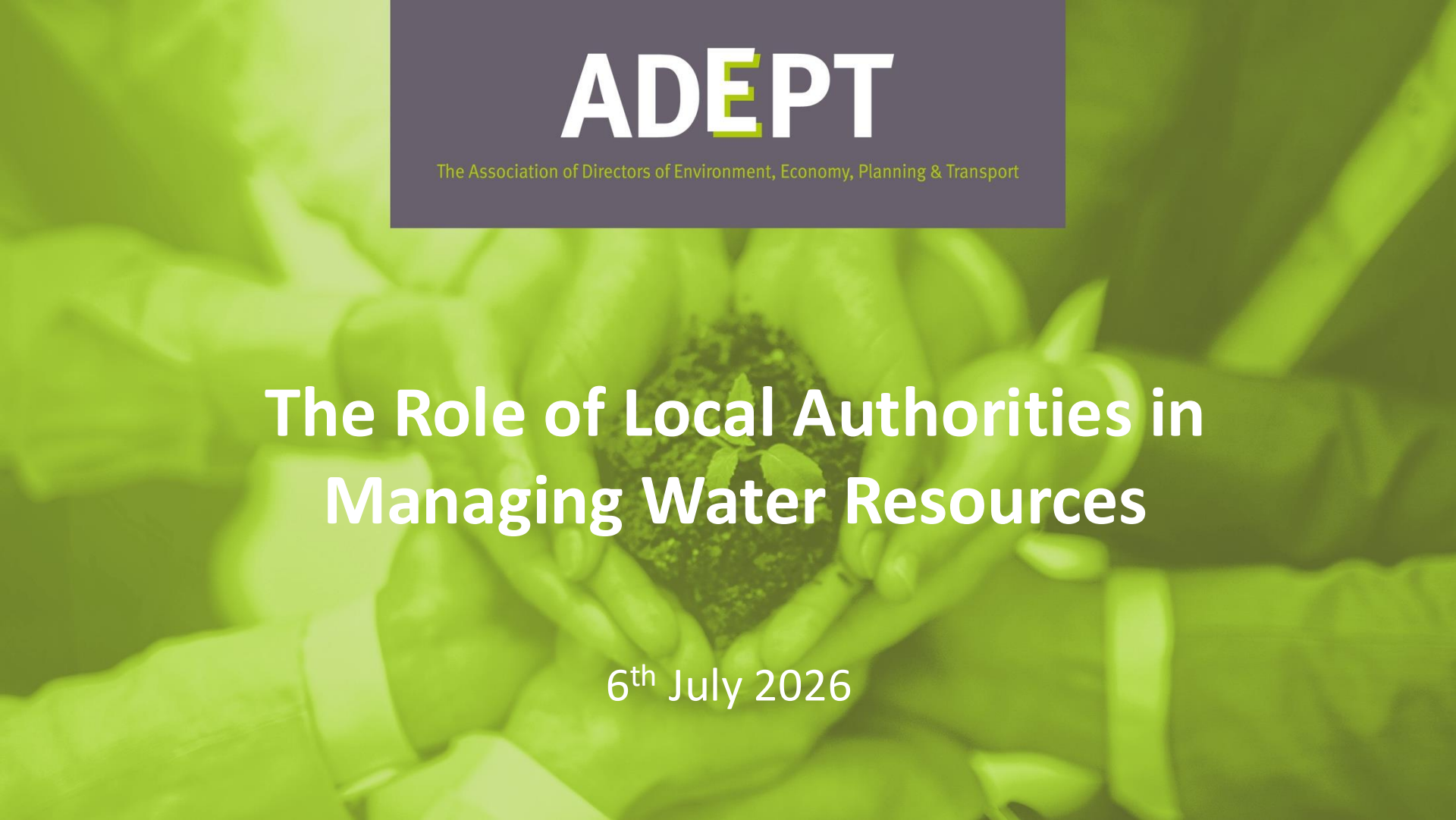




ADEPT

The Association of Directors of Environment, Economy, Planning & Transport

The Role of Local Authorities in Managing Water Resources

6th July 2026



Welcome and strategic context

Carolyn McKenzie

Chair of ADEPT Environment Board

Director of Environment & Planning, Surrey County Council

Agenda

ADEPT

14:00-14:10	Welcome and strategic context	Carolyn McKenzie, Chair ADEPT Environment Board
14:10-14:30	National policy expectations: water, planning and infrastructure	Emma Donnelly, Clean Waters Deputy Director, Defra Harry Leeder, MHCLG
14:30-14:40	Why it matters: pressure on water resources	Meyrick Gough, Water Resources South East
14:40-15:00	Case study: from policy to place	Daniel Johns, Water Resources East Wendy Brooks, Norfolk County Council
15:00-15:30	Panel discussion and audience Q&A	All speakers plus John Curtin (President, CIWEM)
15:30	Close	



Department
for Environment,
Food & Rural Affairs

Regional planning

ADEPT workshop, 6 July 2026

Emma Donnelly, Clean Waters Deputy Director

Drivers for regional reform

Implement an enhanced, better joined-up regional water planning function.

Work with local partnerships to prepare for new elements of the regional water planning function in 2026.

Set up a Regional Water Planning Steering Group to co-design the new framework.



Defra's Vision for Regional Planning

- Once-in-a-generation opportunity to reform England's water system
- Reforms to regional water planning will:
 - Address the “missing middle”
 - Bring together system-wide view of challenges and opportunities
 - Support coherent, cross-sector planning
 - Identify lower cost, higher impact solutions, including nature-based solutions
 - Streamline bureaucracy and deliver better value for money

Regional water planning will increasingly empower local decision-making, shaping delivery to better meet the needs and priorities of your areas.

Models under consideration

Regulator model

Regional teams within the new regulator produce regional plans

Strong consultation duty placed on regulator

Regional Advisory Groups

Set up cross-sector regional groups in each river basin district England

Statutory duty on SoS/regulator to produce/approve regional plans

Duty to consult with regional groups to produce these regional plans

Statutory regional water planning authorities

Establish statutory regional planning authorities in each region with a formal duty to produce regional strategies

May absorb statutory and planning responsibilities from other parts of the system

There is an important role under all models for local authorities to help ensure that water system decisions respond to your needs.

Regional Planning Cycle

Align with Strategic Guidance

Informed by relevant data

Feeds into key plans and funding decisions including Price Reviews

Statutory targets (e.g. EIP/WFD) and national priorities



Catchment plans



EA area team data



Sector data



Local Nature Recovery Strategies



Spatial Development Strategies



Transport sector



Energy sector

Data sharing duty: EA/new regulator have a duty to provide data/info to regional partnerships



Defra publishes National Strategic Guidance

Sets direction, key objectives and framework for trade-offs



National FCERM (floods) strategy

Informs planning for flood and coastal risk management



Regional Partnerships

Led by independent chair
Convene stakeholders
Shape regional priorities
Challenge and provide advice
Develop pipeline of investable projects



Consultation duty
Regulator must engage RPs when developing plans



Regional Water Plans

Produced by new regulator
Co-developed with RPs
Assured and published



Comply or explain duty
Regulator must comply or explain divergence from RP recommendations



Due regard duty

Public bodies and statutory undertakers must have due regard to RWP when making decisions



Regional Planning informs Price Review

Including water company business planning and investment decisions

Regional Partnerships also:

- Provide ongoing evidence, challenge and local insight
- Support design / bid for assessment specific grants
- Provide delivery assurance to track progress and improve outcomes



Targeted consultation duty
Influence key decisions through targeted consultation duties on wider public bodies and statutory undertakers (beyond the new regulator consultation) where RP input is needed most



Catchment plans
Influenced by RWP priorities and evidence



Flood plans and funding
Aligned with RWP priorities



Local Nature Recovery Strategies
Shaped by RWP priorities and opportunities



Spatial Development Strategies
Reflect water outcomes and priorities



Farming and nature schemes
Informed by RWP priorities



Transport sector
Informed by RWP priorities



Energy sector
Informed by RWP priorities

NOT GOVERNMENT POLICY - DO NOT DISSEMINATE

Piloting and early rollout

- We will legislate for the final approach in the new water Bill
- Ahead of that, we will pilot aspects of regional planning. This will both:
 - take advantage of opportunities to improve how things currently work and
 - inform the design of the final model.
- A series of workshops across England scoped the work:
 - Strong steer that LAs must be represented
 - Clear local authority role in identifying local priorities
 - Strong links to SDSs

Pilot partnerships are beginning to establish this summer, creating opportunities to test how local authorities can best help shape priorities and influence decisions across the regional water system.

