Environment Agency

The National Framework for Water Resources 2025

Water for growth, water for nature, water for a resilient future

Summary Document

We are the Environment Agency. We protect and improve the environment.

We help people and wildlife adapt to climate change and reduce its impacts, including flooding, drought, sea level rise and coastal erosion.

We improve the quality of our water, land and air by tackling pollution. We work with businesses to help them comply with environmental regulations. A healthy and diverse environment enhances people's lives and contributes to economic growth.

We can't do this alone. We work as part of the Defra group (Department for Environment, Food & Rural Affairs), with the rest of government, local councils, businesses, civil society groups and local communities to create a better place for people and wildlife.

Published by:
Environment Agency
Horizon House, Deanery Road,
Bristol BS1 5AH

www.gov.uk/environment-agency

Further copies of this report are available from our publications catalogue: www.gov.uk/government/publications or our

National Customer Contact Centre: 03708 506 506

Email: enquiries@environment-agency.gov.uk

Forewords

Huge pressure already exists on the nation's water resources and, with population growth and climate change, that pressure is set to continue and steadily increase.

Estimates suggest that, without continued action, we could have a 5 billion litre a day shortfall by 2055 for public water supplies alone. Apart from the threat to water supply to homes, growing pressure could restrict economic growth, damage resilience for energy supplies, limit food production and harm the environment.

The National Framework for Water Resources identifies the essential actions needed to meet the challenges at a national, regional and catchment scale. It builds on the foundations of the 2020 Framework and takes further steps to strengthen multi-sector water resources planning.

As a nation, it is paramount that we tackle these challenges head-on. It is crucial that we deliver large-scale and co-ordinated action and unlock more opportunities to address pressures on the water environment from unsustainable abstraction. Continued and sustained effort from government, from regulators and action from regional groups, water companies, abstractor groups and water users across all sectors is critical. Action includes resource development, both at a strategic and local scale, and a joined-up, solutions-led approach between sectors. The Framework also clearly identifies that an enhanced focus on delivering demand management savings is vital – particularly in the period before new supplies are ready for use.

This Framework does chart a course whereby we can respond to that 5 billion litre a day challenge. By integrating catchment management and seizing opportunities to work collaboratively, we can deliver improved water supply resilience and create a better environment. But it needs to start right now.

Alan Lovell
Chair, Environment Agency

In 2020 the first National Framework for Water Resources was published, transforming how we plan for more resilient water supplies for consumers, the environment, agriculture and other water users. Since then, five regional groups have worked collaboratively across sectors and with environmental groups, regulators and wider interested parties, to develop plans that consider each region's needs and for those plans to fit together to provide a joined up national solution.

This second National Framework, builds on those regional plans with independent analysis of the water resources needed to protect and improve the environment, to support growth in housing and the economy, provide water for food and to meet the needs of the energy sector in delivering net zero. The scale of the challenge in providing resilient water supplies has never been greater.

Meeting this challenge requires ambitious action, with more nature-based solutions to protect, restore and enhance the water environment; in delivering new supplies and strategic transfers through a step change in investment in critical infrastructure; and in reducing the demand for water by reducing leakage from public water supply and helping individuals and organisations use less water.

Change on the scale needed requires collaborative action across government and all major water users, as well as a national narrative to engage businesses and consumers in the role we can all play in ensuring resilient water resources and a thriving environment.

I look forward to continuing a collaborative approach to the evolution of national and regional water resource planning.

Jean Spencer

Independent Chair of the National Framework

Contents

The National Framework for Water Resources, 2025

The National Framework explores the long-term water needs in England across different sectors of water use. It considers the capacity of the water environment to be able to provide sustainable water supplies to homes and businesses, to support the production of energy and to improve food security. It considers emerging demands from other sectors, and identifies the actions needed to adapt to a range of future pressures.

Growth of the economy is central to the government's mission. Housing growth is a top priority, alongside moving to Net Zero and decarbonised industry, greater national food security and the UK as a world leader in data centres and Artificial Intelligence. All of these require water, and in some cases large quantities of potable water in areas which are already water stressed. Without a sufficient and sustainable water supply, growth cannot happen.

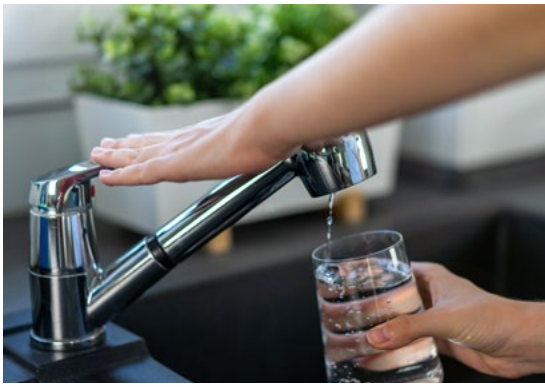
Water underpins the operations of multiple different sectors, it is critical in preserving and safeguarding the natural environment and without swift action across different sectors water supplies are at risk, jeopardising the environment and the growth agenda.

Without action, there is a likelihood of environmental damage, restricted economic growth, interruptions to supplies and a lack of resilience in the energy sector.

The National Framework 2025:

- Sets out the pressures and challenges for the water environment to 2055 and beyond.
- Sets the ambition for a sustainable abstraction regime and a protected and improved water environment.
- Explores potential new demands for water.
- Sets greater ambition for integrated, joined-up planning between water using sectors and with drainage and wastewater planning.
- Proposes actions and expectations for different sectors to rise to the challenge of planning for and improving water supply resilience.
- Provides a steer for regional water resources groups to evolve and to continue to innovate.

Note that this document is a summary of elements of the main National Framework report and is not comprehensive.



River Itchen
Hampshire

The National Framework embeds a three-tier approach to water resources planning

- **National**: A national function providing strategic overview and co-ordination
- **Regional**: Building on the establishment of the 5 Regional Water Resources Groups
- **Local**: Collaboration and implementation (water companies, Water Abstractor Groups and catchment partnerships)

Aims of the National Framework

Figure 1 - National framework aims

The Framework's aims are to:

- support long-term water resources planning across all sectors of use so that it enables growth
- enable sustainable abstraction of water across catchments
- strengthen multi-sector planning and resilience
- support an integrated approach to water management

Headline statistics

There could be an **additional 8 million people** in England by 2055, with **less water availability and increased water use due to climate change.**

If no continued and enhanced action is taken, around **5 billion extra litres of water per day** may be needed by 2055 **for public water supplies** to address future pressures.

A further **1 billion litres of water** may be needed by 2055 for water use other than public water supply. This includes water **for energy security and for food production**.

A programme of **£8 billion** has been secured through the latest round of water company planning to invest in infrastructure and actions **to improve water supply resilience and deliver environmental improvement**.

More than **60% of the deficit** will need to be addressed through **demand management and leakage reduction**. Initially, up to 80% of the deficit will be needed through this route until strategic resource options come online.

Regional planning is driving positive change

- Water companies look across their own company boundaries more effectively and plan for a higher level of drought resilience in the future.
- It has helped to identify strategic resource options (SROs), such as new reservoirs and national water transfers. AMP8 saw the number of RAPID schemes increase to 28 - a significant expansion from AMP7.
- There is a new level of collaboration and coordination across water companies, regions, sectors and regulators, bringing wider knowledge and expertise sharing.
- There is a long-term view of environmental needs within water resources plans.
- More stakeholders than ever before are engaging in water resources planning. The risks and constraints of water resources are far better known.

Figure 2 - Map of regional water resources group boundaries

Future pressures on water resources

The modelling of scenarios of population growth, climate change and environmental sustainability reductions demonstrates that without action, there could be a public water supply deficit of up to 5,000 Ml/d by 2055.

