

WRE

WATER RESOURCES EAST

National Framework for Water Resources 2 and agriculture

Water Resources East

One of 5 regional water resources planning groups.

WRE became an independent, not-for-profit, membership organisation in 2019.

In March 2020 the Water Resources National Framework (Environment Agency) tasked WRE to develop a regional, multi-sector water resources plan for Eastern England to 2050.

The multi-sector nature of our work reflects the strategic importance of water to the regional economy including agriculture and the natural environment.

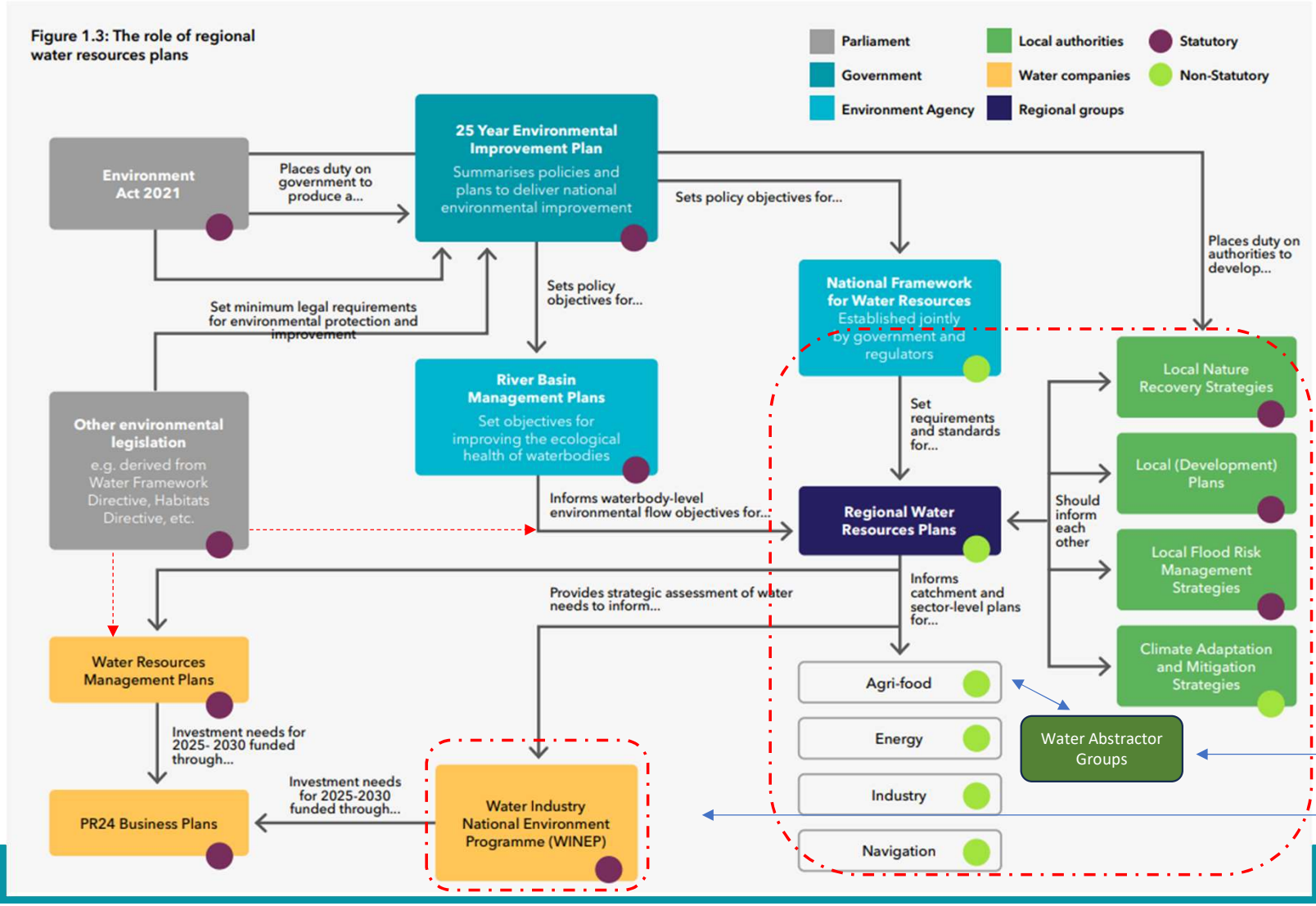
We published the first plan in December 2023. Government have confirmed there will be a second round of planning. The National Framework is to be updated in early 2025.