Questions

- How could water system decision making best respond to local and strategic authority needs?
- What do you see the main challenges:
 - Where is the current system most duplicative?
 - Where is it most difficult to influence the existing system?
- Where can a regional layer add most value?
- Where are the biggest risks for local authorities?



Ministry of Housing,
Communities &
Local Government

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Water, Planning and Infrastructure

ADEPT Webinar, 6 July

Harry Leeder, Deputy Director - Water and Environment

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Why it matters: pressure on water resources

Meyrick Gough, WRSE Managing Director

6th July 2026

South East England's water resources



MAP KEY



National Parks

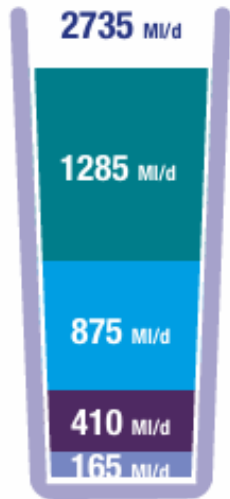


National Landscapes

- A unique environment with numerous designated sites and protected areas
- **32 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**.

The scale of the challenge

Regionally, by 2075 we face a **2.7 billion litre per day water shortfall** – this is more than half of the water currently supplied on an average day

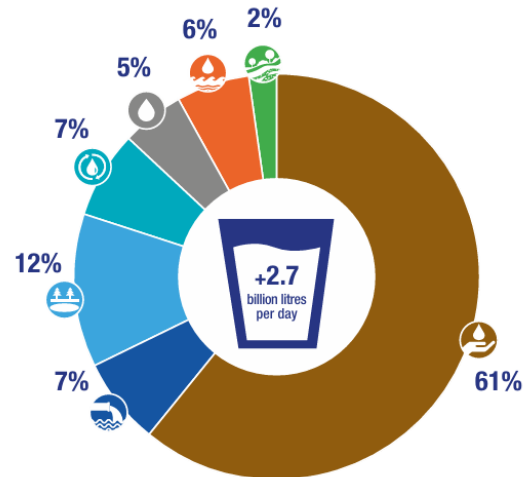


More water is needed to:

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

Data from the current regional plan (reported pathway)

Where the additional water will come from by 2075



-  Demand management - leakage and water efficiency
-  Reservoirs
-  Desalination
-  Transfers from other regions
-  Groundwater improvement schemes (including aquifer storage)
-  Water recycling
-  Other*

* Includes options such as license trading, enhancing existing infrastructure and increasing treatment works capacity

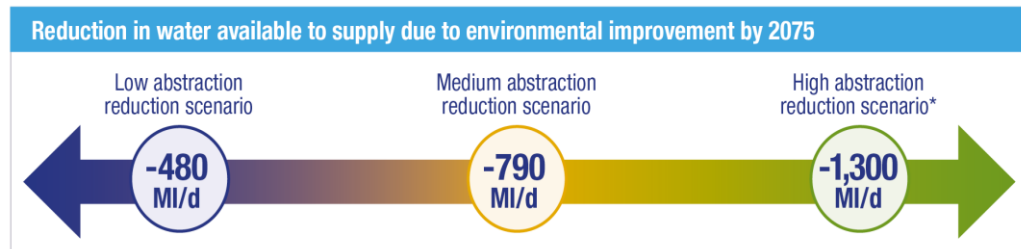
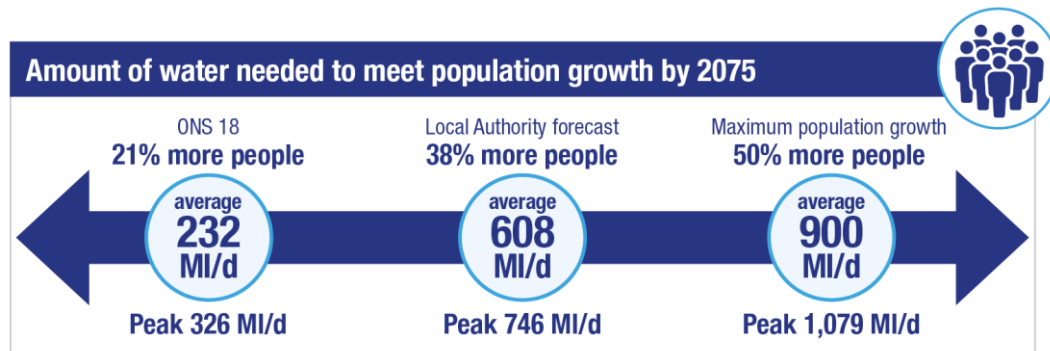
The importance of adaptive planning

- **External factors:**

- **Population growth** forecast ranges from 21% to 50% increase by 2075, with local plan data suggesting a 36% increase
- Results in future water demand increasing by **230MI/d to 930MI/d**
- **Climate change** forecasts project between 35MI/d to 170 MI/d less water will be available

- **Policy drivers:**

- **Increased resilience to extreme drought** (1 in 500-year resilience standard)
- **Environmental improvement** through a programme of abstraction reduction from existing sources
- Abstraction reduction scenarios range from **480MI/d to 1,300MI/d less water available**



Adaptive planning for a range of scenarios identifies core options needed in the majority of scenarios and adaptive options that could be progressed if needed.

Addressing the water shortfall - infrastructure

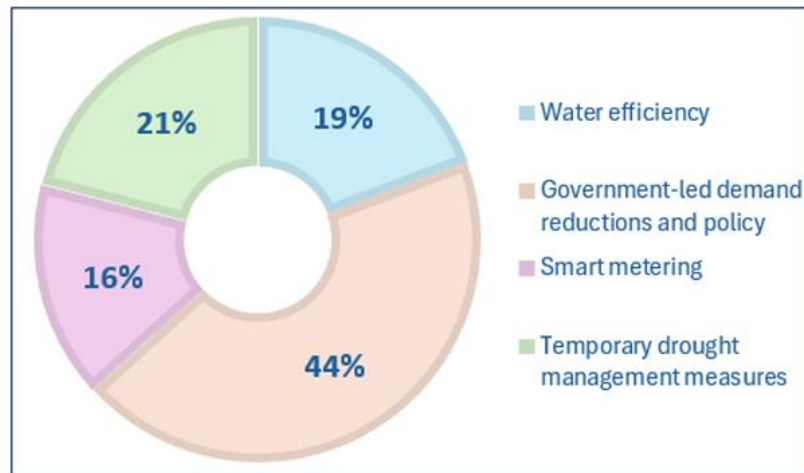
Map of schemes in our regional plan 2025 – 2075



* Further investigations on desalination and water recycling options to determine if more strategic solutions are available in Kent