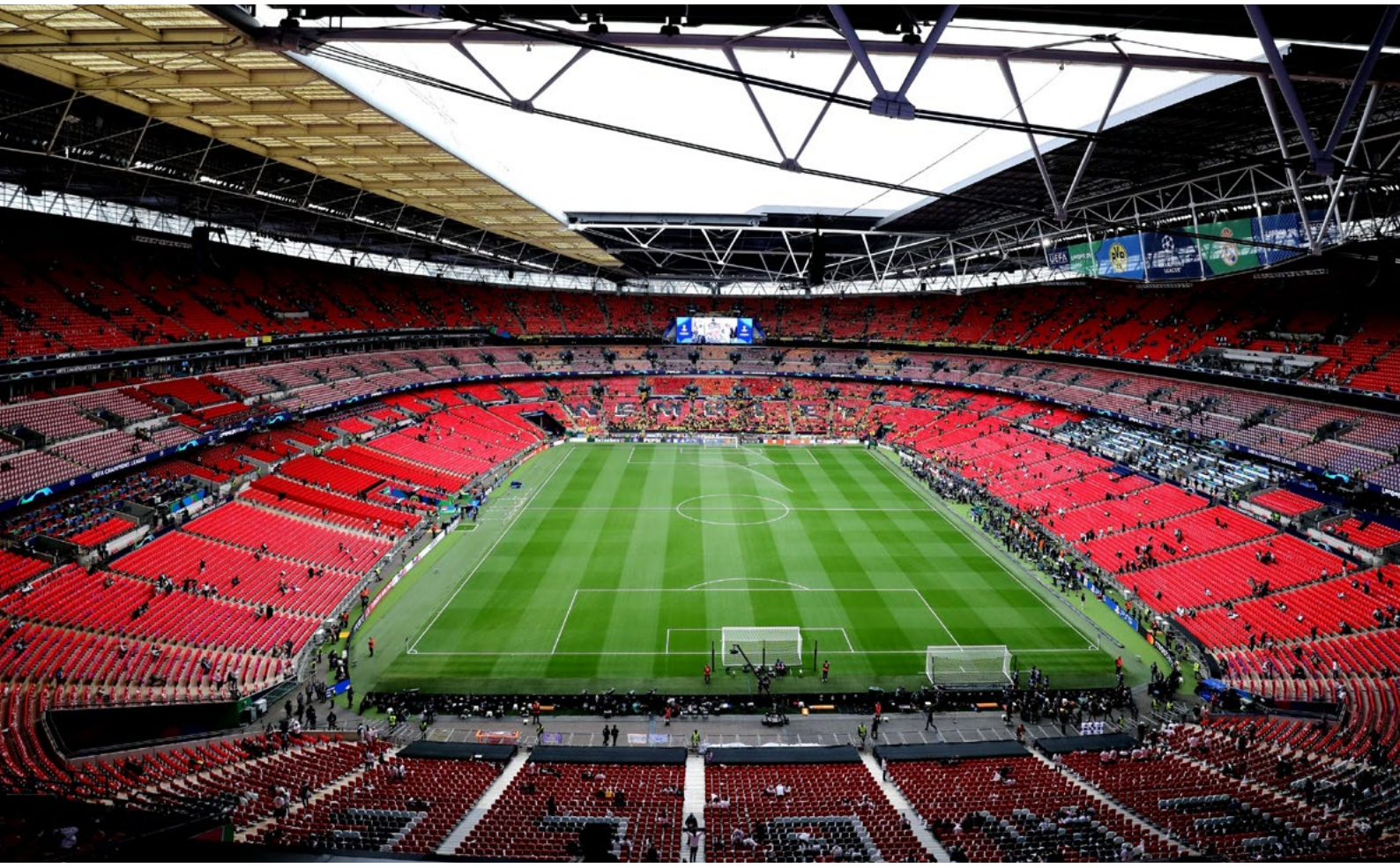
This is almost enough water to fill Wembley Stadium 4.5 times every day.

Environmental sustainability

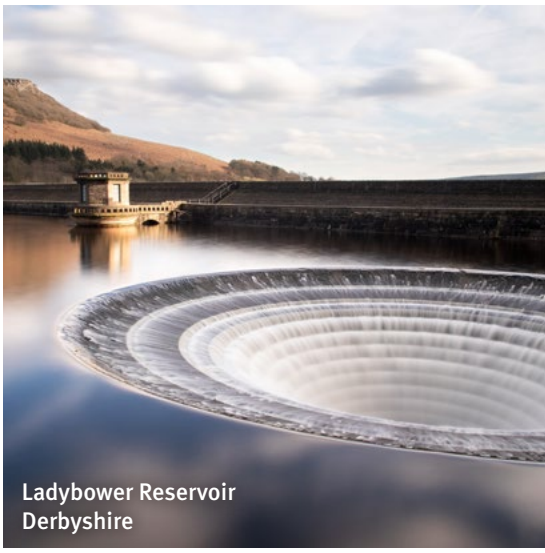
Reductions in abstraction licences are needed in some catchments now and also in the future to accommodate legal environmental requirements and government commitments and expectations.

An increased population

Increasing numbers of people will mean increasing demands for water. Forecasts used in water company plans show that the population in England is set to increase to over 71 million people by 2055, an



increase of over 8 million people from now. More homes and people will mean more water using appliances, more water needed to generate energy and produce food, more water to cool data centres, and a greater demand for water-using services such as leisure activities.


Ladybower Reservoir
Derbyshire

Improved resilience to drought

The latest round of water company water resources management plans has led to a step-change in ambition for drought resilience. By 2040, or earlier, water companies are planning to be resilient to a drought which has a 0.2% chance of occurring in any year. This level of resilience means that by 2040 the use of emergency drought options such as standpipes will not be needed unless there is an extreme drought.

Climate change

We are likely to face less water available overall, with warmer and wetter winters, and hotter and drier summers. Changing rainfall patterns may bring more intense rainfall events and the potential for a greater incidence of drought and flooding.

Reductions in summer rainfall may disproportionately impact some natural river flows, particularly where the underlying geology does not support flows sustained by groundwater.

The yearly window for groundwater recharge may also become shorter and more vulnerable, and hotter temperatures will increase public demand as well as the demand from vegetation and the loss of water through evaporation.

The impacts of climate change are already starting to be felt and is likely to have an increasingly bigger impact. There is an urgent need to deliver actions to adapt to the impacts of climate change to protect the environment, improve the resilience of water supplies and to safeguard the economy from future periods of prolonged dry weather and drought.

Understanding England's future water needs

Figure 3 - National and regional deficits

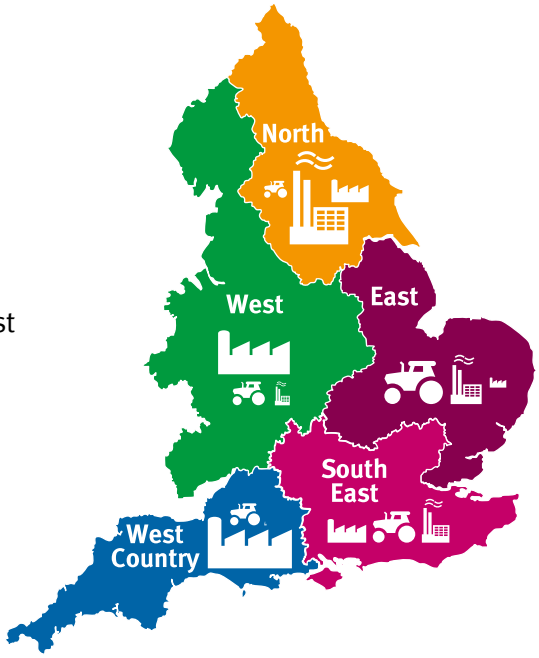
The National Framework provides a picture of England's future water needs across each of the regional groups by 2055.

For public water supply, the estimated **additional** water need between 2030 and 2055 includes the key drivers:

- Increasing resilience to a 1 in 500-year drought
- High population growth
- High environmental improvement through the delivery of the most ambitious reductions identified in current water company plans
- Analysis of climate change impacts

There are also other factors influencing the water supply by 2055, not captured above, which will result in both increases and decreases in total water availability across each region.

We also show the **upper** estimate forecast of the proportion of consumptive water used by the different sectors in each region. We have shortened million litres per day to Ml/d.



