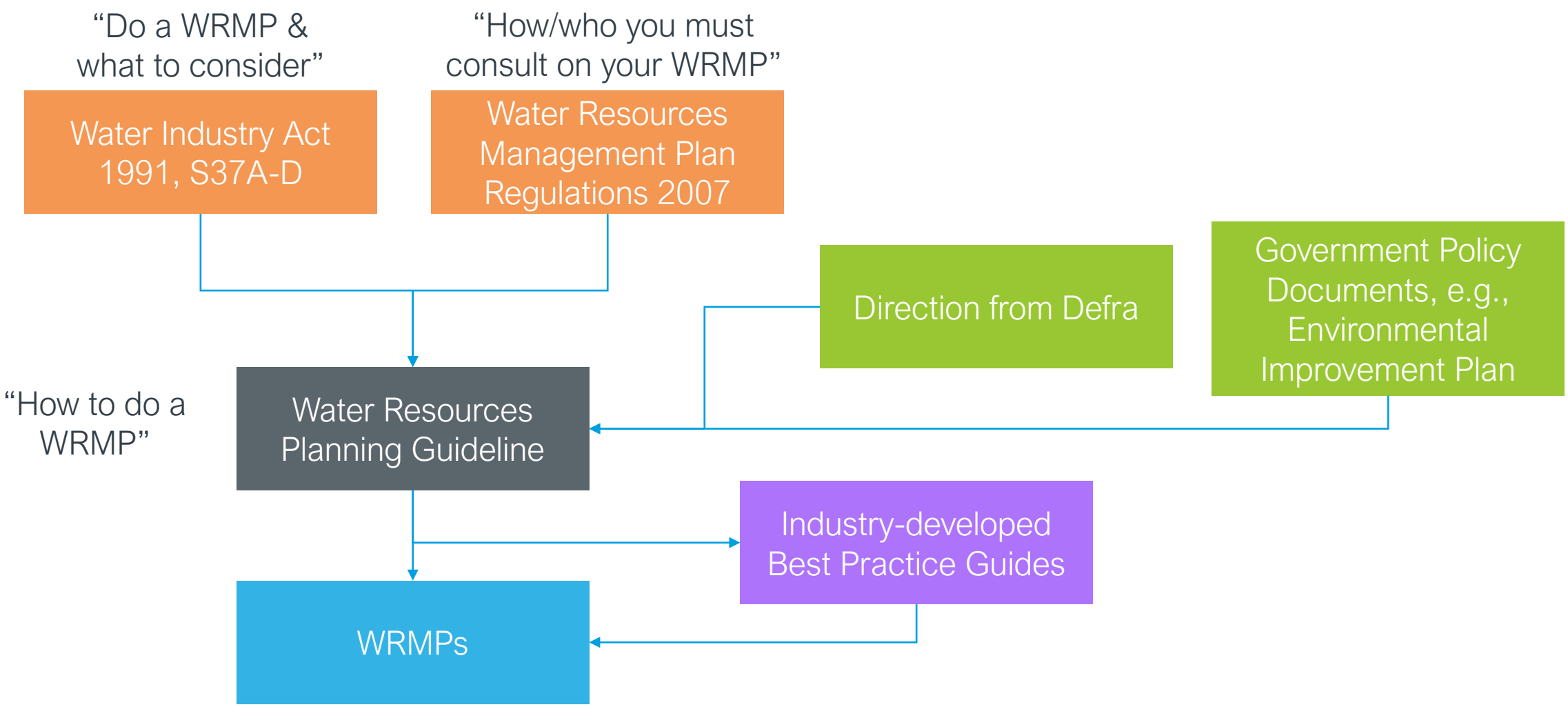

Thames
Water

What is a Water Resources Management Plan?