The importance of reducing water consumption

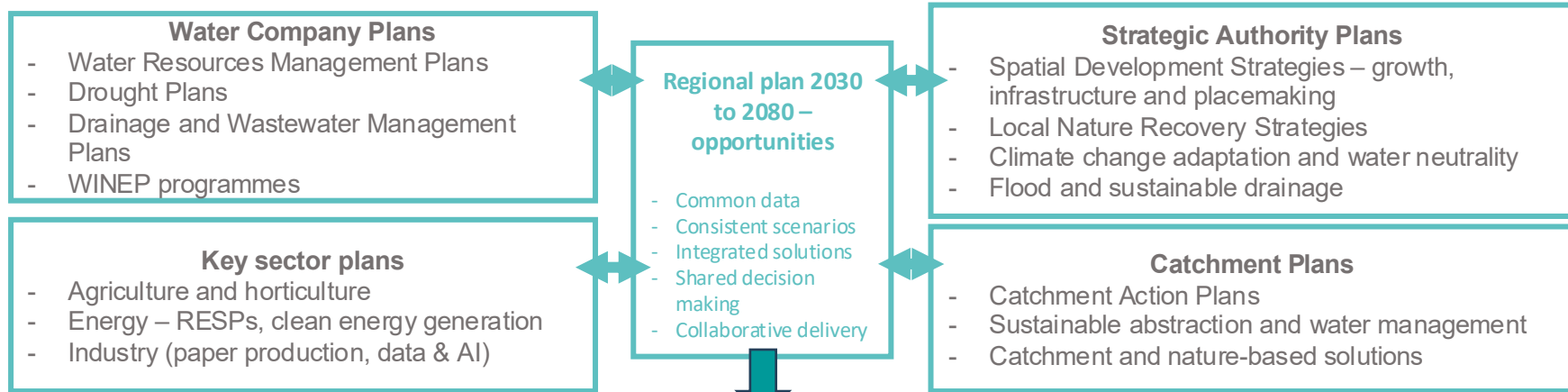
- Reducing demand is a critical part of building long term resilience
- Our plan requires **830MI/d of water to be saved by 2035** – two thirds of the shortfall in the first 10 years
- How can we solve the challenge through more efficient use of water?
 - ✓ Government Water labelling
 - ✓ OFWAT Water efficiency campaign
 - ✓ Implementing tighter water efficiency standards in new developments
 - ✓ Retrofitting existing homes with water saving devices, including smart meters.
 - ✓ Embedding water efficiency requirements in local plans and planning conditions
 - ✓ Promoting water efficient design e.g. rainwater harvesting and grey water reuse
 - ✓ Mandatory water labelling and minimum product standards



Contribution of demand management schemes in the South East of England by 2050

Regional plan 2030 to 2080 – transition period

An opportunity to increase alignment and integration and to plan ahead collaboratively for growth and changing environmental requirements



What happens if we get it wrong?

"Missing per capita consumption target by just 1 litre per person, per day in the South East of England would require the development of a reservoir the size of Havant Thicket to ensure sufficient future resources."





Role of local authorities in managing water resources

For ADEPT Webinar, 6th July 2026

Daniel Johns

- *Managing Director, Water Resources East*

Introduction to WRE

- Independent, not-for-profit membership organisation
- One of five regional water resources planning groups
- Key sector interests form our board and fund our core costs



AffinityWater



ESSEX & SUFFOLK
WATER living water



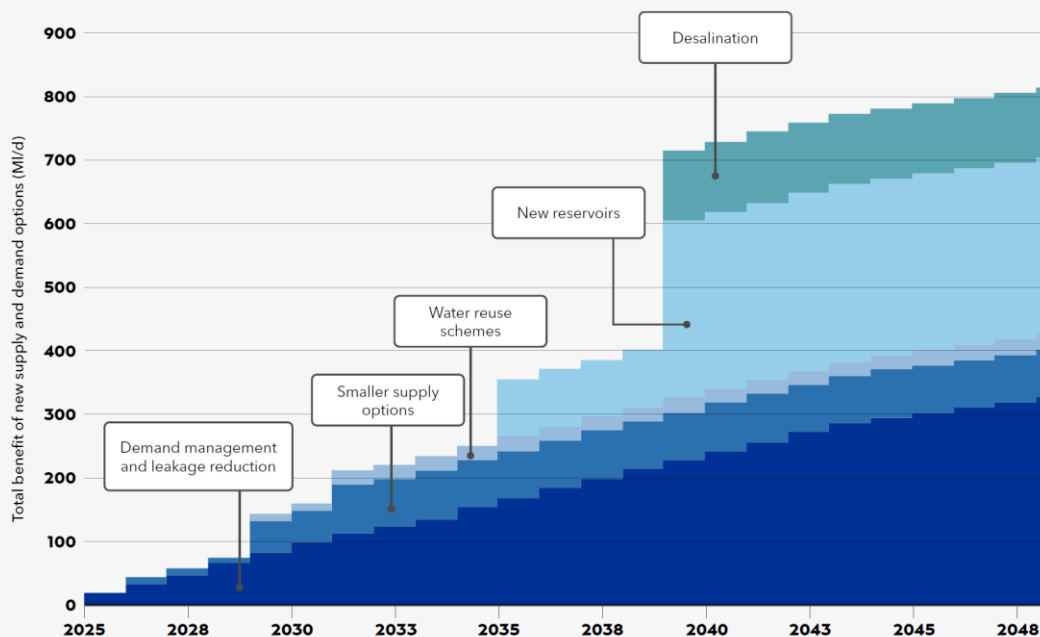
RWE

Urban&Civic plc

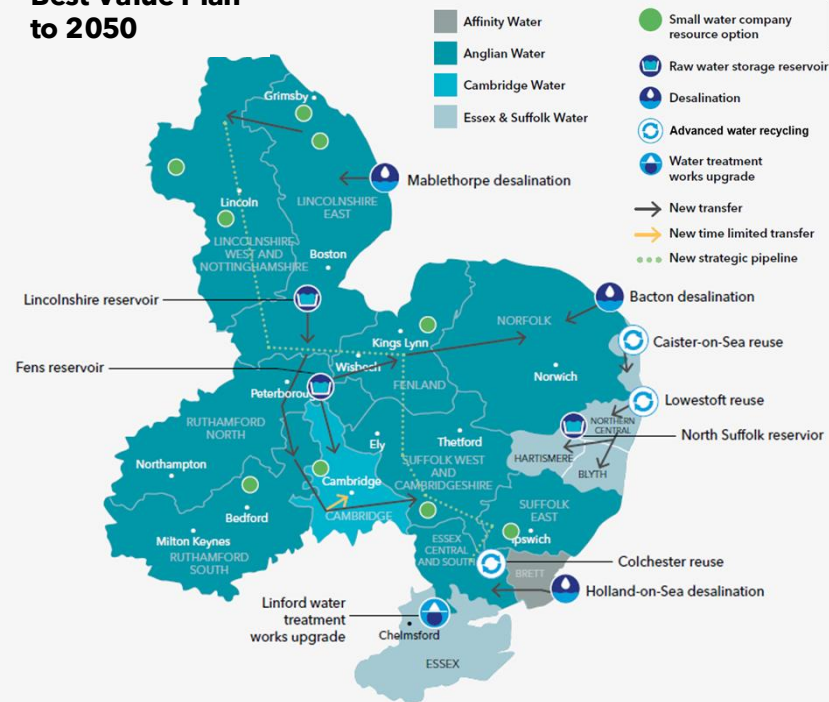


WRE's Regional Water Resources Plan

Bridging the projected public water supply deficit over time



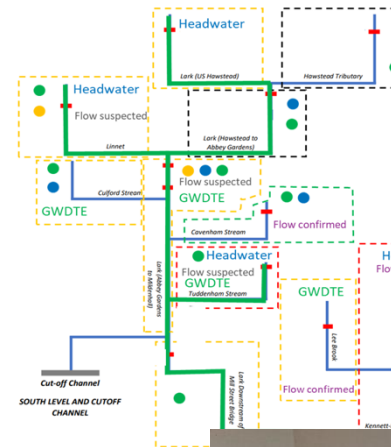
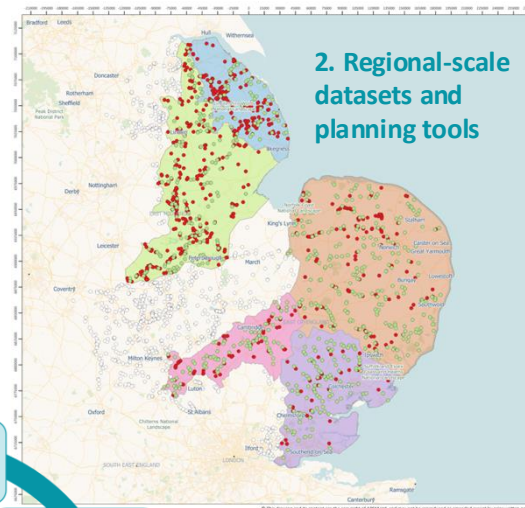
Best Value Plan to 2050