Water Resources West

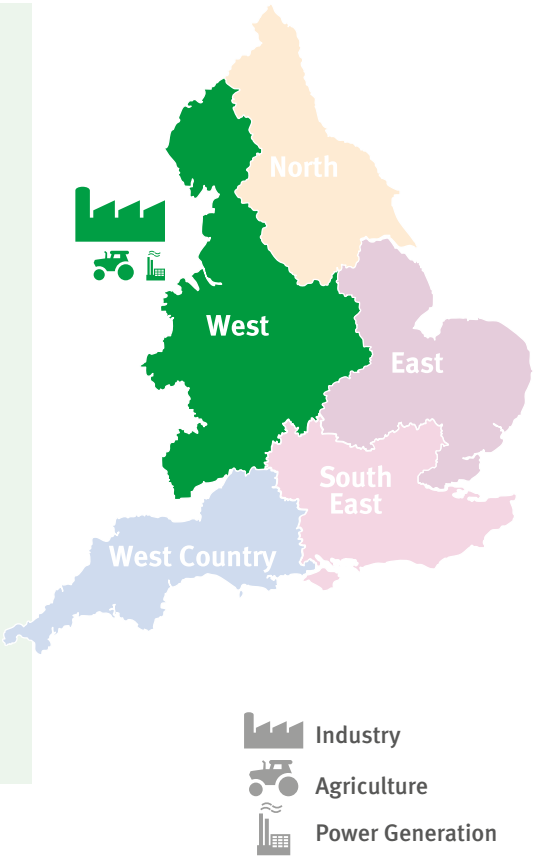
(The map shows the full area of WRW including parts of Wales. The values also include Welsh zones within the boundary, but the headline figures in the Framework do not)

Additional public water supply needs between 2030 and 2055: 1073 Ml/d including

- Drought resilience: **62 Ml/d**
- Population change: **232 Ml/d**
- Environmental improvement: **572 Ml/d**
- Climate Change: **84 Ml/d**

Estimated total demand from other users: 429 Ml/d

- **49%** industry (food and drink, metal production, chemicals)
- **27%** agriculture (spray irrigation)
- **17%** power generation



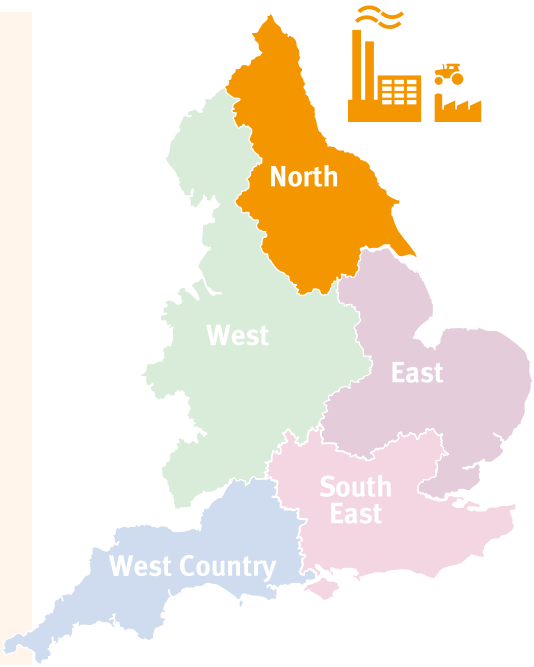
Water Resources North

Additional public water supply needs between 2030 and 2055: 345 Ml/d including

- Drought resilience: **70 Ml/d**
- Population change: **99 Ml/d**
- Environmental improvement: **109 Ml/d**
- Climate Change: **60 Ml/d**

Estimated total demand from other users: 261 Ml/d

- **22%** industry (food and drink, chemicals, mineral products)
- **17%** agriculture (spray irrigation)
- **59%** power generation



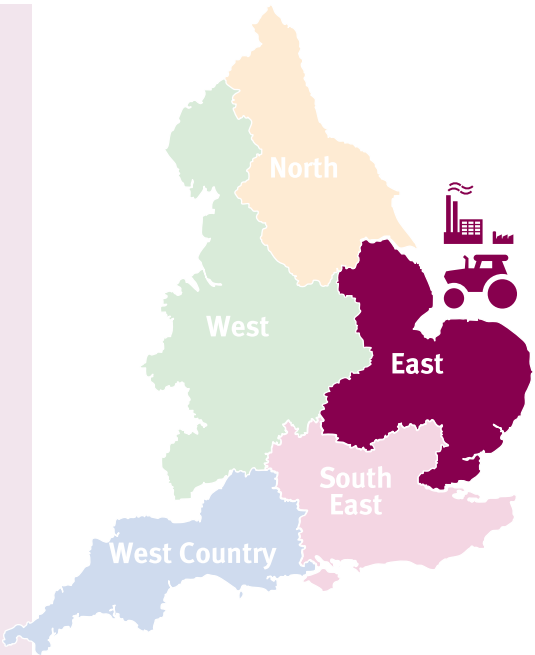
Water Resources East

Additional public water supply needs between 2030 and 2055: 679 Ml/d including

- Drought resilience: **114 Ml/d**
- Population change: **165 Ml/d**
- Environmental improvement: **415 Ml/d**
- Climate Change: **26 Ml/d**

Estimated total demand from other users: 564 Ml/d

- **11%** industry (food and drink, chemicals, mineral products)
- **47%** agriculture (spray irrigation)
- **34%** power generation



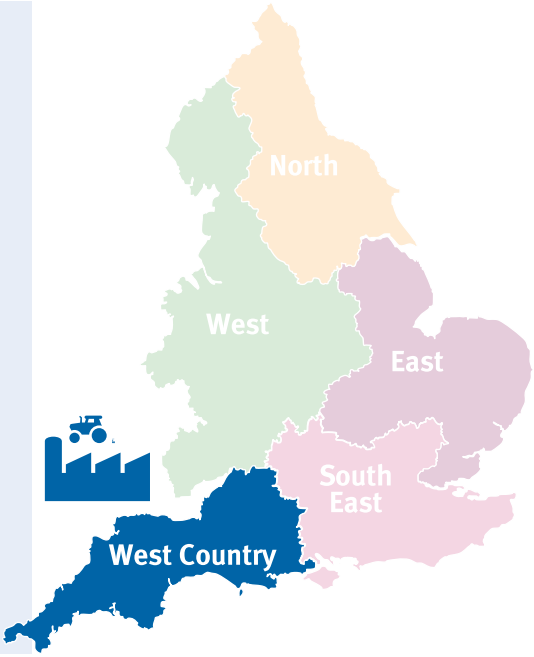
West Country Water & Environment

Additional public water supply needs between 2030 and 2055: 260 Ml/d including

- Drought resilience: **5 Ml/d**
- Population change: **85 Ml/d**
- Environmental improvement: **182 Ml/d**
- Climate Change: **20 Ml/d**

Estimated total demand from other users: 216 Ml/d

- **60%** industry (food and drink, chemicals, mineral products)
- **26%** agriculture (spray irrigation)
- **1%** power generation



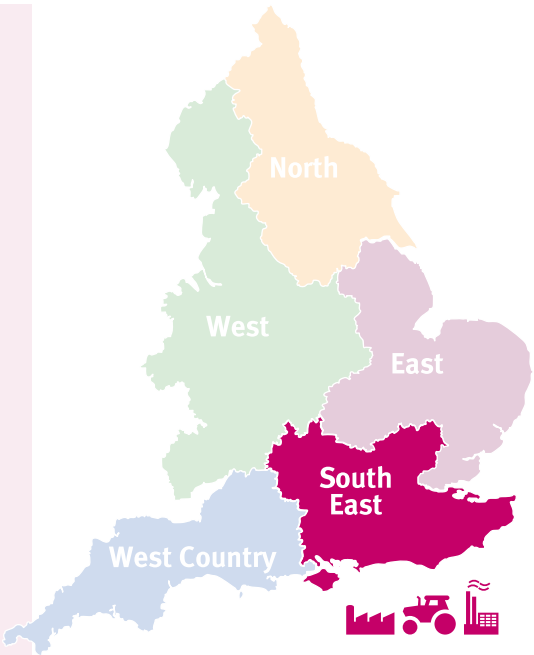
Water Resources South East

Additional public water supply needs between 2030 and 2055: 2,034 Ml/d including

- Drought resilience: **377 Ml/d**
- Population change: **424 Ml/d**
- Environmental improvement: **1,350 Ml/d**
- Climate Change: **161 Ml/d**

Estimated total demand from other users: 150 Ml/d

- **23%** industry (food and drink, chemicals, mineral products)
- **35%** agriculture (spray irrigation)
- **31%** power generation



Addressing the deficit

The Framework is enabling a package of solutions to be identified, assessed and included in plans. A huge effort is needed to deliver the actions.

The deficit identified for public water supply (PWS) without continued and enhanced action is around 5,000 Ml/d by 2055. Additional pressure will result from other sectors of use, particularly from the energy, food and data centre sectors. Non PWS sectors alone will account for an additional demand of 1090 Ml/d by the 2050s, much of which could be sought to be met by direct abstraction from the environment rather than from public supplies.

The scale of the deficit for public water supply has evolved since the 2020 National Framework because of new information on population growth, climate change predictions, improved assessments of actions to meet environmental needs and a direction to water companies not to include potentially damaging drought measures in their plans.

