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# Revised draft WRMP24 Non-Technical Summary

August 2023





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# Introduction

**We understand the challenges of water scarcity in our region. That's why we never stop looking for ways to invest in the future of water for our region.**

Our region is the driest area in England and over the past decade has had the highest level of population growth in the United Kingdom, so we must manage the water we have carefully. Our revised draft WRMP24, taking into account the feedback from our draft WRMP24, sets out how we will achieve this, taking a 25 year view over the period 2025 to 2050.

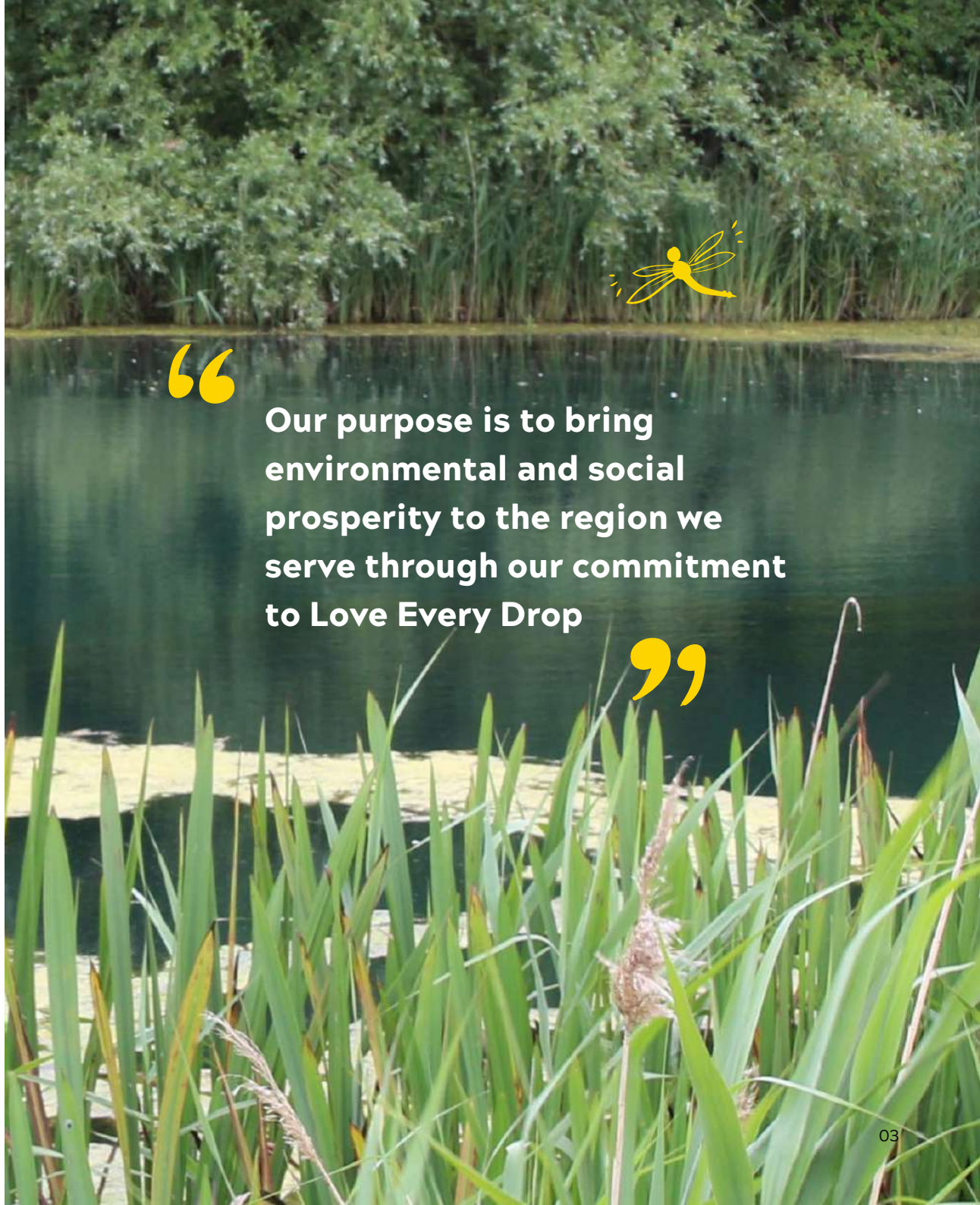
This long-term strategy will ensure we maintain a secure supply of water to our customers, whilst continuing to protect and enhance the environment around us. It will also deliver wider societal benefit to our customers, whilst keeping bills affordable. We believe this is our 'best value plan' for the region.