WRE's Regional Water Resources Plan in context

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Figure 1.3: The role of regional water resources plans



Catchment-scale environmental evidence and ambitions

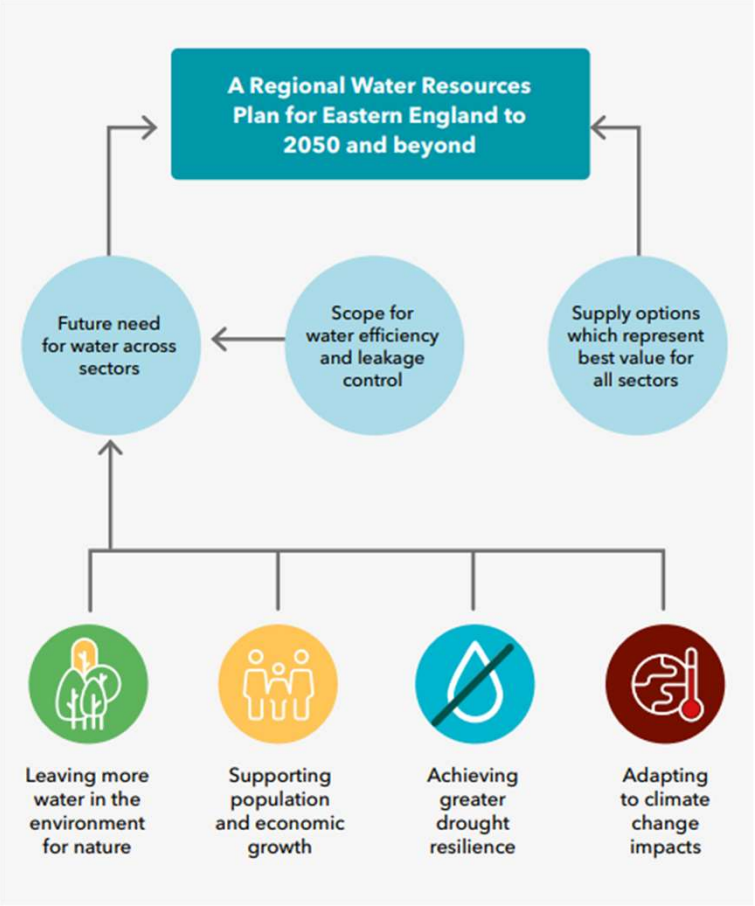
Local scale water needs evidence and local resource options