A range of actions to address the deficit are now included in the latest round of water company water resources management plans. The diagram below groups these measures into categories and shows the scale of action needed.

The full range of actions on demand management is dependent on government policies being implemented and continued and sustained effort in this area.

This delivery is required urgently as it is planned that demand management measures provide the water required to meet increasing demand, many years before large strategic resource solutions become operational.

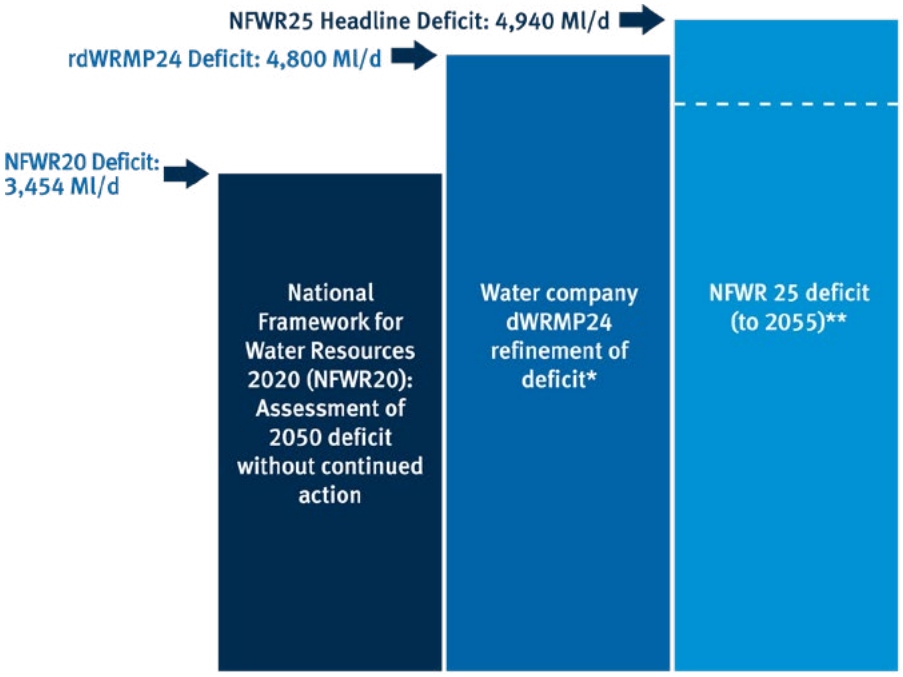
Major and sustained effort is needed on resource development. A significant development following the publication of the first National Framework was the establishment of the Regulators' Alliance for Progressing Infrastructure Development (RAPID). RAPID is crucial in assessing the large range of strategic options now included in water company plans and is also looking at streamlining pathways to ensure delivery.

Water company water resources management plans now contain solutions, many of which are being supported by Ofwat's latest periodic review determination. This includes £8 billion of investment to progress with actions to reduce demand plus actions which will pave the way for 10 new reservoirs, 1 reservoir enlargement, 9 water transfer schemes, 2 desalination schemes and 1 minewater treatment scheme.

Additional new options are being identified and explored to enable adaptive planning.

Evolution of PWS Deficit

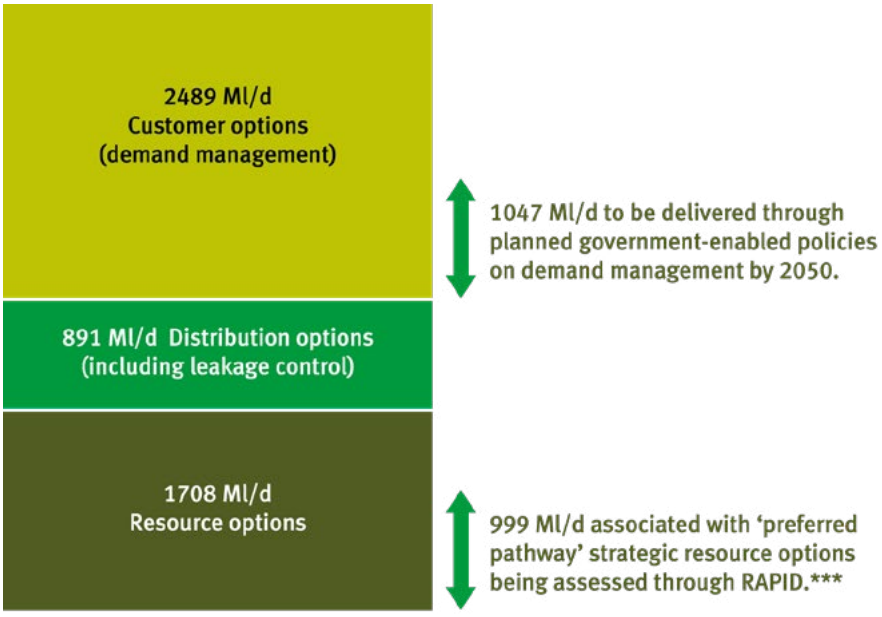
Figure 4 - Evolution of PWS deficit and proposed solutions



* From updated demand forecasts, updated assessments of how far water company actions will meet environmental requirements, and better representation of the baseline supply position without environmentally damaging drought measures included as the norm.

** From updated assessments of environmental need, new climate change predictions and greater ambition in final water resources management plans.

Solutions by 2050 (Main option types in revised draft WRMP24 plans#)



From a summary of England's revised draft regional and water resources management plans - GOV.UK

*** From revised draft water resources management plans (rdWRMPs), excluding transfers which support additional deployable output, and excluding options which do not deliver before 2050. The full range of schemes being assessed will deliver supply capacity of up to 2,814 Ml/d.

Water for the environment

The environment underpins society and is fundamental to all aspects of life. We seek to protect and enhance the environment. Ensuring there is sufficient water for the environment and nature is essential.

The "Environmental Destination" defines the total water resources needs to meet current and future environmental requirements for nature. It includes both legal requirements and government commitments.

To support this, the environmental destination was developed as part of the first National Framework, and it has been refined further for this iteration.

The environmental destination for water resources identifies where, and by how much, water abstraction needs to change to achieve and maintain a healthy water environment, both now and in the future. It provides a high-level indication of need. It reflects the actions already included in water company water resources management plans.

The environmental destination is based on national modelling and does not include analysis that might have been undertaken for local site-based requirements and has not been adjusted to reflect any future "overriding public interest" decisions.

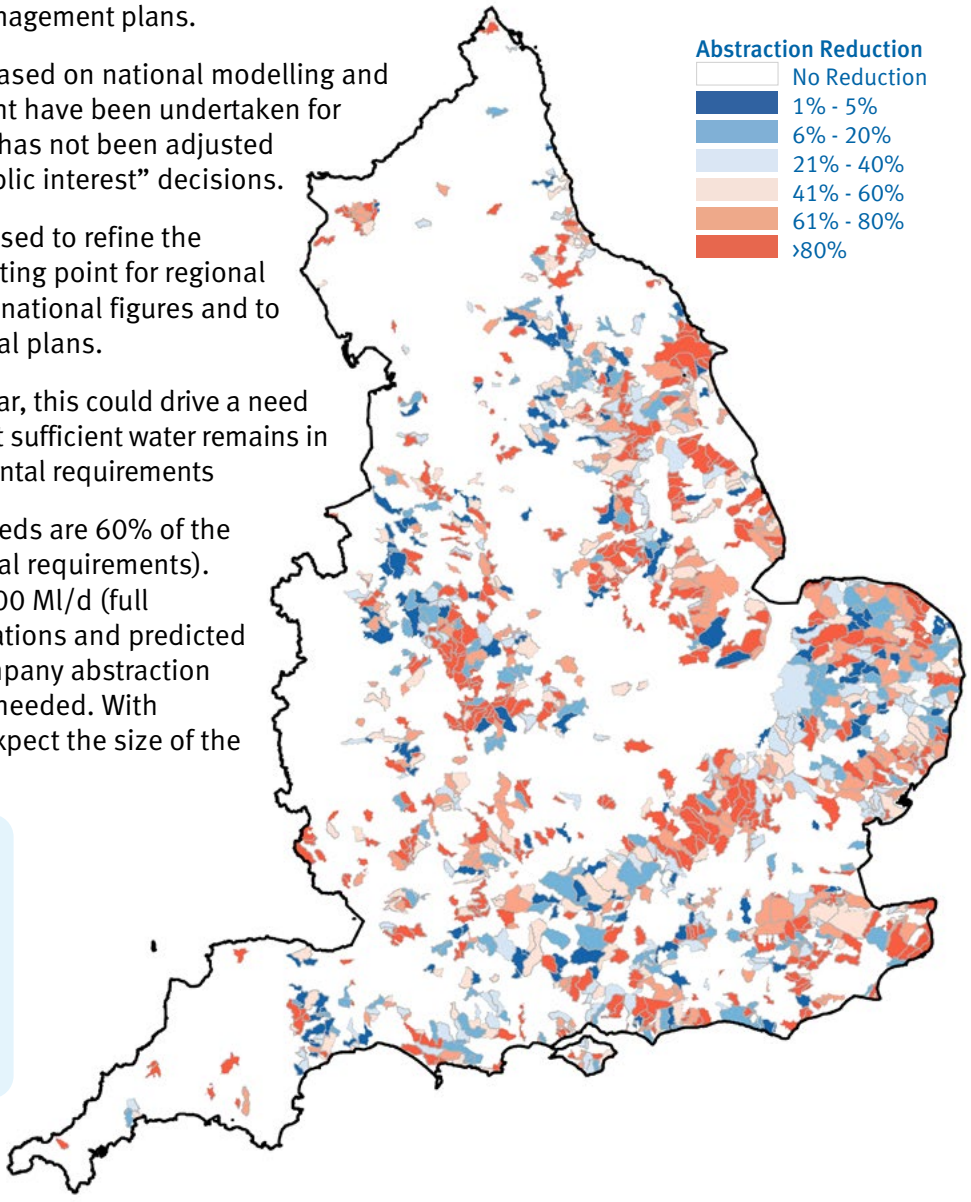
It allows for better evidence to be used to refine the assessments locally and is the starting point for regional water resources groups to take the national figures and to refine them as they develop regional plans.