Detailed information on our WRMP24 can be found at [anglianwater.co.uk/wrmp](https://anglianwater.co.uk/wrmp)

## **Working with others**

We work with many organisations to achieve a best value plan. Two of these are the regional planning groups, Water Resources East (WRE) and Water Resources North (WReN).

These regional planning groups coordinate stakeholders that abstract water from the environment and produce a Regional Plan for managing water resources. You can find out more about these groups at [wre.org.uk](https://wre.org.uk) and [waterresourcesnorth.org](https://waterresourcesnorth.org)



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**Our purpose is to bring environmental and social prosperity to the region we serve through our commitment to Love Every Drop**

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# WRMP19

We adopted a twin track approach for WRMP19 (2020-2045), which examines demand management and increasing supply. Together these measures will ensure our customers have a resilient, safe supply of water. By 2025, this will have:

**Helped our customers save water**, and identified leaks quicker, by investing £31 million to roll out over 1 million smart meters by 2025.

**Built a strategic pipeline** to move water where it's needed.

**Delivered the best leakage track record in the country** (half the national average), repairing around 30,000 leaks every year, many within 24 hours.

**Restored 117 kilometres of chalk streams and sensitive rivers.** These are across Norfolk, Suffolk, South Lincolnshire and Bedfordshire.

**Improved the environment within Norfolk's Ant and Broads SSSI** by keeping more than 4 million additional litres of water where it's needed, ensuring unique features and species can flourish.



# Challenges we're tackling to protect our water supply



**The challenges we face for our region for the period 2025-50 are stark, and will mean significant water stress across much of our region. These challenges include the impacts of climate change, population growth and the need to protect the environment.**

## Climate change and drought resilience

We operate in the driest region in the UK, and are particularly vulnerable to climate change impacts. We use the latest climate change datasets to plan for future climate change, ensuring that we adapt to its impacts.

We also need to achieve enhanced drought resilience. In WRMP19, we planned to be resilient to a one in 200-year drought (a 0.5% risk of occurring within the next year). For WRMP24, we will be resilient for a one in 500-year drought (a 0.2% risk of occurring within the next year) by 2040. This will ensure we can maintain supplies to our customers during times where water is scarce. Our customers told us that moving to this 1 in 500 year drought resilience was a more acceptable level of risk.

## Population and economic growth

Our region is one of the fastest growing in the country. Growth projections exceed 175,000 new homes over the next five years – without factoring in the proposed Oxford-Cambridge Strategic Growth Corridor. By 2050 the region's population may grow by nearly one million people. Our non-household demand also continues to rise, reflecting the volatile socio-economic climate we are currently operating in.

## Environmental protection and improvement

We are committed to reducing the amount of water we abstract from sensitive environments, and need to balance this with sustainable alternative sources of supply.

This will be achieved by implementing licence caps to our abstraction licences, a process governed by the Environment Agency. This means we will take less water from sensitive groundwaters and surface waters, helping to protect the environment around us, mitigating the risk of deterioration.

We will also go beyond this statutory licence capping, focussing on how we can implement further abstraction changes so we can protect and improve the many internationally significant habitats in our region. This is our environmental destination.

Our environmental destination will be informed by scientific investigations commencing shortly and continuing to 2027, as part of our Water Industry National Environment Programme (WINEP). The results of the investigations will ensure a tailored response to our environment's needs, informing WRMP29.