Developing WRE's Regional Plan 2.0



1. Cross-sector governance



3. Catchment schematics and new data portal to support detailed stakeholder engagement

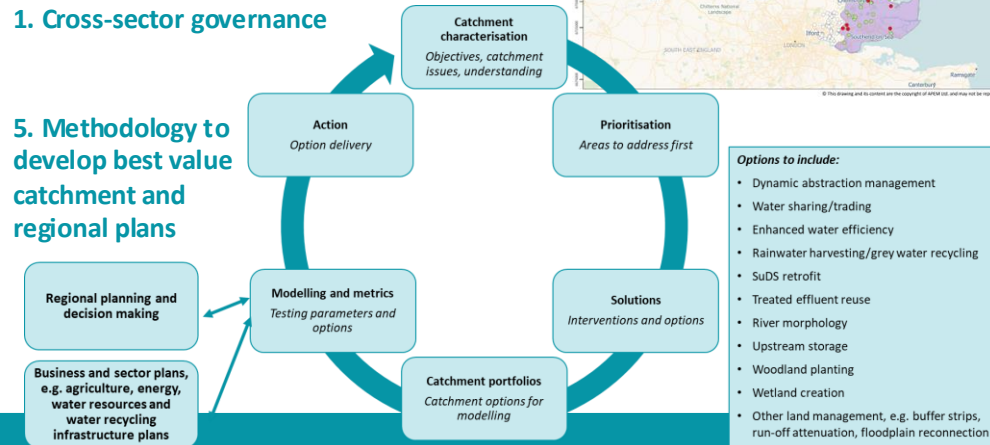
- Chalk stream
 - Water recycling centre
 - Agricultural abstraction
 - Public water supply abstraction
 - Industry abstraction
 - GWDTE Groundwater Dependent Terrestrial Ecosystem
- Waterbody Ecological Status**
- Bad
 - Poor
 - Moderate
 - Good

**LARK
(CAM AND ELY OUSE)**



4. Stakeholder workshops to identify priorities and develop options

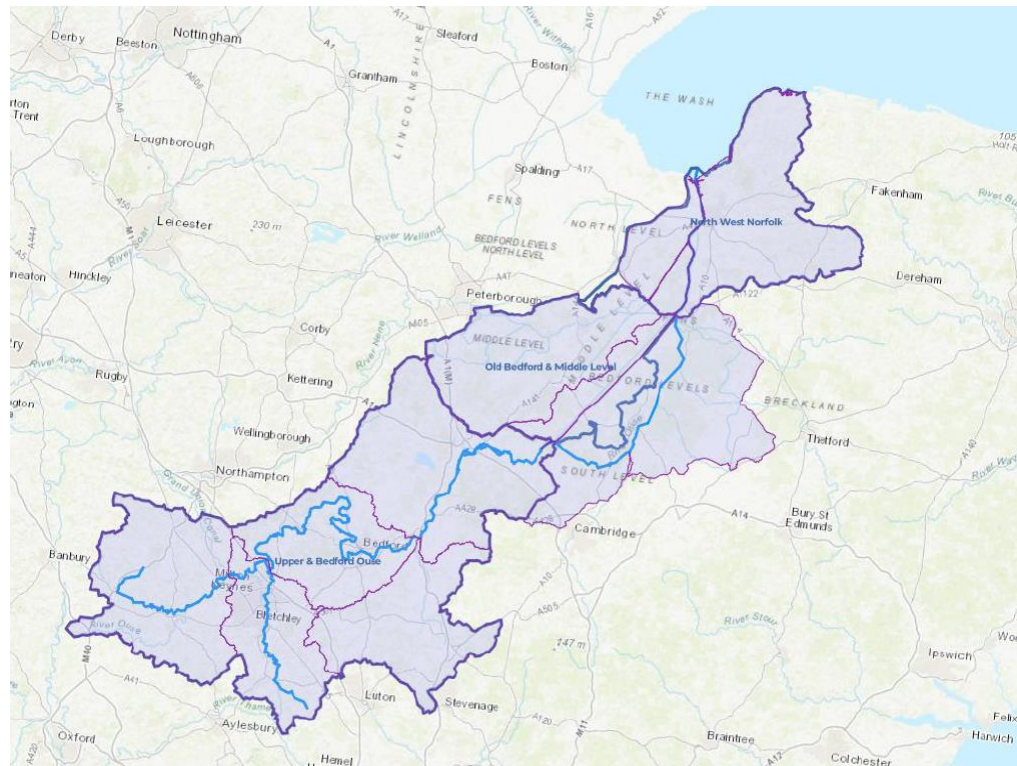
5. Methodology to develop best value catchment and regional plans



Great Ouse Catchment System Plan

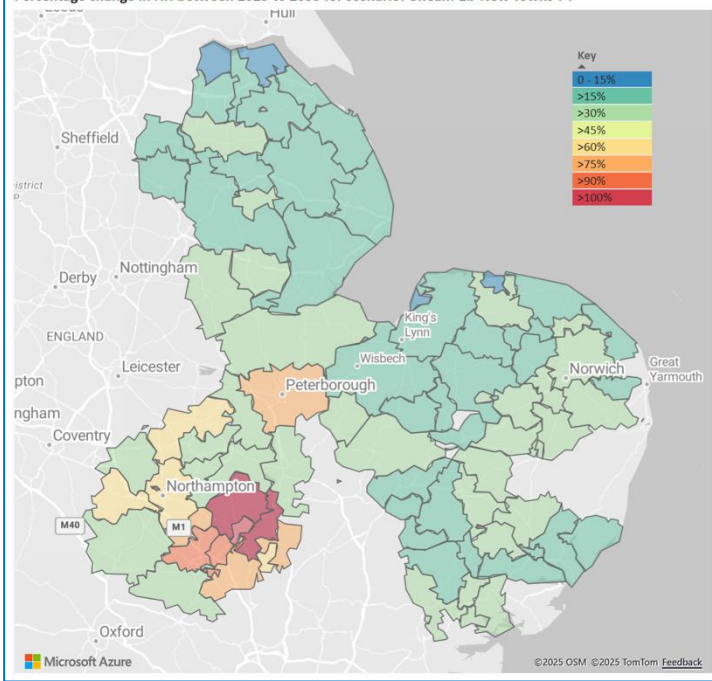
Key pressures for the Great Ouse that need to be addressed in a holistic way:

- The sustainability of groundwater abstractions from the chalk aquifer
- Nitrate levels in the Bedford Ouse, which are affecting abstraction into Grafham Water
- Capacity to accept further water recycling discharges from future growth due to high phosphorus levels in waterbodies
- The quantity (notably water levels in Spring) and quality of water undermining conservation objectives for the Ouse Washes
- The quality of raw water for abstraction and level of treatment needed for the proposed Fens Reservoir, affecting yield and costs



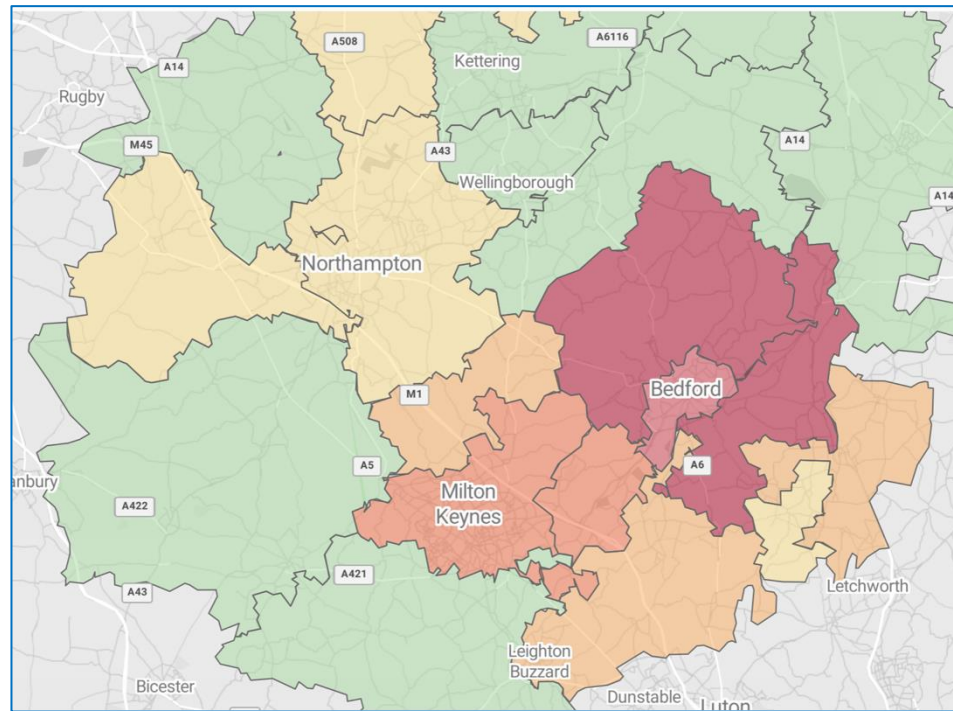
Infrastructure-led growth planning

Percentage change in HH between 2025 vs 2055 for scenario: OxCam-2b-New Towns-r-P