For public water supplies in particular, this could drive a need for additional options to ensure that sufficient water remains in the environment to meet environmental requirements

Today's baseline environmental needs are 60% of the challenge - 3,200 Ml/d (current legal requirements). By the 2050s this might rise to 5,400 Ml/d (full government environmental expectations and predicted climate change). Of this, water company abstraction accounts for 90% of the reduction needed. With actions included in WRMP24, we expect the size of the challenge to reduce to 2,700 Ml/d.

The Environmental Destination for water resources identifies where, and by how much, water abstraction needs to change to achieve and maintain a healthy water environment, both now and in the future.

Figure 5 - Potential abstraction reductions by 2050 (without consideration of water company actions to reduce pressure)



Environmentally sustainable abstraction

Where changes are needed to ensure that abstraction is environmentally sustainable, we will act with confidence to put timely solutions in place. We will seek to do this in conjunction with abstractors and stakeholders.


River Kennet

It could be interpreted that addressing unsustainable abstraction would require changes to all licences in a catchment as the solution. This is not the case. Many licences will already be sustainable because they include conditions to protect flows/levels.

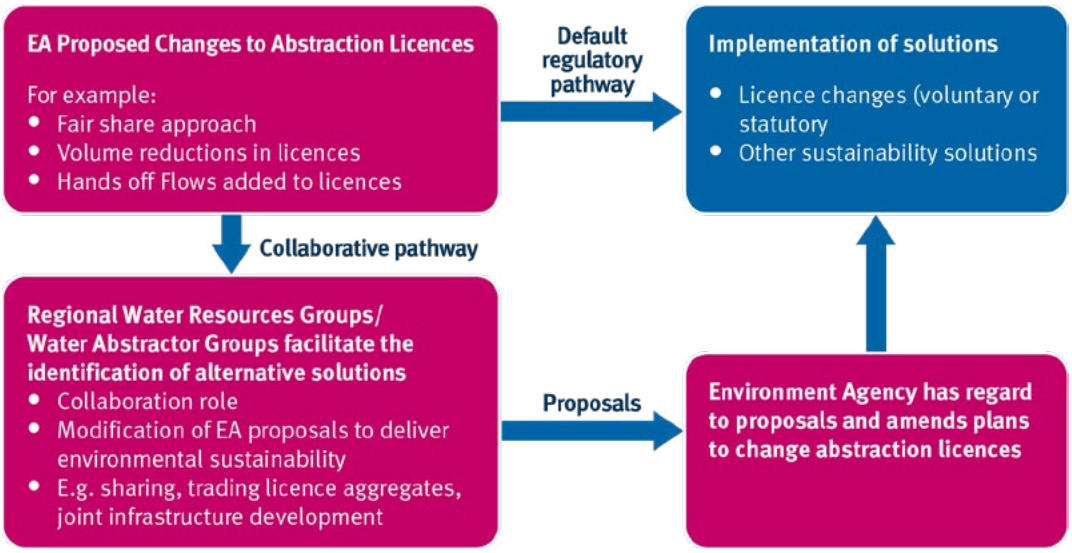
Where there are sustainability issues, we will encourage regional water resources groups and water abstractor groups (across all sectors) to work collaboratively with abstractors to identify alternative solutions which may reduce or remove the need for the regulatory route for change.

Where changes to abstraction licences are required, we aim to work with licence holders to allow for adaptation measures to be put in place. We will either look to give notice ahead of making changes to licences and/or will build in the date of the change taking effect into the licence itself. This may not be possible in every case; sometimes the changes will be driven by a legal timeline, particularly where there may be a need to act quickly to prevent environmental damage, or to remove a risk of damage.

We plan to take a prioritised approach, focusing on those catchments with the greatest pressure on water resources and the environment, and we will work with sectors to seek their advice on what is a reasonable period of notice for changes to licences.

Achieving Sustainable Abstraction

Figure 6 - Achieving sustainable abstraction



The need for resource development

There is a need for significant strategic and local resource development to provide new supply options to help to meet future needs across all sectors of use and to enable growth. This development needs to keep on track and be delivered at pace to protect resilience.

The forecast deficit over the next decades demonstrates that a range of options need to be developed and delivered for a secure, resilient, sustainable supply of water to support a growing population and economy and protect the environment. The water industry needs to consider innovative and flexible options, including multi sector solutions, that can adapt to a changing and challenging future.

Water companies must continue to take a twin-track approach, delivering new supplies and reducing water demand. They must act to reduce how much water is lost through leakage and drive more efficient water use by households and businesses.

In tandem, they must develop new supply options such as water recycling, desalination and new reservoirs.

There needs to be greater join-up of options between sectors of use, particularly the water industry and the energy sector, but also greater consideration of how strategic solutions can provide opportunities for other sectors of use such as agriculture.

We expect further consideration of how options can be developed to take account of the range of water quality needs for different purposes. Not every activity needs high-quality drinking water for its use.

Over 2,800 Ml/d of strategic solutions are currently being assessed through the Regulators' Alliance for Progressing Infrastructure Development (RAPID).

It is vital that new resource development is delivered. Effective reporting is required to monitor the successful delivery of options that will secure the water needed to bridge the predicted deficits. This will be important to hold the industry to account for any non-delivery, flag risks to timescales and help address risks.

To ensure resilience and the ability to have plans that can be adaptive to change, additional new resource development options need to be identified and assessed, whether on a strategic or local scale. These are likely to include greater consideration of drainage water, water recycling, sharing water rights and shared infrastructure development.


Desalination plant


Water supply pumping station

Solutions in the RAPID programme

Figure 7 - RAPID options

- Cheddar 2 reservoir and transfer
- Broad Oak reservoir
- Fens reservoir
- Lincolnshire reservoir
- Mendip Quarry reservoir
- New Arlington reservoir
- North Suffolk reservoir
- Rudyard reservoir and transfer
- South East Strategic reservoir Option
- West Midlands raw water storage reservoir

- Bacton desalination
- Mablethorpe desalination

- London water recycling (Teddington DRA and Beckton)
- Hampshire transfer and water recycling
- Minworth water recycling
- Poole water recycling and transfer
- Severn Trent sources and transfer

- Grand Union Canal transfer
- Kielder SRO transfer
- Lower Thames to West London Reservoirs transfer
- Peterborough to Grafham transfer
- Severn to Thames transfer
- South Yorkshire sources and transfer
- Thames to Affinity transfer
- Thames to Southern transfer
- North West source and transfer

- Nottinghamshire mine water treatment and transfer

- Aylesford and Ford water recycling
- Sandown water recycling
- Colchester water recycling
- Lowestoft water recycling
- Sittingbourne water recycling

The need for demand management

Effective demand management is paramount if we are to enjoy secure water supplies, protect the environment and enable growth. It needs continued and sustained effort, particularly in the period before additional resources come online. The right levels of funding, policy development and legislation need to be put in place to enable and ensure delivery. Without this, we risk insecure supplies until new resource options come online, many of which are over a decade away.