Context

Key guidance and legislation



Ensuring a resilient water supply

Spatial Scale and Supply-demand balance

Spatial Scale

- Water company supply areas are split into Water Resource Zones (WRZs)
- Thames Water – 6 WRZs
- Customers within a WRZ must experience the same risk from drought, either via interconnected network or via there being sources of the same type of source

Temporal Scale

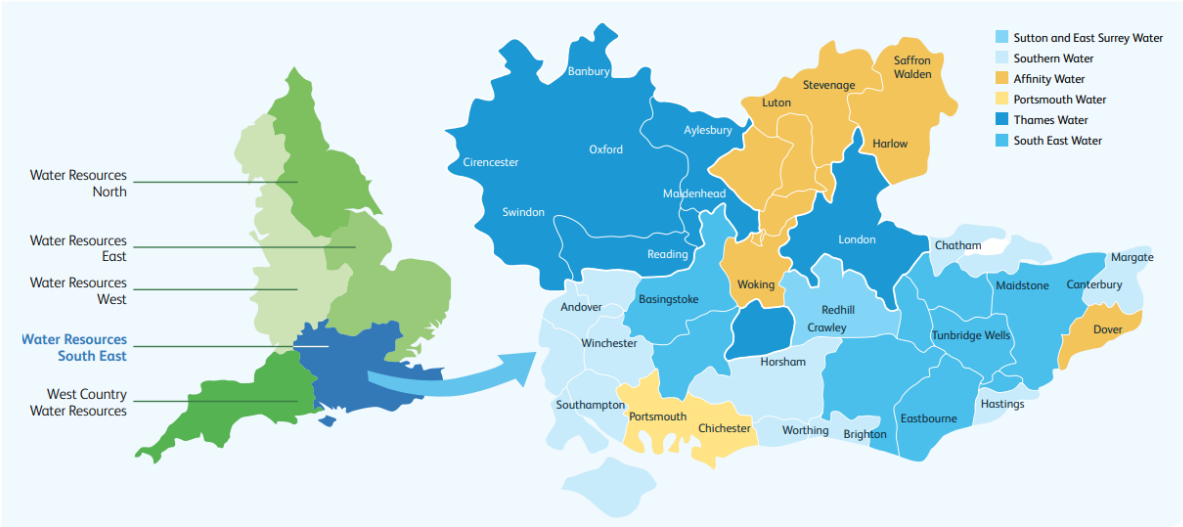
- 25 year minimum planning period
- TW/WRSE Planning Period – 50 years
- Annual Forecast of supply and demand

Resource Zones (WRZs)

Ensuring a resilient water supply

Spatial Scale – Regional Planning

- National Framework for Water Resources
  - Recognition that additional capacity in the water resources system is needed across the country



- Shared solutions could be more efficient and robust for all
- Regional plans lead to a more coherent national plan

UK Water Resources Planning

Supply-Demand Balance

Supply

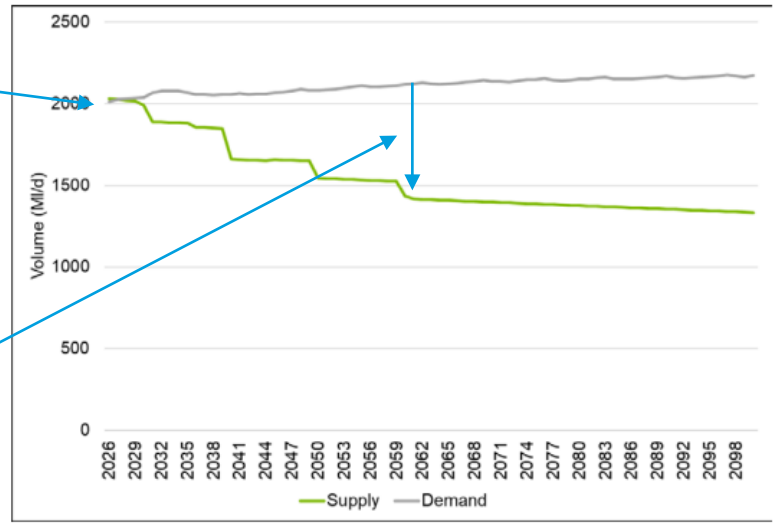
Uncertainty

Water Available for Use >= Demand + Target Headroom

(For each year of the planning period – for WRMP24 this is at least 2025-2050)