**Our Get River Positive Commitments**

Discover more about our commitments, what they mean for our region's rivers, habitats and wildlife and how we can all work together to Get River Positive – [anglianwater.co.uk/get-river-positive](http://anglianwater.co.uk/get-river-positive)

## What will we be protecting?

### Chalk streams and rivers

The water in chalk streams and rivers comes from underground chalk aquifers and springs. This very pure water supports a wide variety of aquatic plants, invertebrates and fish in our region.

### Wetlands

The wetlands in the east of our region are internationally recognised and are home to rare wildlife. They also help us with flood management and carbon capture and storage.

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**Half of the water we abstract to provide homes and businesses comes from our rivers and streams. The other half of our supply is stored in underground reservoirs called aquifers. With increased demand for water, it's vital we all understand just how precious water is, only use what we really need and love every drop.**

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# Protecting our environment

In our region, we are fortunate to have important environmental features such as:

- Chalk streams and long reaches of rivers with special protections, such as the River Wensum and the River Nar.
- Special wetlands with protections.
- Sites of Special Scientific Interest (SSSI), Special Areas of Conservation (SACs), and Special Protection Areas (SPAs) which include environments such as marshes, meadows, fens, lakes and woods.
- Estuaries and coastal sites with special protections.

Our customers told us that achieving our environmental targets is crucial for the restoration of habitats. Our plan will help by reducing the amount of water we take from these sensitive environments, whilst enabling sustainable growth.

The Lincolnshire and Fens reservoirs will provide opportunities for **wetland creation** as well as **new habitats**.

They could also create an environment that will **enhance natural wildlife corridors**.



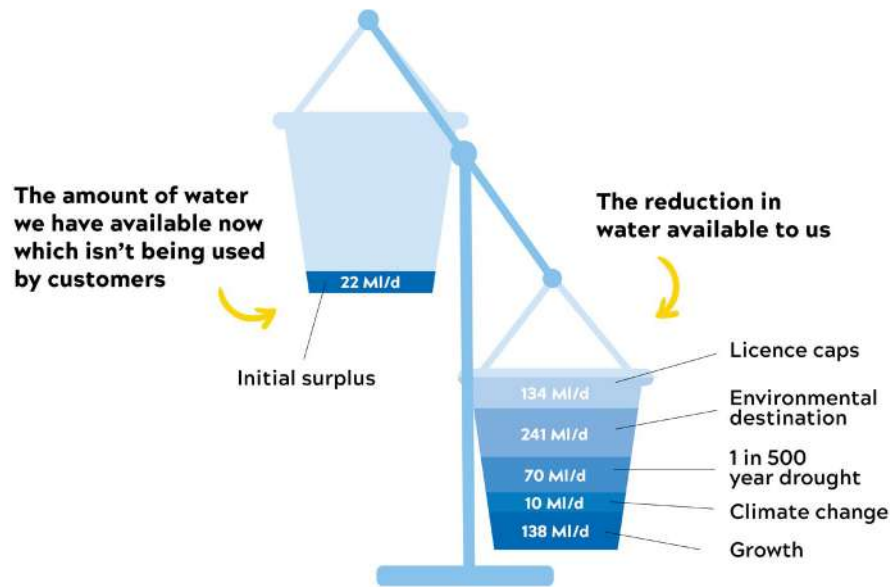
## Did you know?



The Broads National Park, Britain's largest protected wetland, is in our region. It is the only water-based National Park and is home to more than a quarter of Britain's rarest plants and animals. It is also home to a thriving community and welcomes many millions of visitors a year who enjoy the landscapes and waterways.