Key regional growth scenario – showing growth distribution across AWS (planning zones) – includes theoretical uplift for strategic growth and new towns

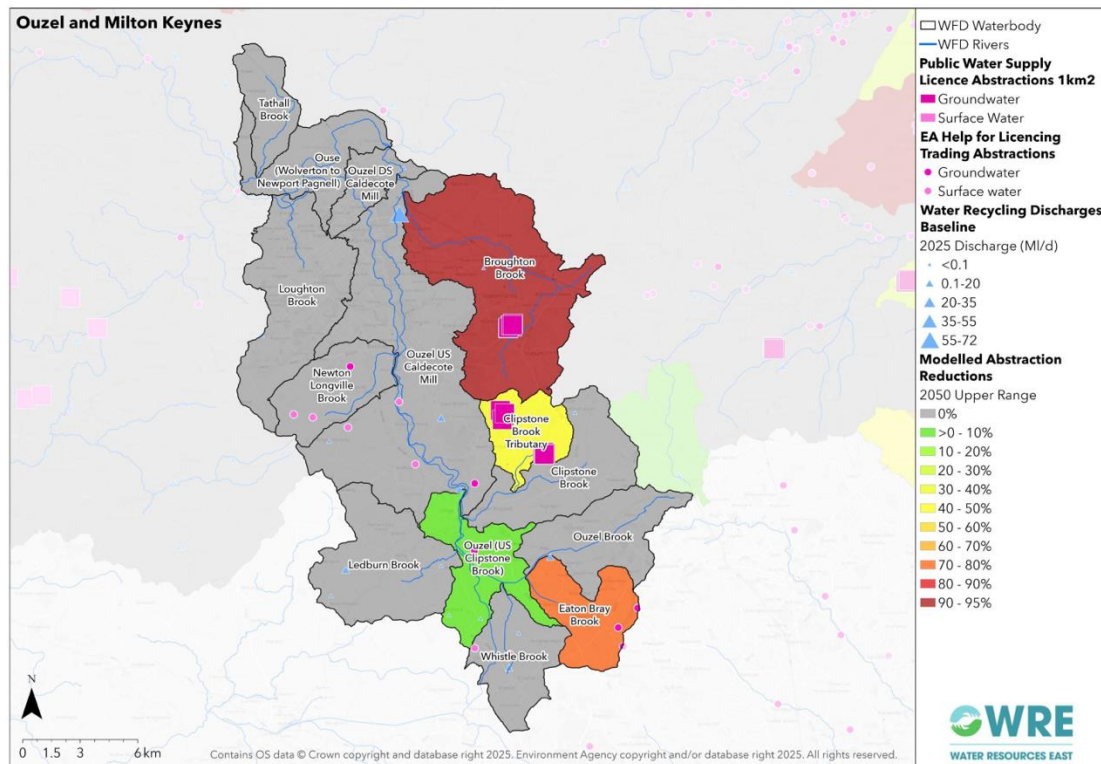
Detail



Key regional growth scenario – detailed view by AWS planning zone map for strategic growth and new town uplift

Challenges to growth: abstraction reform

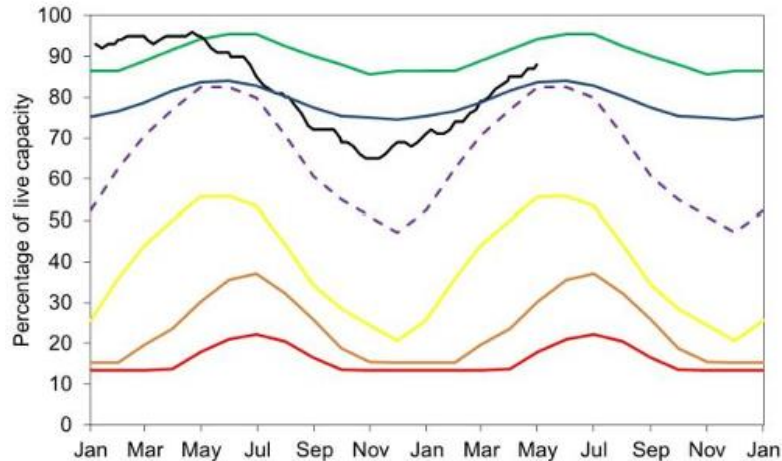
- Significant abstraction reductions likely by 2040 depending on the waterbody
 - See Ouzel and Milton Keynes (right)
- WRE is working with water companies, agricultural and other sector abstractors, catchment partnerships and the Environment Agency to explore alternative options
 - Increasing local water capture and reuse
 - Moving abstraction points downstream, and discharges upstream
 - Catchment and Nature-based Solutions



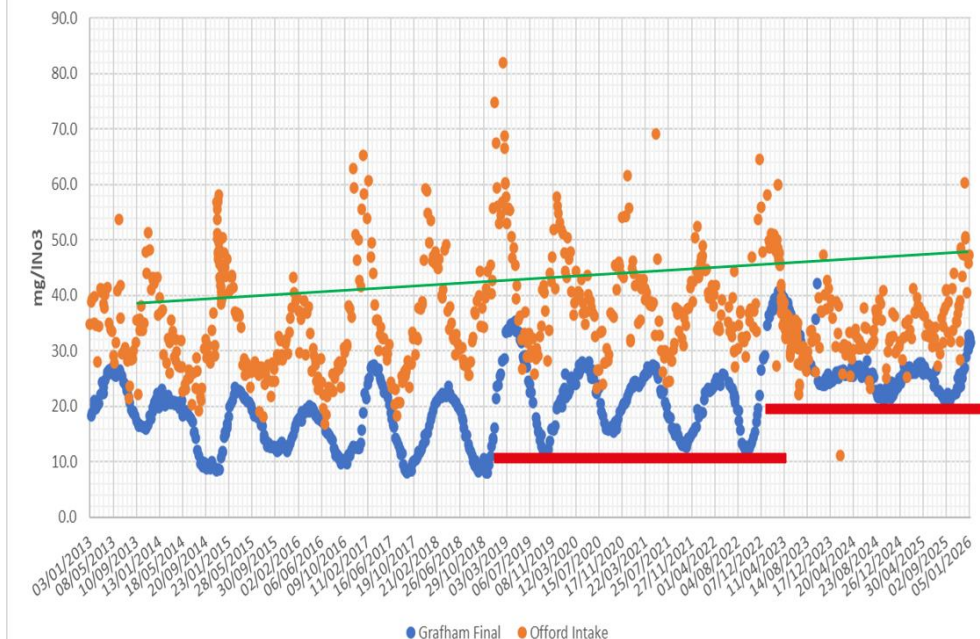
Challenges to growth: nitrates

- Grafham Water unable to be fully refilled this winter due to high nitrate levels at the abstraction point in the Great Ouse
 - Grafham strategically important for Anglian Water, Affinity Water, and from 2032, Cambridge