How we develop our plan

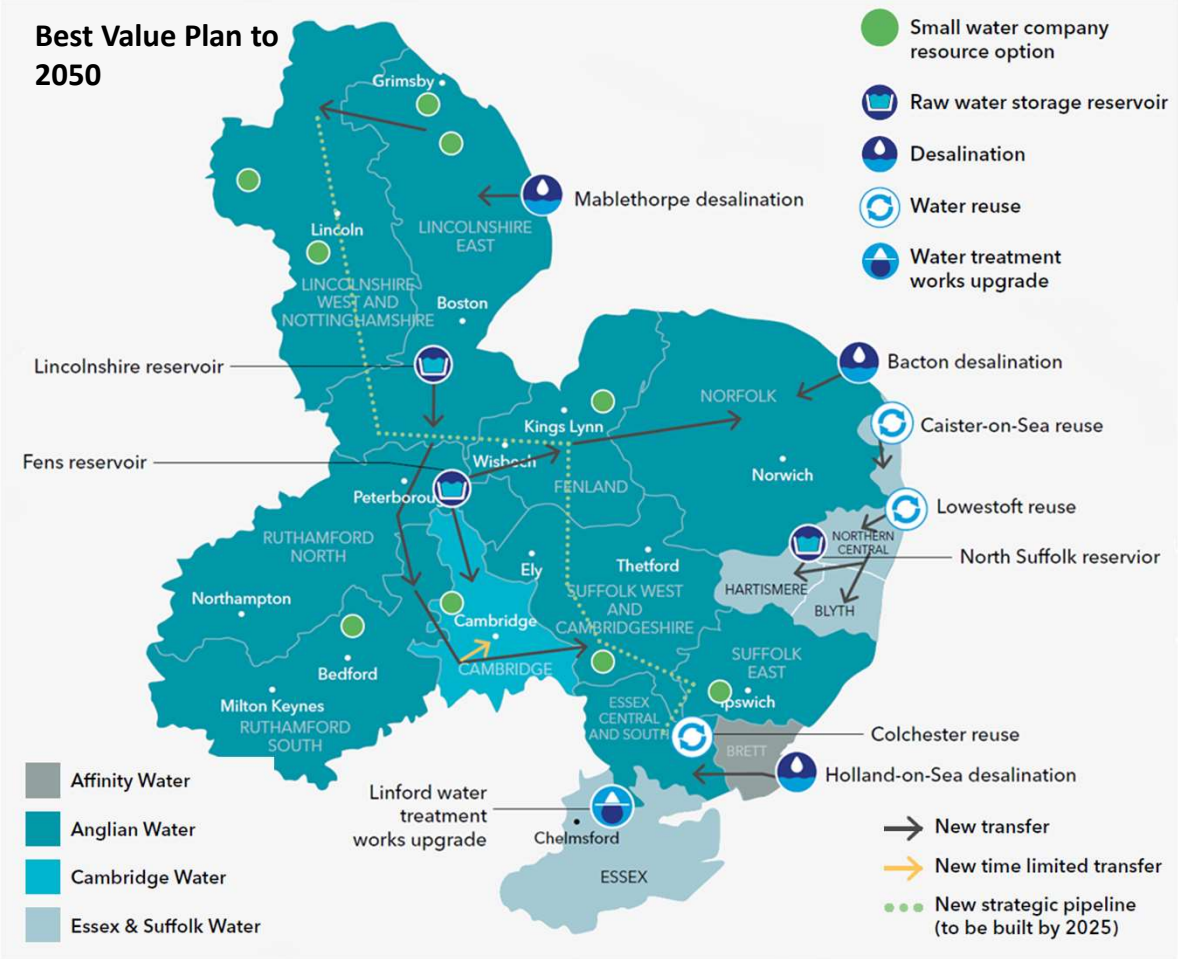
WATER RESOURCES EAST

- WRE regional simulator to support multi-objective decision-making.
- Aggregated multi-sector water demands at a catchment scale.
- Simulator outputs track risks to public water supply, agriculture, energy and the environment.

Supply forecasts	Demand forecasts	Options identification and screening
Scenario development	Environmental assessments	Cost-benefit assessment
Local environmental targets	Climate change assessment	Policy review



WRE's Regional Water Resources Plan



Water efficiency
Soil moisture deficit sensing
Water efficient crops and varieties
Indoor and vertical farming

Water capture & reuse
Rainwater harvesting
Treated effluent reuse
Recycling within IDB-managed systems

Water storage
Winter storage reservoirs
Managed aquifer recharge (MAR)
Linear reservoirs using drainage networks