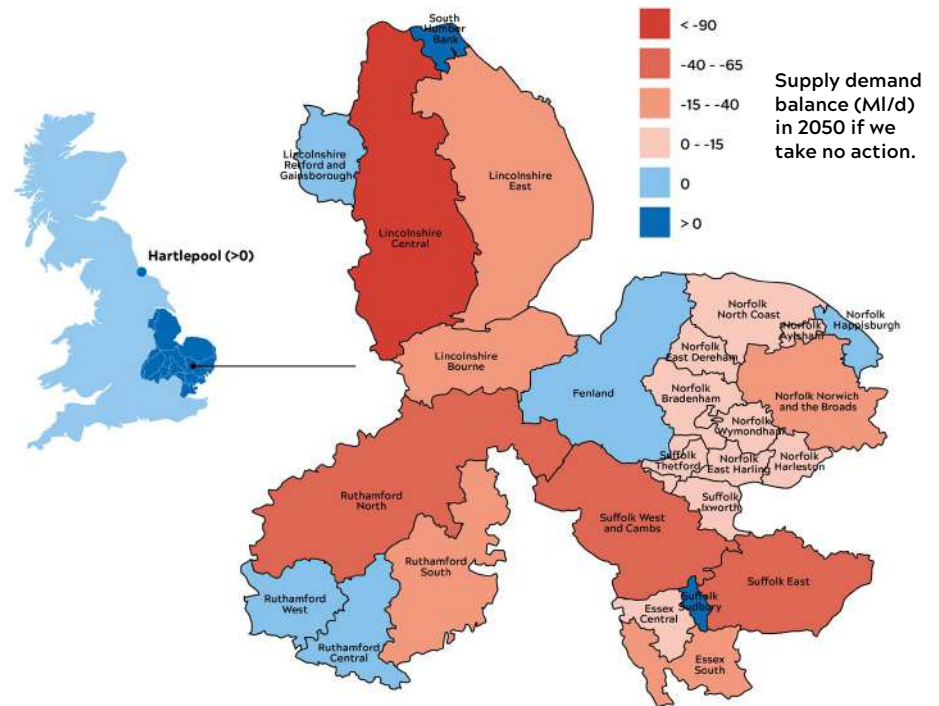
# The scale of the challenge

Our supply-demand balance is under significant pressure from population growth, climate change, sustainability reductions and the need to increase our resilience to severe drought. These challenges are acute in our region, which is characterised by low rainfall and is home to a significant proportion of wetland sites of conservation interest. The total impact to our supply-demand balance is 593 megalitres by 2050. We have broken this impact down, showing how each of the challenges contributes to us having a deficit of water.



## What is a Water Resource Zone?

The impacts of these challenges in 2050, and their overall effect on our water resource zones is shown on the map below. Water resource zones are how we plan our future water resources. Each zone has shared resources and all customers in it experience the same level of resilience.



## What is MI/d?

A MI is a megalitre, which is 1 million litres of water. This is enough to supply approximately 7,000 customers. MI/d represent the amount of megalitres we supply a day.

Our predicted total regional deficit by 2050 is **593 megalitres litres a day**

To respond to this significant need for new water, we have produced a best value plan.

# Achieving a best value plan



## What is a Best Value Plan?

The aim of a WRMP is to present a best value plan, both in the short and long term.

A key requirement of a WRMP is to ensure supply of wholesome drinking water for customers and protect and enhance the environment.

A WRMP will also consider factors alongside economic cost and seeks to achieve an outcome that increases the overall benefit to customers, the wider environment and society.

Our customers and stakeholders have helped to shape the goals they want us to achieve when developing our water resources management plan. These are the main outcomes we set out to deliver whilst meeting our long term challenges.



### Supply Meets Demand

Deliver a secure and wholesome supply of water to our customers, businesses and other sectors

Optimise our available resource by reducing leakage at our treatment works and in our network. We will also work with our customers to promote water efficiency

### Fair charges, fair returns

A plan that is affordable and sustainable over the long-term

### Flourishing environment

Deliver long-term environmental improvement by reducing our abstractions from sensitive areas and improving biodiversity

### Resilient business

Increase the resilience of our water systems by enhancing our drought resilience and having a diverse range of assets to withstand different challenges

### Positive impact on communities

A plan that supports the views of stakeholders and customers, and takes into account social wellbeing