Grafham - AWS



Grafham Final & Offord Nitrate Levels
2013-2026



Challenges to growth: water recycling capacity

8

**CAM, RHEE AND GRANTA
(CAM AND ELY OUSE)**

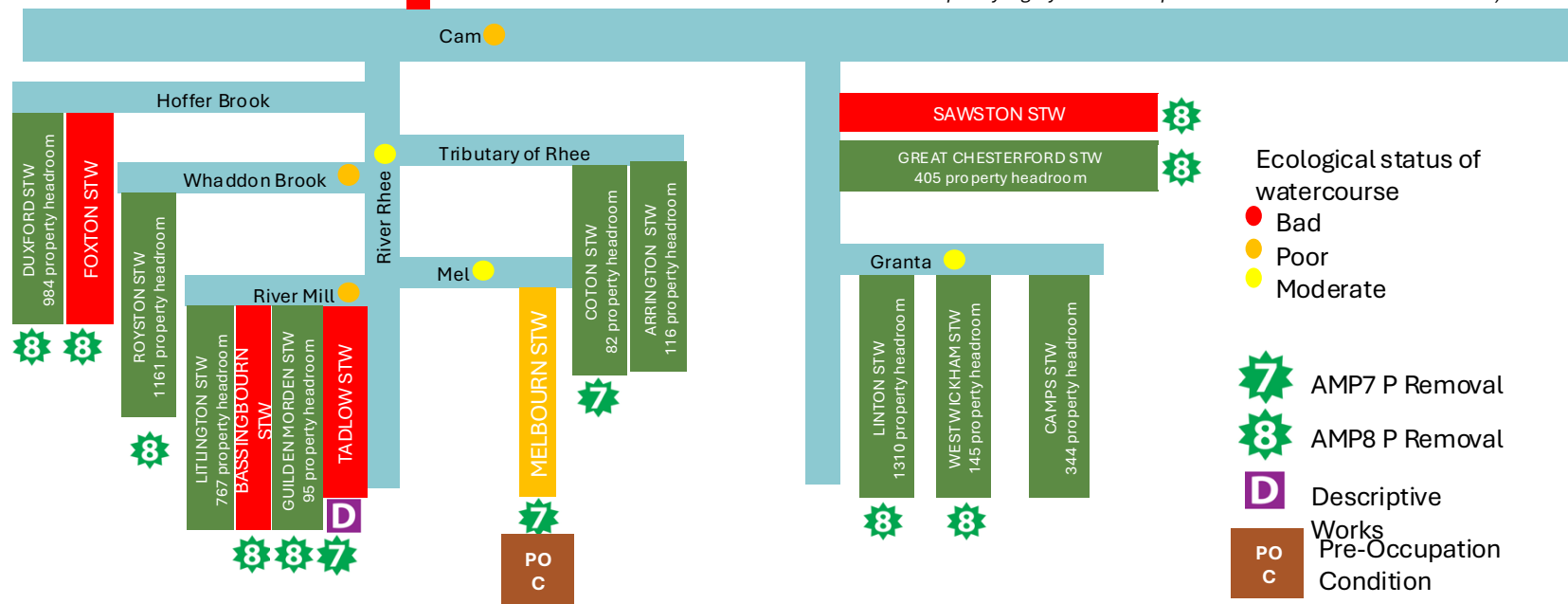
Objection – no capacity

Condition – growth scheme in AMP8

Approve - capacity

Anglian Water Treatment Works Capacity

(based on Dry Weather Flow using 2024 data as baseline. Capacity figures converted to properties based on assumed occupancy, per capita consumption and infiltration. Current planning position until April 2026. Dry Weather Flow capacity highly variable dependent on weather and other factors)



Ecological status of watercourse

- Bad
- Poor
- Moderate

8 AMP7 P Removal

7 AMP8 P Removal

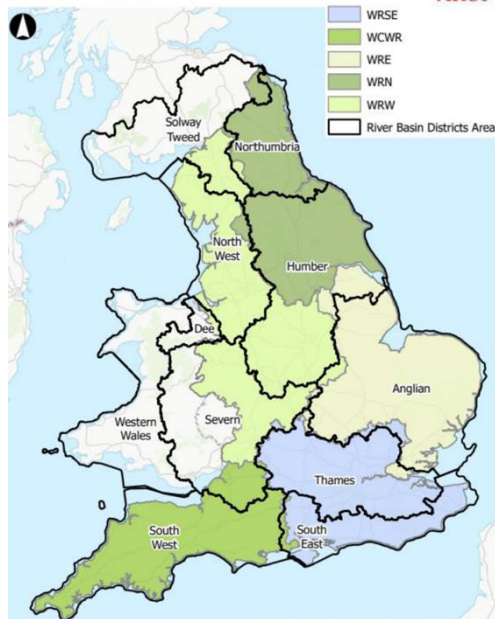
D Descriptive
POC Works Pre-Occupation Condition

WRE is already a regional system planner

- WRE's aim is to **pioneer collaborative, integrated approaches to water and environmental management**

River Basin Districts + RG

ARUP



Regional system planning requirements	WRE
Regional-scale	Y
Hydrological boundaries	Y
Independent organisation, independent chair	Y
Multi-sector and strategic authority representation on board	Y
Tied in with local growth plans and LNRs	Y
Scope: Water supply planning	Y
Water environment planning, including C&NbS	Increasingly
Relationship with catchment partnerships and farm clusters	Y
Able to direct funding to catchment pilots and delivery projects	Y
Can coordinate consultation and engagement regionally	Y
Statutory body/planning function	N
Core costs currently funded by government	N
Team size	11

Role of local authorities in managing water resources

For ADEPT Webinar, 6th July 2026

Wendy Brooks

- *Head of Environment, Norfolk County Council*
- *Non-Executive Director, Water Resources East*



Where is Norfolk?



Norfolk
County Council

Norfolk Growth Plan



It is our firm belief that developing our infrastructure, investing in public transport, joining-up education, skills and jobs, providing support for our businesses, managing our land and water resilience, and looking after our environment, will enable our county to grow and our people to live well.



Digital connectivity, energy and water management are vital and are big constraints on the future economy.

Norfolk and Suffolk Integrated Water Action Plan (I-WAP)



Norfolk
County Council



Suffolk
County Council



Norfolk
County Council

Purpose

Located within the driest region of the UK East Anglia, Norfolk and Suffolk face significant and growing water related challenges including:

- limited water availability
- declining water quality
- physical changes to water systems
- increase in salinity in coastal areas
- an increased risk of flooding
- declining natural environment