Water sharing and trading

Environmental improvements
Nature Based Solutions

Second round of regional planning

MUST

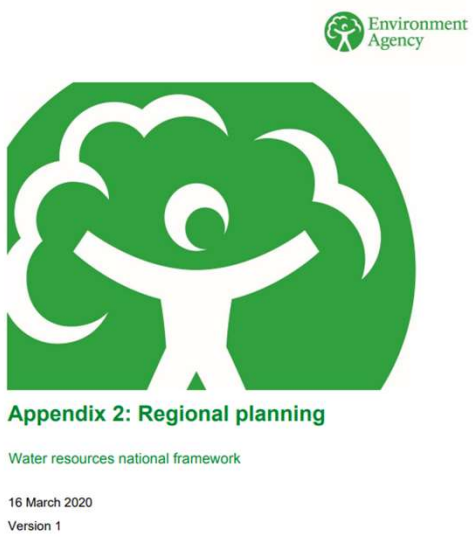
- Take account of the national framework and set out its potential contribution to the national need
- Be reflected in WRMPs
- ★ Forecast supply and demand over at least 25 years and set out solutions to any deficits
- Be a single strategic plan with a preferred adaptive solution
- ★ Take a multi sector approach
- Look beyond regional boundaries and use technical approaches compatible with other regions
- ★ Include enhanced environmental improvements and demand management
- ★ Take a catchment based approach
- ★ Consider wider resilience benefits, including reducing flood risk when developing options
- Be open to market mechanisms
- Take into account growth ambition
- Comply with SEA and HRA legislation

SHOULD

- Engage widely with interested groups
- Set out how the region will respond to drought and agree common scenarios for drought actions
- Join up with drainage and wastewater management plans
- Seek to improve resilience to events other than drought, particularly floods
- Look ahead 50 years or more

COULD

- Contain all the detailed information required for WRMPs
- Contain all the detailed information required for drought plans



Source: Environment Agency (2020), *Meeting our future water needs: a national framework for water resources, Appendix 2: Regional Planning*

The Must, Should, Could

- *Initial feedback provided on an early draft (5th April)*
- Expectations likely to remain:
  - Regional plans to be reflected in WRMPs
  - A preference for a single preferred plan over 25 years, but with adaptive pathways
  - Take a "multi-sector approach"
- Key changes:
  - Stronger reference to non PWS sectors on specific requirements such as forecasting supply and demand
  - Reflection of different timelines in multi-sector planning and how this impacts adaptive planning
  - Show strong leadership in more holistic, integrated approach to WR management
  - Take account of immediate pressures facing water users and support solutions identification
- Under review:
  - Environmental improvements/enhancements
  - Taking account of "growth"
  - A role in enabling/facilitating local delivery – beyond planning

National Framework workstreams

Workstream	Deliverable	2023 Jan	2023 Apr	2023 Jul	2023 Oct	2024 Jan	2024 Apr	2024 Jul	2024 Oct	2025 Jan	2025 Apr	2025 Jul	2025 Oct
Overall Framework	Drafting of National Framework for Water Resources												
	Publication of National Framework for Water Resources												
	Publication of technical appendices												
WR Narrative	Document to enable consistent messaging about water resources pressures and that action is needed												
Agriculture	Develop and test a methodology for supply/ demand balance studies for agriculture												
	Supply/ demand balance studies undertaken (tendering and completion)												
	Develop and test a methodology for Local Resource Option screening studies for agriculture												
	Local Resource Option screening studies for agriculture – applications; tendering and studies												
	Work with Water for Food Group to develop a toolkit to promote Water Abstractor Groups												
Energy	Reports on water resource requirements of energy and clean water												
Environmental needs	Update to environmental destination using latest climate change scenario data. Consultation.												
Multi-sector water resources planning	Review opportunities to improve water resources planning for sectors other than pws, energy and agri.												
WR Modelling	Test existing and emerging supply options to resolve national deficit												
Public Water Supply	Scoping of WRMP29 Guidance development												
	Water Resource Planning Guideline development												
	Draft Water Resource Planning Guideline published for consultation												
	Final Water Resources Planning Guideline published												
Regional planning	Report on governance arrangements and recommendations for multi-sector planning												
	Report on funding needs and recommendations to support multi-sector planning and implement options												