### Investing for tomorrow

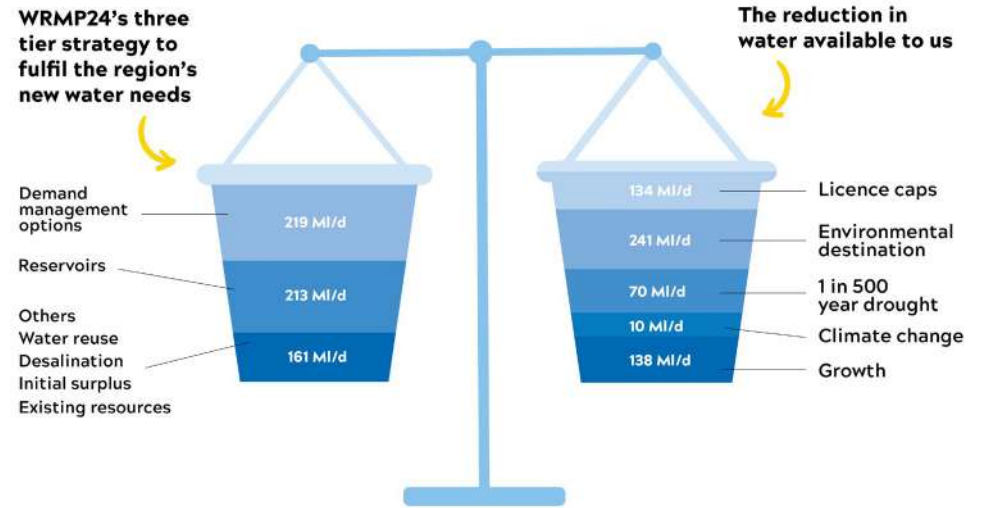
A plan which can adapt to unknown future challenges



# Our three-tiered strategy

Through our decision making processes, guided by the new water needs of our region and our customers' and stakeholders' views, we have developed a three-tiered strategy:

- 1 We will make the best use of our existing resources, building on our industry leading demand management and using any surplus water we have available.
- 2 The progression of the strategic resource options (SROs): the Fens and Lincolnshire reservoirs; these reservoirs will meet 36% of our new water needs, and provide the opportunity for many benefits identified in our best value plan framework.
- 3 We have planned for adaptive future resources. These allow us to remain flexible to changing circumstances, whilst ensuring we limit bill impacts to our customers by only investing in solutions that will be needed regardless of what the future holds.



This best value plan will ensure we meet the water needs of our region, whilst improving the environment around us and providing socio-economic and wellbeing benefits to individuals, communities and society.

We will now discuss each of the three strands of our best value plan.

# Making the best use of existing resources through smart metering



Over the next twenty five years, we will continue to build on our existing demand management strategy. This means we will be able to accommodate sustainable growth at a water resource zone and regional level, managing the risks of deterioration in the waterbodies in our region.

Our customers have told us we should focus on utilising the resources we already have so we are continuing to build on our leading demand management strategy. This is our integrated approach for WRMP24:

## Non-household demand management

As our region continues to prosper, non-household consumption increasing.

The efficient use of water in this sector is vital to the success of our demand management strategy.

We have developed a comprehensive demand management programme which combines insights from smart metering with tailored water efficiency packages, scaled according to the size of water consumption.

## Smart metering

We will finish our smart meter rollout by 2030, for both household and non-household customers.

Smart meters will help customers to understand their water usage better, and allow us to communicate more effectively with them. We will be able to aid our customers with understanding how their water usage compares to similar households, and what measures they could take to reduce their water usage.

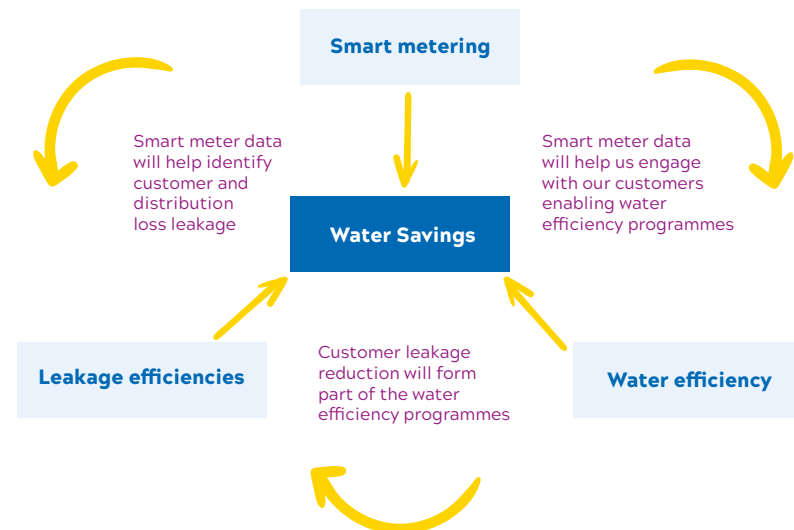
Customer supply pipe leakage and plumbing losses will be reduced, as smart meters will alert us to unusual flows into customers'