We expect companies to reduce leakage. The water companies have collectively committed to reduce leakage by 50% by 2050. This will play an important part in reducing demand and helping ensure a secure supply balance in the future.

It is vital that water companies deliver against this commitment, and that in doing so, they embrace new technologies, such as the use of artificial intelligence to help detect leaks.

Smart metering programmes will be vital to drive behaviour change, enabling tariffs to be introduced which provide the right pricing signals whilst also protecting the vulnerable.

Smart metering will also help to reveal and help enable customers and water companies to address wastage through plumbing losses in homes, businesses and in industry.

We expect to see widespread deployment of smart metering. Water companies will need to ensure that infrastructure is in place to enable the full benefits of smart meters, including making consumption data available to customers to inform water use choices.

The Government's launch of the mandatory water efficiency label scheme for domestic water products and its commitment to review building regulations and consider minimum standards for water efficiency of products are important steps to enable consumers to make water efficient choices and to drive behavioural change.

Ofwat has established its Water Efficiency Fund of £100 million to support the innovation and collaborative work needed by water companies to meet water demand targets. We expect companies to engage with the Fund to develop and implement demand management strategies and to innovate.

A much stronger link with local development planning is needed including an enhanced demand management framework that allows further interventions in specific places. This should be considered where either growth is higher than forecast, delivery falls behind schedule, or environmental sensitivities prove to be more acute than previously thought. This could include water credit schemes, retrofitting programmes, prioritised smart meter installations and higher water efficiency standards in new buildings.

Monitoring and tracking the progress made on demand management will be essential to ensuring the appropriate pace of delivery and for companies to adapt and take alternative actions if assumed demand savings are not realised.

Timely delivery of actions is vital

To ensure resilience, urgent action is needed, delivery needs to be monitored, and plans need to be adaptive to change.

Our headline assessment of the potential scale of the public water supply deficit (4,940 Ml/d) reflects the overall scale of challenge, excluding the actions contained in water company water resources management plans (WRMPs).

WRMPs set out the actions that will be needed to resolve that deficit. They include a range of resource development, demand management and leakage control measures.

The timing of resource development means that we will be heavily reliant on demand management until strategic schemes come online.

Even when Strategic Resource Options come online, demand management will still be the major component of solutions throughout the whole of the planning period.

Delivery of demand management measures is reliant on upscaled government policies being implemented and sustained as well as timely delivery of actions by water companies.

Figure 8 - Supply side option benefits graph

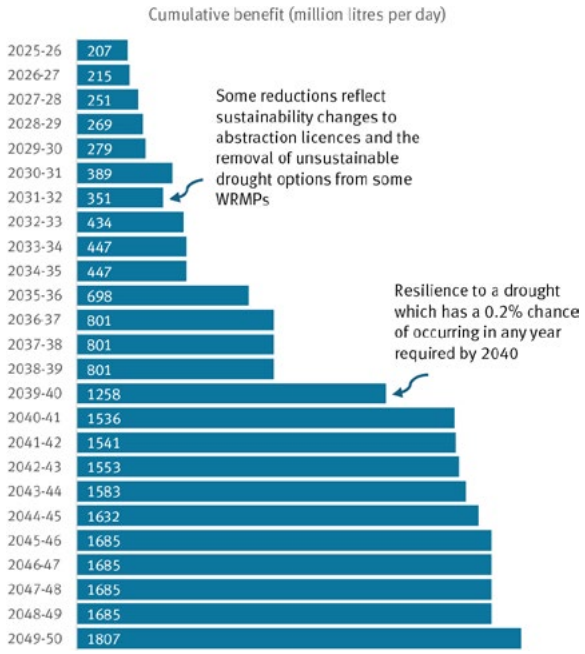


Figure 9 - Demand management and leakage options as a percent of total

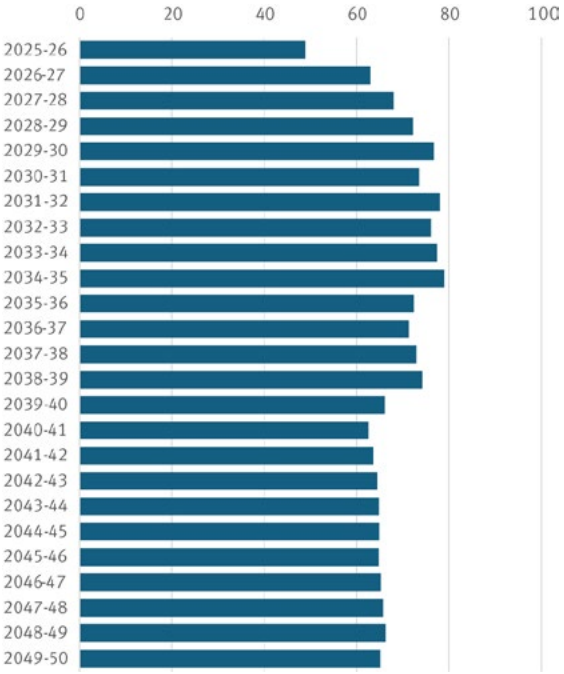
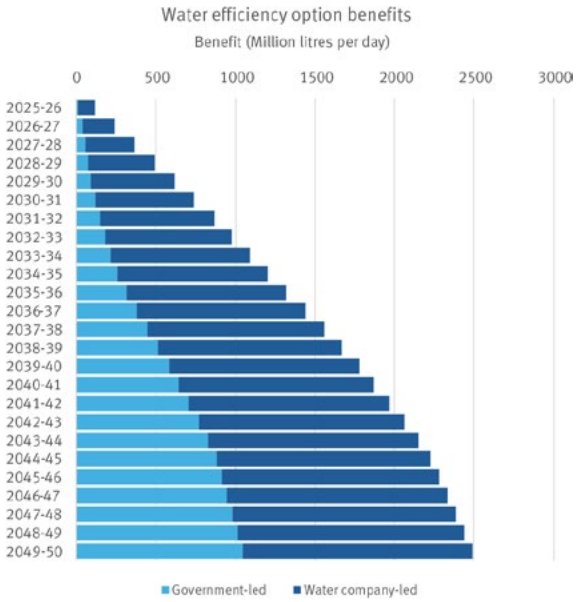


Figure 10 - Water efficiency options management



Water for energy

Water is vital for use in the production of energy, and energy is vital to support growth and economic security. The energy sector is forecast to have significant and increasing demand for water in the future.

The Department for Energy Security and Net Zero has identified that an increase of 40-60% in the demand for electricity is predicted by 2035. Coupled with a target to reach net zero greenhouse gas emissions from energy production in Great Britain by 2030 and all sectors of the economy in the UK by 2050, we expect to see demand for low carbon energy generation increase significantly from all sectors over the coming decades with an associated increased demand for water.

Work carried out for the Environment Agency estimates that the water needs for Carbon Capture and Storage and hydrogen production alone will amount to 767 Ml/d by 2050.

Engagement with the sector has demonstrated that there is a need for a better understanding of where water is available so that it is not a barrier to progression.

The energy sector should:

- continue to engage with regional water resources planning groups and water companies on the sector's water needs
- identify and evaluate suitable options to meet future water demand
- where relevant, develop joint proposals for additional resources in conjunction with other sectors
- improve its long-term planning for expected future water needs
- take account of water needs and availability in the design and siting of plants
- continue to improve its water efficiency in production methods.

We also commissioned a project on Enabling Collaborative Planning. The project was designed to identify existing opportunities and future potential routes to join up planning to meet the water needs of the energy sector, and to provide realistic options and recommendations of how to overcome these barriers.

Overall, 39 solutions were identified to help dismantle and remove barriers to effective collaboration between the energy and water sectors. The Environment Agency is working with stakeholders to develop an action plan of prioritised solutions for implementation and a delivery plan for the years ahead.

Water for food

Secure and reliable water supplies are vital for food production, food security and supporting the economy. We will continue to help farmers and growers improve their water supply resilience, including adapting to the risks from climate change and potential sustainability reductions.