Source: Environment Agency (April 2024)

Funding for multi-sector work

Opportunistic Funding for WR Planning (24/25)

Short Term Funding for WR Planning

Sustainable Funding for WR Planning

24/25 Defra Water Resources Planning Studies for Agriculture

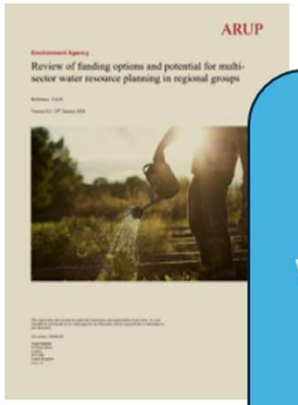
(LROs, supply/ demand balances and WAG establishment)

24/25 DLUHC Water Resources Planning Studies for Agriculture

Defra budgets?

2024 Spending Review (EA GiA)?

Re-purposing some of the EIUC budget?



Government funding?

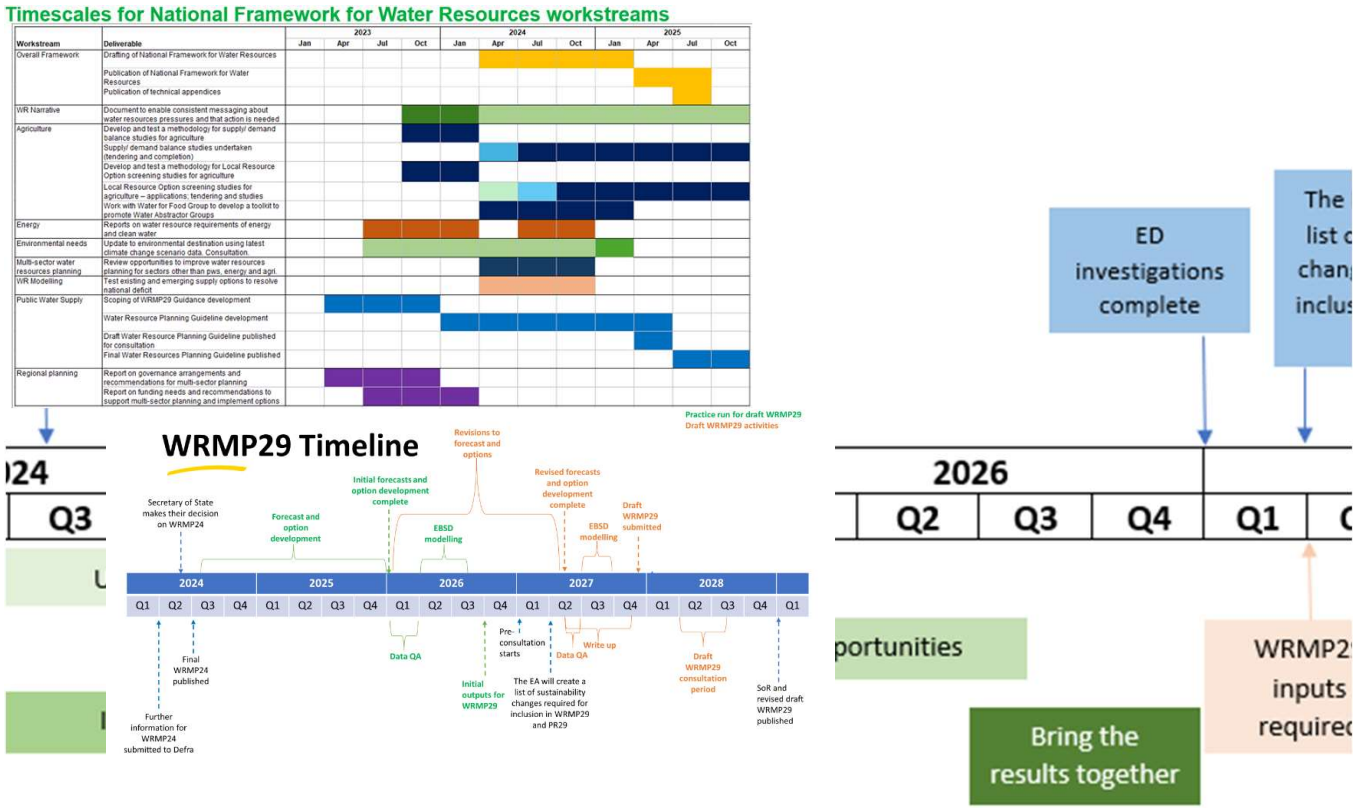
Water company subsidies?