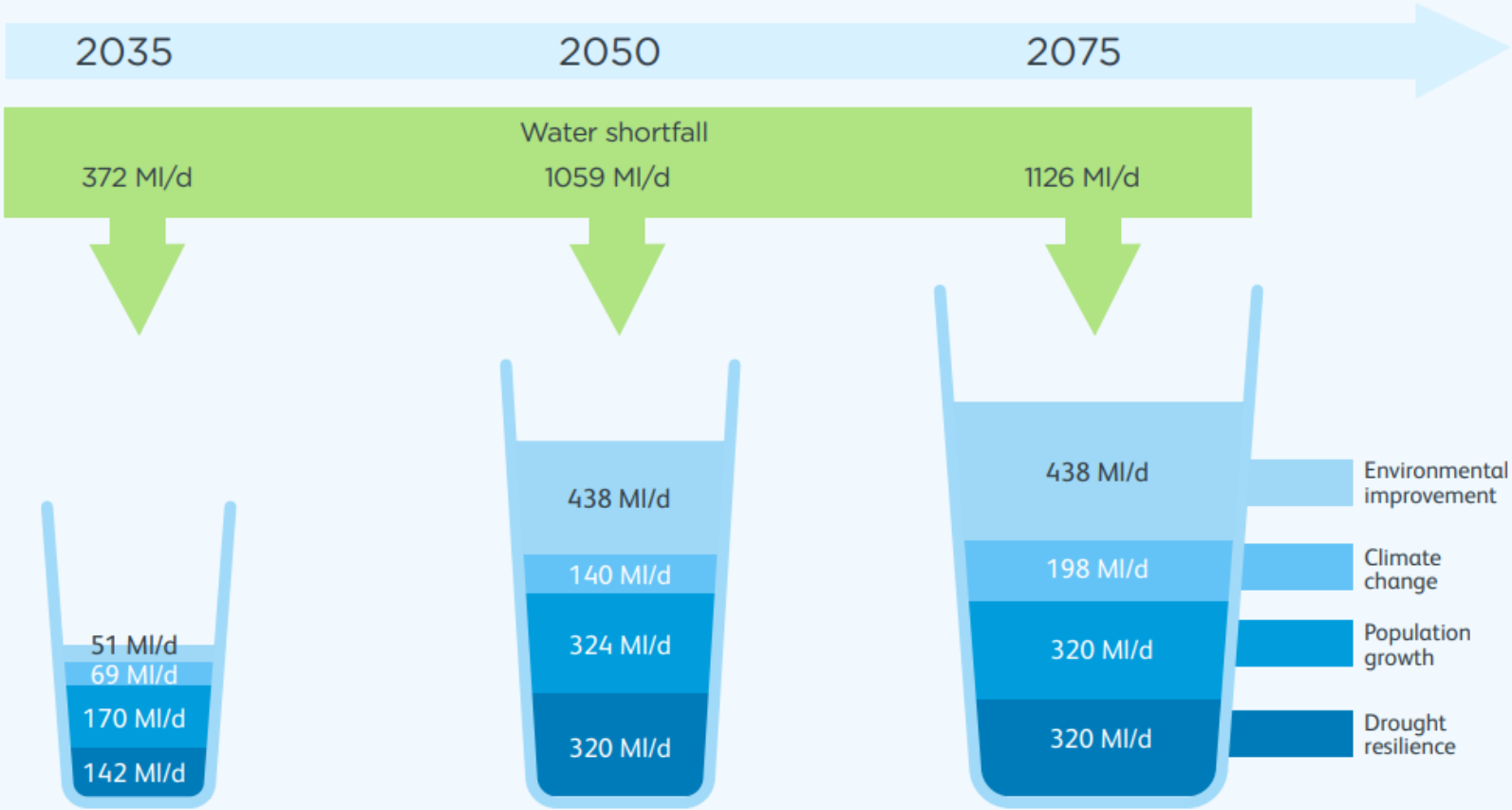
Surplus

Deficit



The planning challenge

How big is it?



The planning challenge takes account of other factors in addition to the four main challenges. This is why the overall water shortfall is not the same as the sum of the four challenges shown in the diagram.

Current water supply:

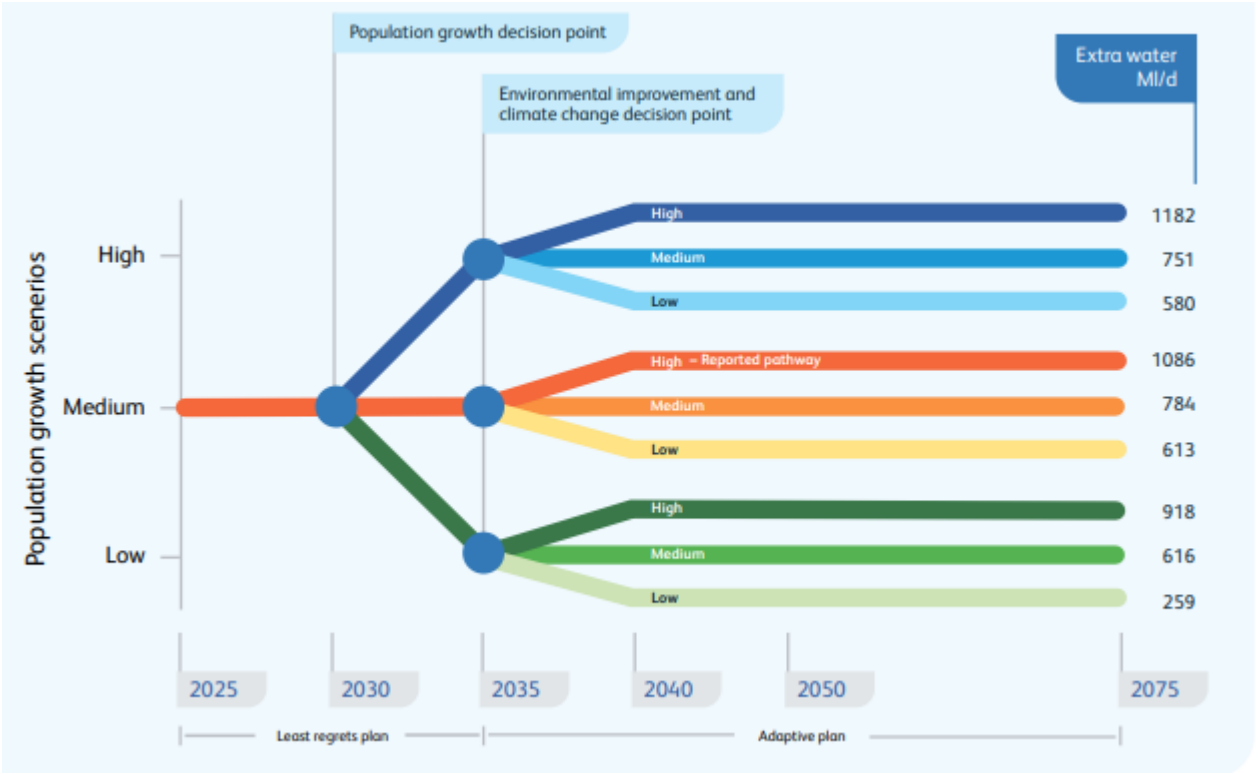
2,000 Ml/d = London's water supply

2,600 Ml/d = Thames Water total supply

Adaptive Planning

Recognising and planning for uncertainty

- Recognising that the future is uncertain, we incorporate a branched approach to our programme appraisal
- We look at different scenarios of population growth, climate change impact and “Environmental Destination” licence reductions to ensure we have a ‘least regrets’ plan