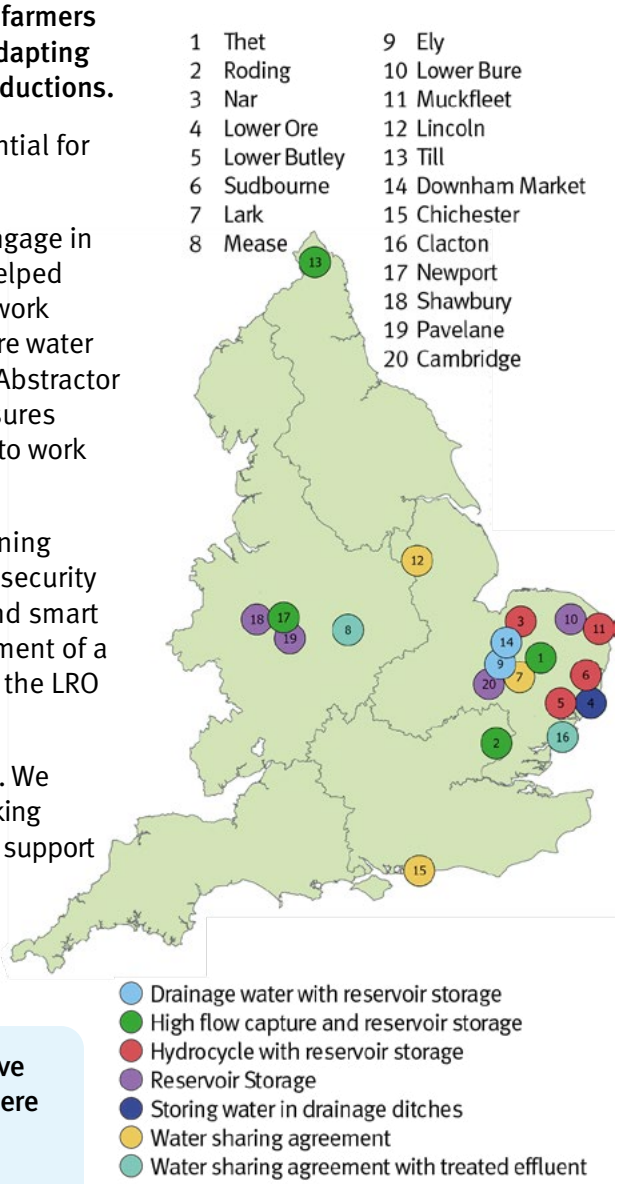
The UK Food Security Report has highlighted that water is essential for agriculture, with use for both irrigation and livestock.

We are working to ensure that the sector can more effectively engage in water resources planning at all geographical scales. We have helped to strengthen its voice in the governance of the National Framework and on Regional Groups, for example through funding agriculture water resources roles. We are supporting the establishment of Water Abstractor Groups (WAGs) to enable a better understanding of future pressures and of business risks around access to water and will continue to work collaboratively to help identify and implement solutions.

We want to progress further Local Resource Option (LRO) screening studies which have identified options to improve water supply security including multi-ownership reservoirs, sharing of water rights and smart farming initiatives as well as helping to facilitate the establishment of a number of new Water Abstractor Groups. We will work to widen the LRO approach, so it is applicable to other sectors of use.

We want to create a pathway for the delivery of identified solutions. We will continue to explore policy barriers to delivery and are also working with government departments to advise on the continued need for support packages to help with the implementation of LRO solutions. One example is the Defra Water Management Grant scheme which provides support for the development of farm storage reservoirs and water efficient irrigation equipment.

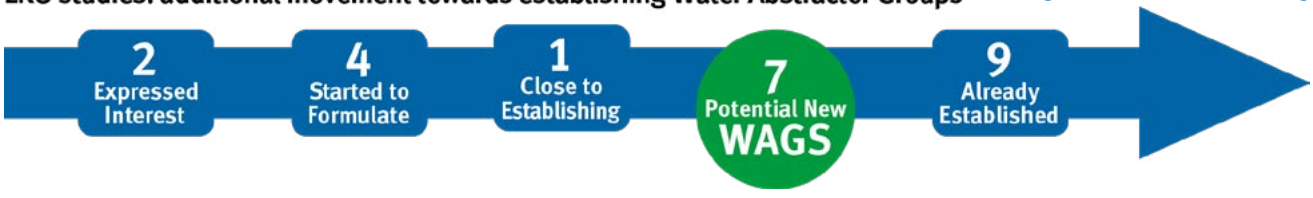
Figure 11 - LRO screening studies 2024/5



We want the sector to do more to manage demand and to improve its water efficiency including moving towards smart farming, where technology is used to:

- **Understand near-real time water availability.**
- **Improve irrigation scheduling.**
- **Ensure that water abstracted and stored is being distributed and used efficiently.**

Figure 12 - Water abstractor groups



Water for the wider economy

Water is vital for growth across the economy. Without a resilient and sustainable supply of water, a range of industries and businesses will not be able to expand or grow. Operations, supply chains and production are increasingly likely to be affected as water becomes scarcer.

Water for Navigation

The navigation sector is a major user of water and has a unique place in water resources planning. The Canal and River Trust is the dominant user of water in this sector but is not the only navigation body. The Trust is a supplier of water to third parties from its canals and it is a conveyor of water in current and proposed and potential future transfer schemes to support public water supplies.

Given its role in supporting national critical infrastructure for water (and potentially for energy), and that its size of operation is comparable to a medium-sized water company, we expect the Trust to have robust water resources plans and drought management plans in place which have similar levels of public transparency, consultation and scrutiny as the plans of water companies.

Data centre

Water for Chemicals

The chemical industry is responsible for providing products which are critical to a wide variety of business operations. Water is essential to the chemical sector for a variety of uses, not just as a raw material but also for cooling processes, environmental protection and to prevent major safety incidents.

Growth in the chemical sector would lead to an increased demand for water. Businesses should therefore consider how their demand for water is likely to change in the future and plan for how their needs can be met. They should work to identify options to address any supply deficits.

Water for Data Centres and AI

Data centres are fundamental to growth, industry and society. Data centres store information ranging from medical records to photos on your phone. They also support many online services, from Artificial Intelligence (AI) to managing email and messaging. Data centres can require a large amount of water for cooling processes and there is the potential for a new large demand as more data centres are built.

Water availability needs to be considered when data centres are being planned, and consideration given to the water requirements of the cooling technology selected as well as where the data centre is being located. Data centres should look to other supplies of water beyond using Public Water Supply, for example using recycled water.

We want to continue to work with stakeholders to see how water resources planning for data centres can be improved. We are currently working with key representative bodies to collect data from the sector to increase our understanding of their current and future water needs. Such data is vital for long term planning and further collaboration is needed.

Water for Health and Wellbeing

Water for health and wellbeing includes leisure uses for golf courses, horse racing and sports fields. This is an important sector of water use that supports a significant part of the economy and enhances people's mental and physical health.

We will continue to work with the leisure sector to increase awareness of the growing risks and pressures on water supplies. We also want to help with assessment of local options available to improve water supply resilience, particularly where this is associated with reducing reliance on the use of public water supplies.

We also want to work with the sector to help it continue to develop and adopt best practice in water resources management, improving demand management, irrigation scheduling and how smart data can optimise use.

Integrated water planning

We want to see more effective coordination and alignment of the various plans for water with greater collaboration and integration across plans where possible, without losing the necessary detailed assessments of best value options that each planning process brings. This will allow investment decisions to be based on their whole value to the water system.

Catchment planning

Catchment planning is crucial to manage pressures on water supplies, address unsustainable abstraction and protect the environment. Working together to adopt a catchment-based approach, local stakeholders can understand and mitigate risks, plan for future water needs, and implement joint solutions.

The interface between regional planning and catchment planning and delivery needs to be strong. We recognise that a flexible model may be required to allow for smaller groups, such as Water Abstractor Groups to be effective and work alongside catchment partnerships.

Spatial (development) planning

We need to embrace opportunities for better join up between spatial planning, for example, local authority plans, investment in water infrastructure and timely delivery. Increasing housing ambition and significant, uncertain growth in some non-household sectors may mean demand increases beyond the levels planned. It is crucial that current and future water resources needs and availability are fully considered at an early stage through local development planning. This will help inform where sustainable growth is planned, and new resources are developed. This will mean development can be planned, designed and built in a way that protects and enhances the environment whilst supporting sustainable development, including through increasing water and wastewater treatment services. It is vital that these are considered during the spatial planning process.