EA Abstraction charges?

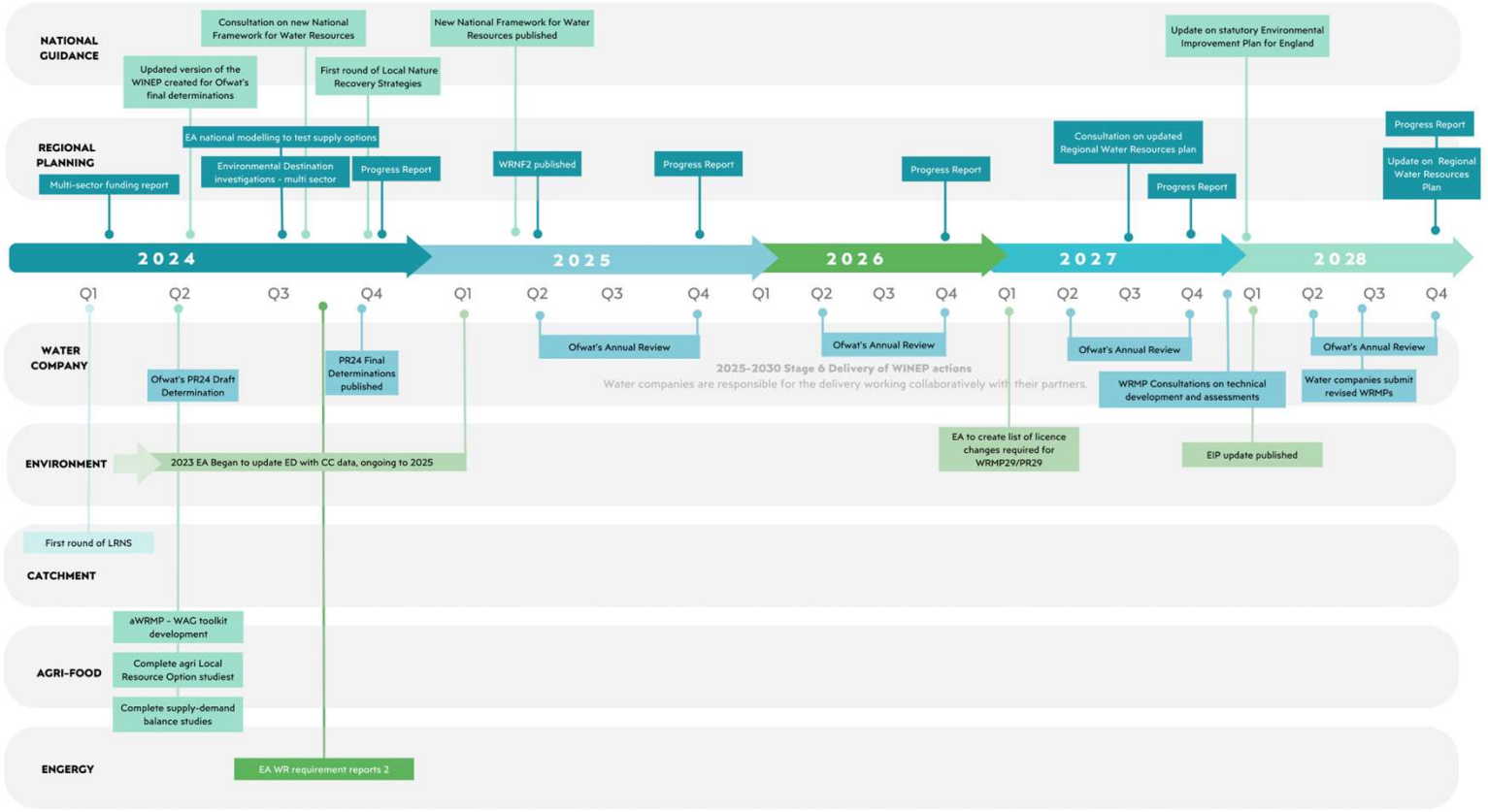
Source: Environment Agency (April 2024)