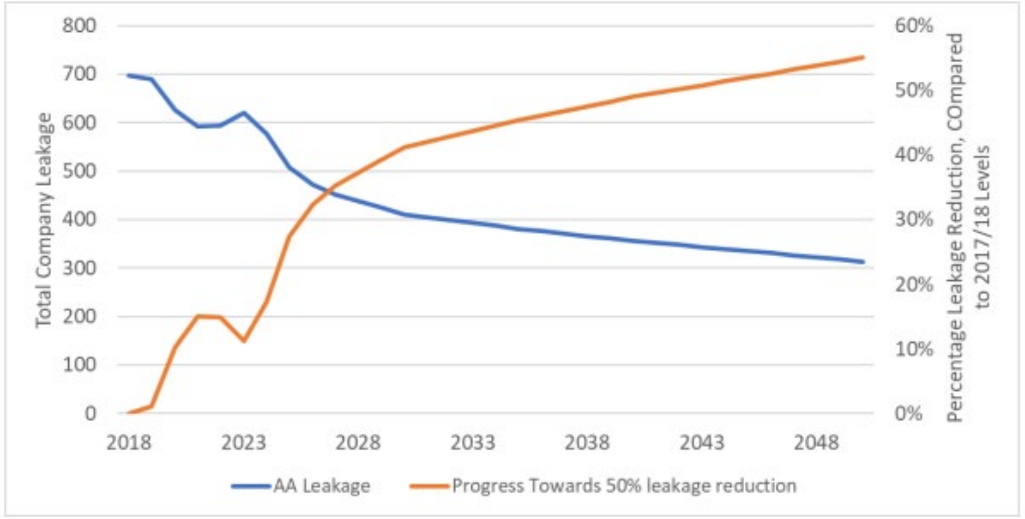


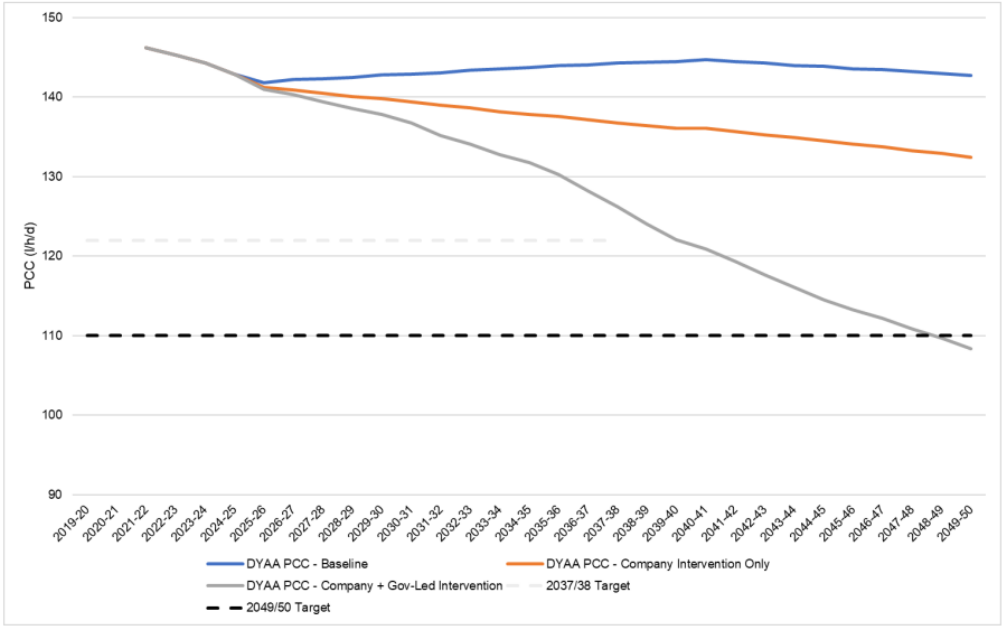
What is in Thames Water's WRMP, and why?

Demand-side Actions

80% of our deficit will be solved by demand-side solutions

- An ambitious demand programme
  - 50% leakage reduction
  - PCC - 110 l/h/d by 2050
- Smart metering – key enabler
- Leakage
  - 40% reduction by 2030
  - 2030-2050 – major mains rehabilitation programme, costing £4-6bn, delivering c.80 Ml/d
- Consumption
  - 110 l/h/d target by 2050
  - Significant govt. intervention required