Drainage and wastewater management planning

We would like to see more partnership and collaboration between organisations especially where planning for water resources, wastewater and drainage can be brought together within water industry planning activities. We would like to see regional groups and water companies look at how pressures such as climate change, population increase, environmental needs and land use change impact on both clean and wastewater management. This will help water companies better coordinate and integrate their planning and investment activities.

Water level management

We recognise the importance of water level management and its interface with water resources planning. We want to work closely with organisations such as Internal Drainage Boards, and other flood Risk Management Authorities to look at how their role could evolve to support more effective water resources management, particularly in delivering local resource options.

Flood risk management planning

Elements of strategic flood risk management planning are common with water resources planning. They both help to:

- prepare the nation to be resilient to both flooding and drought by planning for a range of climate futures using an adaptive approach
- bring partners and infrastructure providers together to create climate resilient places by aligning investment plans and work programmes
- identify innovative solutions, for example nature-based solutions, and sustainable drainage, alongside integrated water management.

For future local flood risk management planning, we want to see a long-term catchment-based approach, considering all sources of flood risk, that identify opportunities to achieve multiple benefits for the environment.

Joint ambition for the National Framework, regional water resources groups and sectors

We want regional groups to build upon their existing achievements to deliver multi-sector planning and drive improvements to water supply resilience, water efficiency and demand management, cross sector engagement, and environmental protection.

Regional groups have made significant progress in their planning for resilient water supplies in England to 2050 and beyond.

Regional planning is helping to drive positive changes and explore the potential for developing and sharing supplies between sectors as well as a wider catchment management approach. Ambitious demand targets for water efficiency and drought resilience have been adopted by water companies and accompanied by large investment in strategic water supplies, such as new reservoirs, desalination schemes and water recycling options.

The National Framework ambition remains to further the collaborative approach so that it ensures an improved environment and the security of future water supplies across all sectors.

Regional water resources groups have been established to help contribute to resolving the national water resources challenge. We expect all sectors of water use to engage with the groups so that their effectiveness is maximised.

Alongside our high-level ambition to enable this to happen, we have identified expectations that fall under four key themes.

For the full set of expectations and their descriptions, please refer to our main report.

We recognise that some of the expectations, particularly relating to multi-sector activities, are subject to sustainable sources of funding being secured; something which has not yet been fully achieved.

While this remains the case, those activities should be done on a best endeavours basis.

Regional water resources planning - expectations

Long term water resources planning to enable growth

- Ensure the public water supply elements of regional plans are reflected in and aligned with WRMPs. (Essential)
- Forecast regional supply and demand over at least 25 years. (Essential)
- Should look ahead beyond 25 years to ensure long term water needs and option longevity are considered
- Provide preferred and additional adaptive solutions to public water supply deficits and proposed solutions to help address non-public water supply needs (Essential)
- For Public Water Supply, use methodologies that are aligned to the water resources planning guideline and are strategically compatible across regions, being fully consistent where possible. (Essential)

Strengthening multi-sector planning and resilience

- Take a multi-sector approach (Essential)
- Take account of immediate water resources resilience pressures facing water users in region and facilitate short term activity to help find solutions to these (Essential)
- Engage with stakeholders to enable them to be active participants in relevant decision-making processes. (Essential)
- Assess possible implications of government commitments with water resources implications such as those relating to net zero carbon targets and AI/data security. (Essential)
- Should work with other sector members to identify and present opportunities for water efficiency and demand management outside of public water supply within the region

Planning to protect and improve the environment and address environmentally unsustainable abstraction across catchments

- Have an environmental destination plan (Essential)
- Take a catchment approach (Essential)
- Comply with Strategic Environmental Assessment and Habitats Regulations Assessment legislation (Essential)
- Should coordinate and facilitate local uptake of nature-based solutions where they deliver value for water resources
- Should embrace and promote opportunities for a variety of market mechanisms such as third-party bidding systems for options and opportunities around funding for nature-based solutions.

Supporting an integrated approach to water management

- Should demonstrate leadership in an integrated approach to water management across catchments.
- Actively seek options that include wider benefits, such as resilience to floods and droughts, improvements to water quality, and resilience improvements to drainage and wastewater systems, in alignment with DWMPs. (Essential)
- Assess possible implications of government commitments with water resources implications such as those relating to net zero carbon targets and AI/data security. (Essential)
- Should work with other risk management authorities to ensure that long term adaptive planning for flooding and coastal change is better coordinated with the next and subsequent cycles of planning for water and wastewater investments.

The National Framework for Water Resources 2025

Water for growth, water for nature, water for a resilient future

Without a sufficient, sustainable and resilient supply of water neither the environment, society nor the economy can function. To have a future where nature, people and the economy can thrive and grow we need to continue and take further action to plan and deliver solutions and options to meet society's water needs. To do this we need:

- to recognise and reflect the fundamental role of water resources in planning and development
- to deliver demand management reductions now
- to deliver and maintain pace on the delivery of large infrastructure
- Regional Water Resource Groups to identify, co-ordinate and facilitate delivery of solutions
- to have greater collaborative water resources planning and delivery of solutions with other water using sectors
- to tackle current unsustainable abstraction issues now and commit to deliver the Environmental Destination
- to continue to innovate and develop new approaches to enhancing water resources.

This National Framework takes another step forward on the path to a sustainable and plentiful supply of water. We must continue to act and deliver solutions at pace so we have water for growth, water for nature, water for a resilient future.

Thursley Common
Surrey

Next steps

For a comprehensive description of the actions and next steps, please refer to the main document. Next steps include the following actions:

- As part of our strategic overview of water resources across all sectors of use, the Environment Agency will continue to assess the scale of the national challenge.
- Government will consider the policies and legal framework needed to respond to the pressures, so we are fit for the future, taking account of recommendations from the Independent Review of Water led by Sir Jon Cunliffe.
- The role of regional water resources groups is key in overcoming these challenges, particularly in identifying strategic options between water companies and embedding them in plans. We will continue to help enable regional water resources groups to develop multi-sector water resources plans and to facilitate the delivery of collaborative solutions.
- We will continue to upscale our engagement with other water using sectors to understand their needs and issues and facilitate early engagement with the water sector and Regional Groups.
- We will update our planning guideline for water company water resources plans and regional plans so that water companies and regional groups have clarity on expectations and timescales for producing plans.
- Regulators, particularly through RAPID, will help to evaluate proposed solutions and to help facilitate the identification of new options.
- We will support the enhancement of the local tier of water resources planning such as Water Abstractor Groups and Catchment Partnerships to better enable delivery and we will continue to work through the National Framework to enable more effective collaboration.
- The Environment Agency will promote water rights trading, water rights sharing, the capture and storage of high flows (where environmentally sustainable) and will consider how dynamic catchment management and the potential need to reserve water rights for critical infrastructure can be a feature of the regulatory process. We will continue to review abstraction permissions to ensure that they are environmentally sustainable and will provide Regional Groups and Water Abstractor Groups the opportunity to develop alternative proposals to the regulatory default pathway.

Photo credits

Pages 1 & 6	Julian Gazzard/ Shutterstock.com
Pages 1 & 6	Sevda Ercan/ Shutterstock.com
Page 1	industryviews/ Shutterstock.com
Page 1	SrideeStudio/ Shutterstock.com
Pages 1 & 24	Kris Kuzniar/ Shutterstock.com
Pages 1 & 24	Gorodenkoff/ Shutterstock.com
Pages 1 & 22	SuxxesPhoto/ Shutterstock.com
Pages 1 & 25	mrcmos/ Shutterstock.com
Page 9	ph.FAB/ Shutterstock.com
Page 10	chrisw1964/ Shutterstock.com
Page 14	VVVproduct/ Shutterstock.com
Pages 17 & 32	Tony Martin Long/ Shutterstock.com
Page 18	Roplant/ Shutterstock.com
Page 18	Hekla/ Shutterstock.com
Page 18	Roplant/ Shutterstock.com
Page 20	kaninw/ Shutterstock.com
Page 20	New Africa/ Shutterstock.com
Page 26	Ewelina W/ Shutterstock.com
Page 26	Greenbeat/ Shutterstock.com
Page 27	richardjohnson/ Shutterstock.com
Page 28	J Chapman/ Shutterstock.com
Page 30	Alex Manders/ Shutterstock.com
Page 31	Yuangeng Zhang/ Shutterstock.com

Environment Agency

The National Framework for Water Resources 2025

Water for growth, water for nature, water for a resilient future

Summary Document