An integrated technical programme

- Short term detail for this year for key technical developments, early start projects, guidance developments etc - to inform how WRE can develop a new method statement for summer 2025 and get any other priority projects up and running this year.
- Longer term milestones (likely with less detail) between now and the publication of the next regional plan.



An integrated technical programme



Integrated technical programme under development – shown here to illustrate

Agricultural water resources planning

WRE is supporting the Environment Agency's work to advance water resources planning and option development for agriculture.

Farm to Fork Summit (May 2023) included commitments to:

Create Water Resource Management Plans for agriculture (aWRMPs), that will help farmers plan their water resources and ensure better resilience to drought.

↓

Catchment scale water supply-demand balances for agriculture (Method and Pilot)

Support farmer-led groups to identify local water resource schemes, building on the success of projects like Felixstowe Hydrocycle. These have since been referred to as Local Resource Options (LROs).

↓

Local Resource Options for agricultural water resources (Methodology development)

Agricultural water resources planning

Catchment scale water supply-demand balances for agriculture (Method and Pilot)

- A scaleable and repeatable method for undertaking catchment-scale supply/demand balances for agriculture in England. The approach will help identify the unmet water demand which will need to be considered by Regional Groups when producing Regional Water Resources Plans.

- Pilot for the approach in the Cam and Ely Ouse catchment.

- Explores current and future demand in the context of climate change and a need to reduce some abstractions to protect and restore the environment.

This work forms an important foundation for understanding the scale of the water resources challenge for agriculture in a way that more closely aligns to water company and regional analyses.

Agricultural water resources planning

Local Resource Options

"A Local Resource Option (LRO) is a water resource solution that improves resilience or supply of water for a small group of farmers working together and involves identifying and developing local water resources that mostly fall outside the main strategic river and groundwater water resources.
A particular feature of LROs is that they should benefit a group of farmers who plan to work together to manage and share the resource but recognising that others may benefit, such as PWS, the environment, and amenity.
Examples of LROs include:

- *building new farm storage reservoirs or increasing the size of existing reservoirs,*
- *rainwater harvesting,*
- *improving existing water supply assets,*
- *exploiting land drainage water which would otherwise go to waste,*
- *conjunctive use of groundwater and surface water resources,*
- *options to trade and share water to better use existing supplies.*

A frequently used example is the Felixstowe Hydrocycle scheme which takes land drainage water that would be pumped over the seawall and transfers it up-catchment to on-farm reservoirs. Another example is the Lincoln Water Transfer group who share a single licence irrigating 4,600 ha across 19 members"

Agricultural water resources planning

Local Resource Options for agricultural water resources (Methodology development)

- A repeatable method for undertaking option screening and a definition for potential Local Resource Options to increase drought resilience for agricultural abstractors / water users.

- It will incentivise the establishment of Water Abstractor Groups for agriculture

- The method prompts abstractor groups to explore a range of options and strategies and then assess their relative benefits so that efforts are focused appropriately.

We hope that method this will bring local supply options forward at a greater pace and with a greater level of maturity so that they can form part of the multi-sector regional plan.

Defra has announced a fund accessible to groups of farmers (2-10) who would like to investigate improving their water resource resilience using LROs.
"This is the best offer I have seen on the table in my 25 years with the UKIA" Melvyn Kay (UKIA)