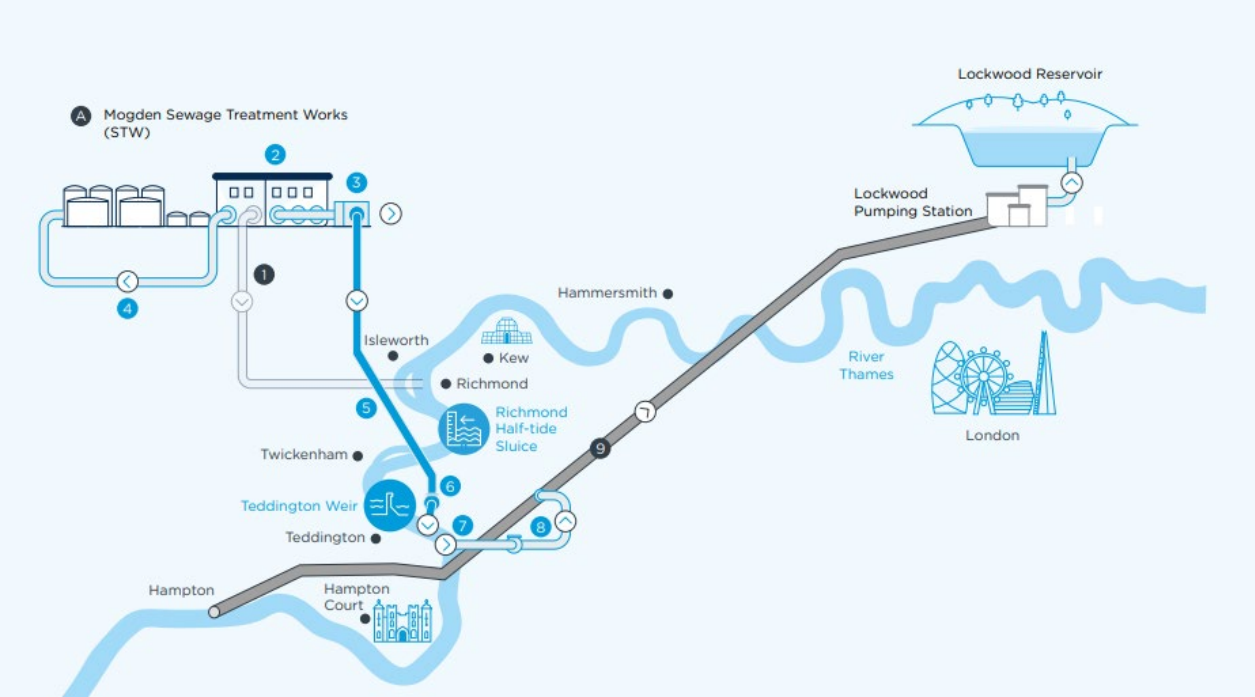




New sources of supply

Teddington DRA

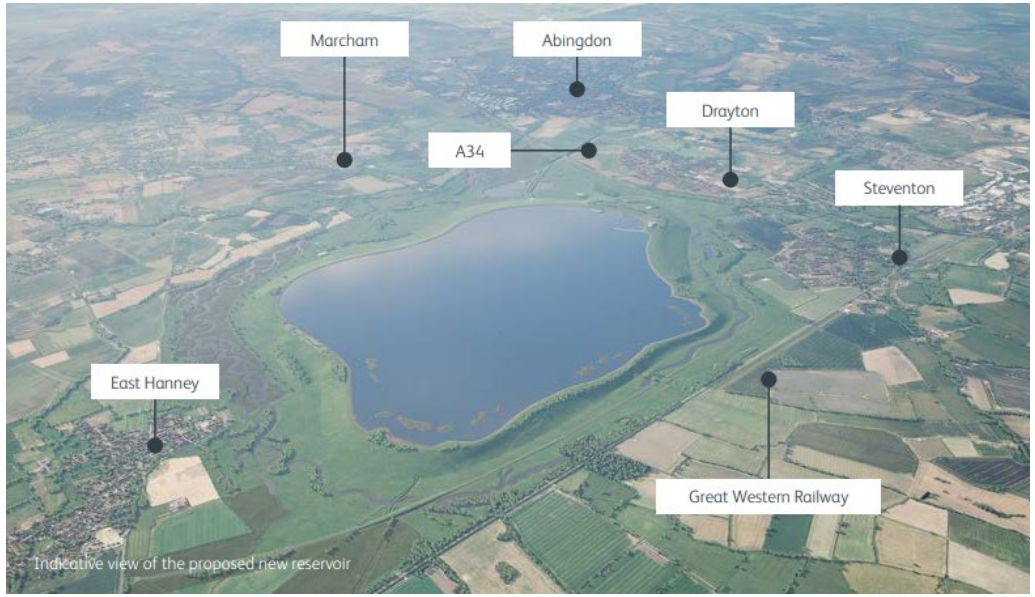
- A new, large source of water is still needed by the early 2030s in order to provide 1 in 200-year resilience to London
- The Teddington Direct River Abstraction scheme allows for increased abstraction, with increased abstraction offset by discharges of highly treated wastewater
- Teddington DRA is the most cost-effective large solution that we can develop on a relatively short timescale, and results in lower carbon emissions than alternatives



New sources of supply

South East Strategic Reservoir Option – 150 Mm^3

- Across the WRSE Region, there is a large need for new water resources in the longer term
- We have investigated the different options which could be used to ensure supplies across the region



- A new reservoir, known as SESRO, has been selected as it is cost-effective and low in carbon emissions compared to alternatives
- The new reservoir would supply water to local customers, as well as homes and businesses across London and the South East.

Opportunities

As well as providing the vital water resources we need, the new reservoir could bring environmental benefits, support the local economy, and provide value to local communities. We're at an early design stage and we'll work with stakeholders and local communities as we develop the design.