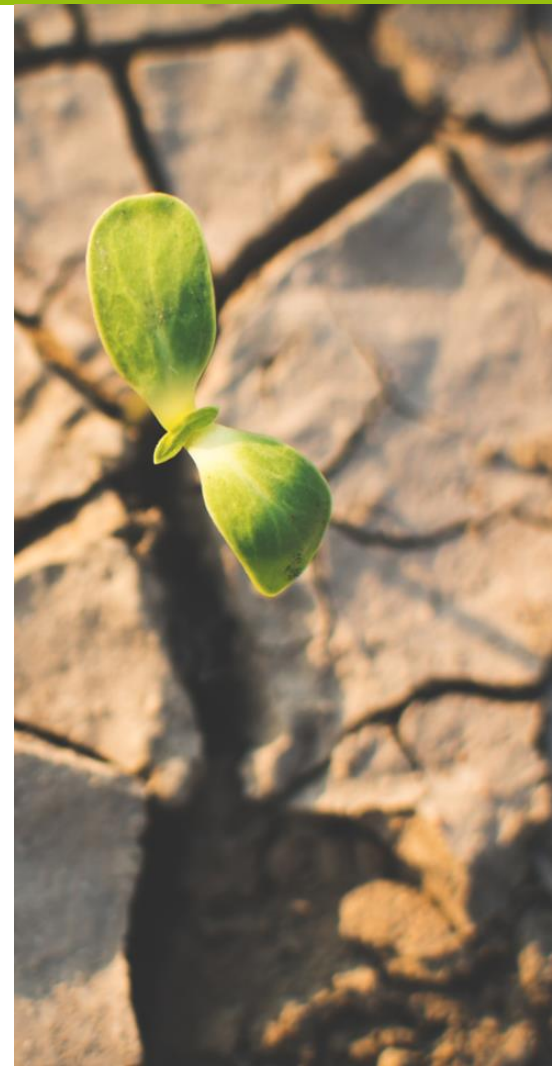
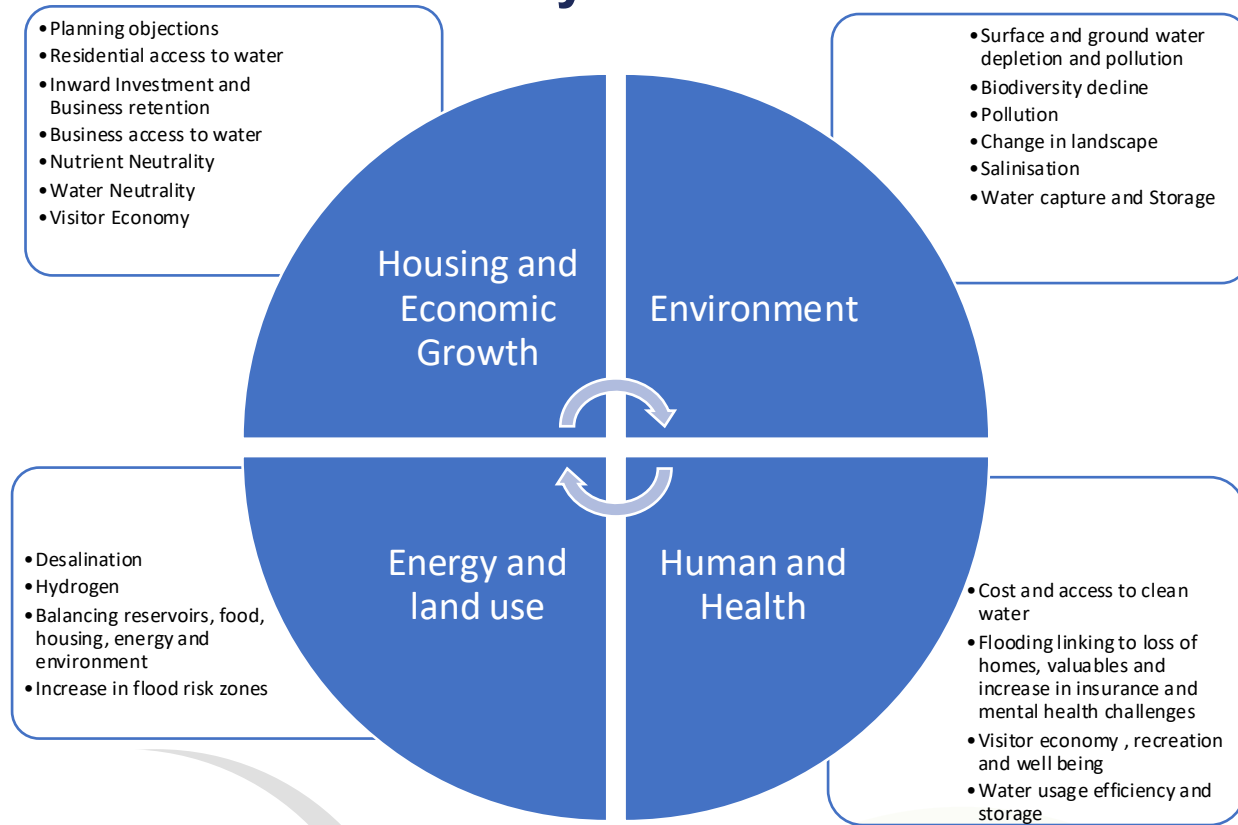


These issues are compounded by competing demands for water from public supply, business, agriculture, and the natural environment.

The Integrated Water Action Plan (I-WAP) looks to deliver an action plan for Norfolk and Suffolk that supports

- sustainable economic growth
- environmental resilience
- climate adaptation
- Also aligning infrastructure, policy, and innovation with future water demands and risks.

Key Themes



Outcomes

Sustainable Economic and Housing Growth

Understanding the economic value of water scarcity

Infrastructure planning aligned with water availability

Inward investment and business retention improved by addressing water capacity constraints.

Agricultural sector better supported through sustainable abstraction and irrigation planning.

Improved Water Resilience

Better ability to manage water scarcity, drought, and flood risk.

Smarter and increased availability of water storage, reuse, and efficient use across sectors.

More reliable water supply to support agriculture, housing, and industry.

Environmental Restoration and Protection

Enhanced biodiversity through better water quality and wetland resilience.

Reduced pollution from agricultural and highway runoff and combined sewage overflows.

Ensure that the impacts of development do not have a detrimental impact on the water environment.

Strengthened coastal and riverine ecosystems against erosion and salination.

Health and Wellbeing Protection

Reduced exposure to waterborne diseases through improved wastewater management.

Better flood protection for communities and infrastructure.

Enhanced public access to clean water for recreation and mental wellbeing.

Cross-sector Collaboration and Integration

Stronger partnerships with water companies, regulators, agriculture, local government and businesses.

Unified and evidence-based advocacy to government and private funders.

Streamlined innovation delivery through coordinated project mapping and funding.

Climate Adaptation Readiness

Regionally and locally coordinated response to changing rainfall, sea level rise, and droughts.

Long-term land use planning that balances housing, agriculture, and conservation needs.

Outputs

Comprehensive Water Data and Evidence Base at County and District level

Water demand and wastewater forecasts.

Mapping and modelling of water quality, availability, flood risk, and capacity for growth.

Evidence base to inform district Water Cycle Studies

Economic analysis of water scarcity and its financial impact.

Integrated Action Plan for Norfolk and Suffolk

Prioritized actions across four key themes

Defined roles and responsibilities for stakeholders (e.g., councils, water companies, developers, private sector and communities).

Timeline for implementation and progress monitoring

Stage 1 Water Cycle study reports for each district in Norfolk and Suffolk. Scoping brief to be agreed if relevant.

Innovation and Project Pipeline

Catalogue of current and future water projects

Coordination of nature-based and engineered solutions.

Cross-sector innovation opportunities, especially in Agri-tech, tourism, digital and manufacturing.

Investment Strategy and Funding Pathways

Strategies to attract private and government investment

Portfolio of business cases for priority water-related interventions

Nutrient, Water, BNG, Carbon Credits, Natural Capital – interlink and engagement

Portfolio of Case Studies

Real-world examples of successful water solutions

Lessons learned and transferable practices.

Constraint and Opportunity Mapping

GIS-based overlays showing where environmental, energy, water, and growth priorities align or conflict.

Support credible evidence-based planning and influence land use decisions.

Stakeholder Engagement Reports

Documented outcomes of engagement with residents, businesses, water companies, and sectoral experts.

Communication and education strategies to drive public behaviour change.

Introduction to the Norfolk Water Fund



© Water Resources East



Norfolk
County Council

The Nature
Conservancy



**NORFOLK WATER
STRATEGY PROGRAMME**



Norfolk's exceptional water environment is at risk from a range of chronic pressures



These pressures lead to serious environmental and economic consequences for the county



Tackling water security threats to Norfolk's environment and economy since 2021



NORFOLK WATER
STRATEGY PROGRAMME

Scan QR code
for more
information



NbS for water security



Runoff attenuation features

Edge-of-field measures to attenuate and store runoff under high flow events, these may include scrapes, sediment traps and ditch blocking efforts.



Riparian restoration

Re-planting and restoration of habitats along riparian areas to buffer runoff before it enters stream or river networks. May include grassland or woodland dependent on location.



Soil management practices

In-field measures to decrease runoff and encourage infiltration consisting of: minimum tillage practices, buffer strip creation, introduction of cover crops.



Arable conversion to grassland

Conversion of arable land to native, species-rich grassland. Priority species and grassland type depend on the location of implementation.

Our approach:

1. Targeting NbS

We have identified where NbS could provide the **greatest environmental benefits** through **opportunity mapping and modelling**.