properties. Once we have alerted the customer, we forecast the average repair time will be reduced from 210 days (with a standard meter) to 59 days, saving significant volumes of water.

## Compulsory metering

We are in an area of serious water stress, so are constantly striving to reduce water demand. At present six percent of our customers choose to stay on an unmeasured charge rather than pay according to the amount of water they use. These unmeasured customers use, on average, an extra four and a half buckets of water a day.

We believe that all customers should pay on the basis of what they use. And the majority of our customers agree with this, believing it to be fair. This means we will introduce compulsory metering by 2030, so all of our customers pay on the basis of what they use. Where it isn't feasible to install a smart meter, customers will be billed based on an assessed charge. We will continue to help our vulnerable customers with the range of tariffs and assistance we have available.





# Making the best use of existing resources through promoting water efficiency and reducing leakage

## Water efficiency

We will continue to promote the reduction of water usage by:

- Providing a number of smart devices, such as shower sensors, so customers have more visibility of their water usage.
- Continuing to promote behavioural change campaigns that highlight how customers can be water efficient.
- Tailoring our communications to the local area, showing how their water usage can impact their local environment.
- Promoting Government-led intervention to implement water labelling so our customers are aware of how efficient their white goods are when purchasing.

## Leakage

In their responses to our draft WRMP24 consultation, our customers and stakeholders told us that reducing leakage is the right thing to do. We also believe this and have invested significantly to reduce our leakage rates over the last 20 years; we now lose approximately 25% less water through leaks than we did in 1998 despite connecting to over 500,000 new properties.

As part of WRMP24, we will continue to have one of the lowest leakage rates in the United Kingdom, aiming for a 38% reduction in leakage from our 2017/18 leakage rates. To achieve this we will initiate a major mains replacement programme from 2030 onwards, replacing over 8,000km of our mains; that's just over 20% of our network.