1. New wetland habitats. A quiet area with boardwalks and bird hides
2. Main access to the site with areas of wetland and grassland, and a network of footpaths.
3. Main hub for recreation and leisure facilities. Operational buildings will also be located here
4. Tree planting and grasslands to integrate with the landscape, with natural leisure and play areas.
5. A new road with a foot and cycleway. A new rail siding, during construction. Landscaping using grassland and woodland habitats..
6. Land and managed water-based recreation
7. Underground tunnel to transfer water between the river and the reservoir.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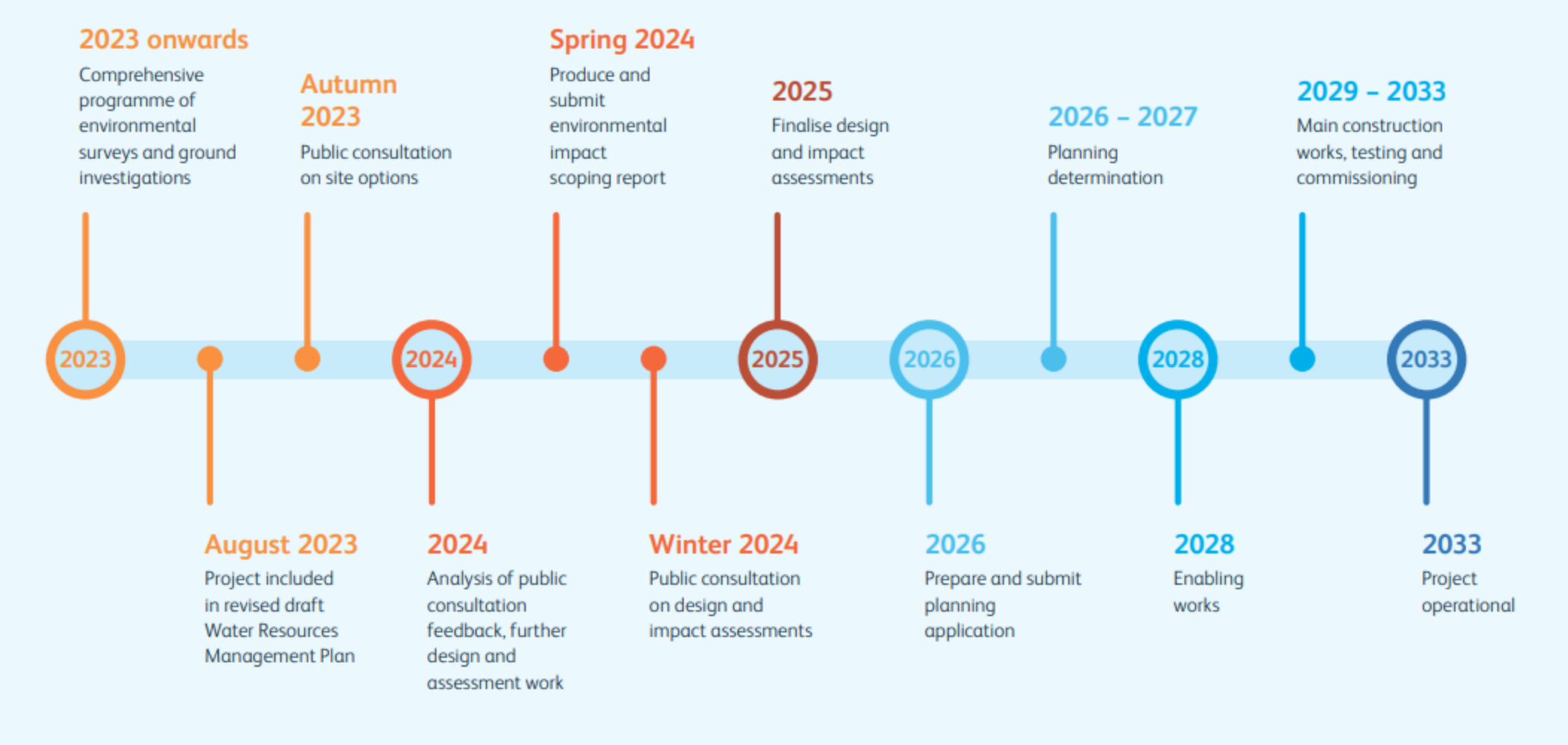
Timeline – Teddington DRA



Timeline - SESRO