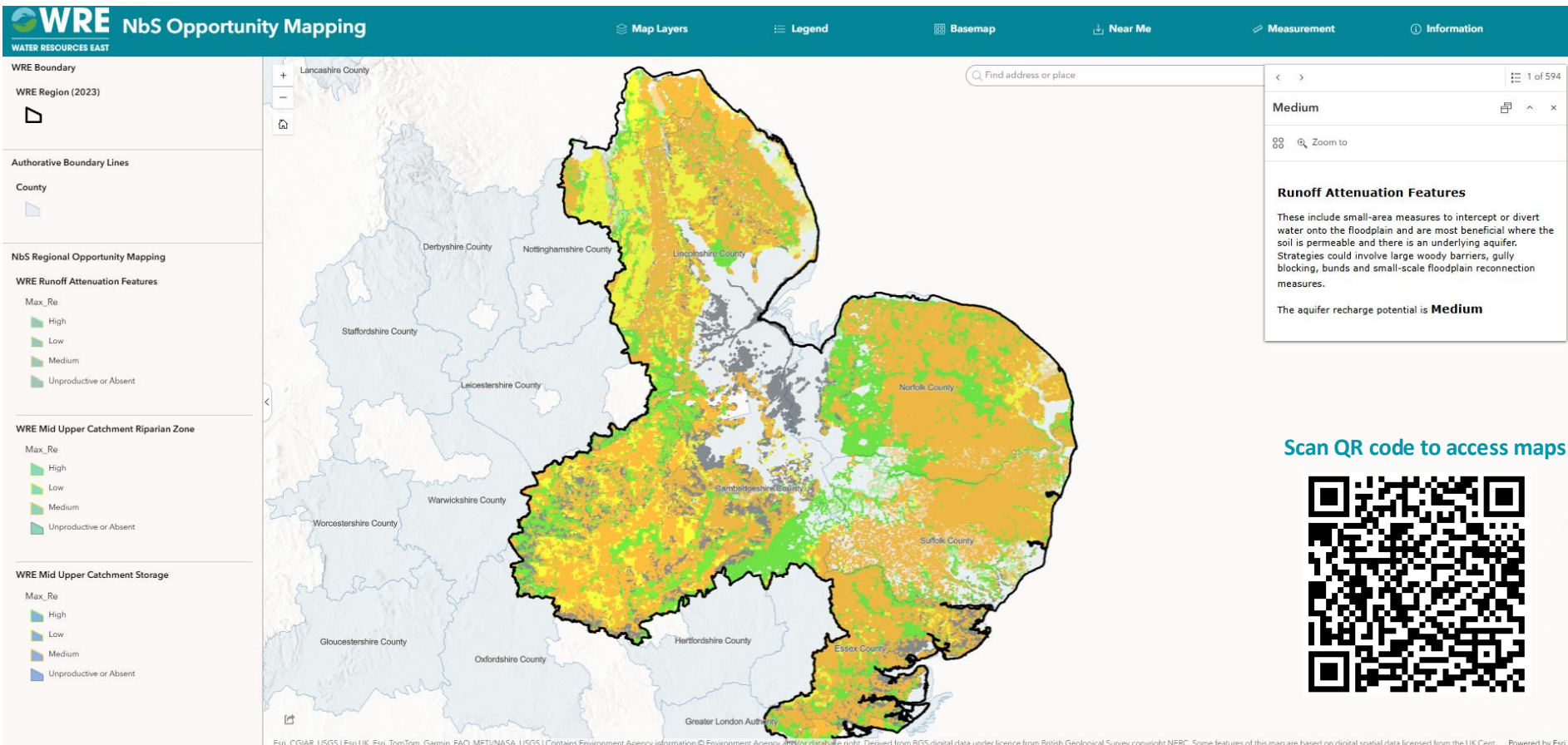
Modelling shows NbS could support aquifer recharge and mitigate low flows in chalk streams.

We have developed a **NbS Prioritisation Tool** that estimates NbS potential and benefits for specific sites, and alignment with LNRS etc.

This enables us to compare and prioritise projects for feasibility and funding approval.



New NbS opportunity maps for the entire WRE region: free to access and download



Our approach:

2. Funding and financing NbS

We developed **a business case** for a £30 million Norfolk Water Fund to tackle water challenges threatening the county's wildlife and economy.

Every £1 invested in NbS yields £6.70 in benefits: better water resources and quality, enhanced wildlife habitats, and sustainable housing growth.

The economic analysis shows how emerging **nutrient and biodiversity markets** and specific **ELMs SFI and Higher Tier options** could create new income streams for landowners.





Our approach:

3. Delivering NbS

We are building our understanding of NbS through **pilot projects** in partnership with delivery partners.

By applying NbS, we can **test different approaches** and assess their effectiveness, gathering lessons learned and **building capacity**.

This hands-on learning helps improve future NbS initiatives and ensures they deliver maximum impact.

Floodplain reconnection, River Yare

- Funded by Environment Agency, WWF Finish, Anglian Water, NWSP. Delivered by NRT and IDB. Located at Coston.
 - Created a 651m meandering river channel, six scrapes and two ponds.
 - Aerial photograph of the completed restoration project taken on 16 October 2024, when the cut-through from the main river was made.
- © Josh Jaggard



Nature for Norwich



NORFOLK WATER
STRATEGY PROGRAMME

Funded by WWF through their global NbS Accelerator programme, delivered by Swallowtail Consulting. Feasibility completed January 2025.

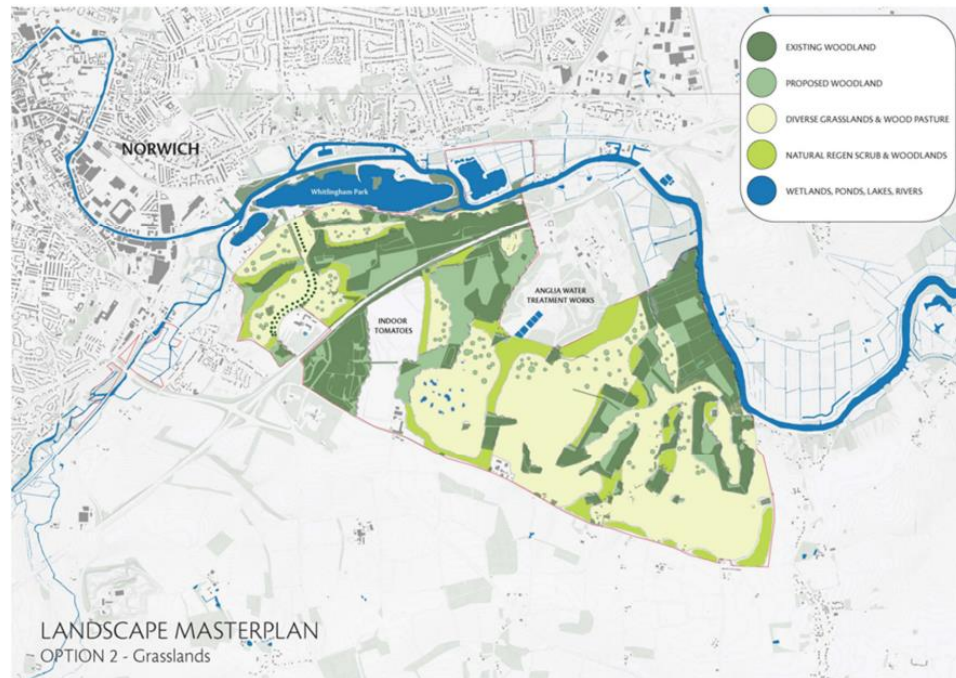
- **Land use transition planning:**

Final land use change masterplan for Crown Point Estate produced and fully costed.

Comprehensive baselining carried out.

Whitlingham Country Park (WCP) social impact work by Norfolk Wildlife Trust.

Follow up NbS project implementation at WCP to be funded by DS Smith trust.



WORLD
RESOURCES
INSTITUTE



Keswick Mill floodplain re-connection



NORFOLK WATER
STRATEGY PROGRAMME

Following **feasibility** studies carried out in 2023, this was **implemented in September 2025**.

Part funded by Royal Bank of Canada (£30k) through NWF, alongside AW's Get River Positive and EA's WEIF.

- **Interventions:**

Ditch side berms (a flooded ditch margin created by excavating a step which is 2m wide and 0.3m deep, along one side of a ditch).

Four shallow scrapes.

Two ponds at dyke junctions.





Norfolk
County Council



Thank you for listening

Connect with us

 www.wre.org.uk

in [Water Resources East](#)



Panel discussion and audience Q&A

All Speakers and John Curtin, President, CIWEM



ADEPT

For more information visit www.adeptnet.org.uk