# Making the best use of existing resources through investment in supply-side options

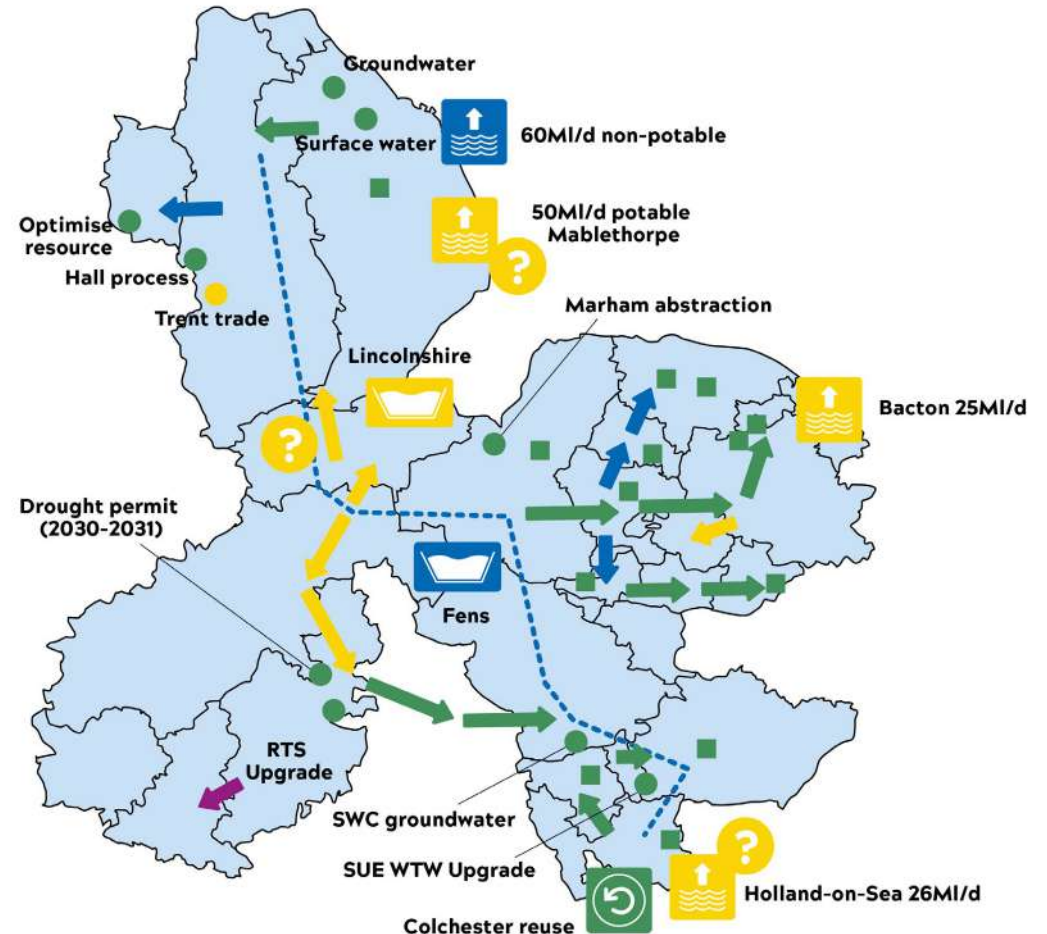
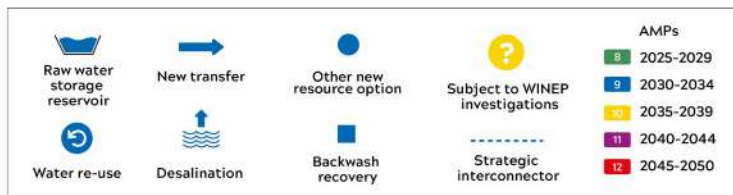
## What are transfers?

Transferring water is when we move water from areas where resources are superfluous to those that need it.

## What is water reuse?

Water reuse is where used water from the sewer network is treated and cleaned to a high standard before redirecting it to a watercourse or reservoir where it is mixed with other waters. When the treated water entering the river is of a high-quality, it may help improve the local environment. Eventually the water is re-abstracted and treated to the same high class drinking water standards we supply directly to taps today.

We will utilise existing supply-side options by upgrading water treatment works so we can utilise existing licences. Transfers will be constructed, allowing us to move water from areas of surplus to areas of deficit. This will build on our WRMP19 strategic pipeline. A water reuse plant will also be designed and constructed in Colchester; this will be in supply by 2032.





# Progressing our strategic resource options

To ensure a reliable supply of water for the future and no deterioration to our environment, we need to develop new supply-side options. These aim to store and provide the extra water we need for decades to come, so it is always on tap when our customers need it.

We already have limited sustainable water supplies above and below ground, and the abstraction reductions we are undertaking to protect the environment will further impact this. So, we have had to look at other supply-side options which are not reliant on our existing water sources.

**Our customers told us that they prefer reservoirs and water reuse, rather than desalination.**

Two of these new supply-side options are the Fens and Lincolnshire reservoirs. These reservoirs, both sized at 55 million cubic metres, are at the heart of our plan. They will provide a sustainable way of meeting our area's new water needs.

And, in the case of Fens Reservoir, will also help Cambridge Water (who we are jointly developing the reservoir with) reduce their groundwater abstractions.

## What are reservoirs?

Reservoirs are manmade or naturally occurring lakes used as a source of water. Water is taken from rivers when there is excess water over and above what the environment needs. This water is stored in reservoirs before being treated for use.

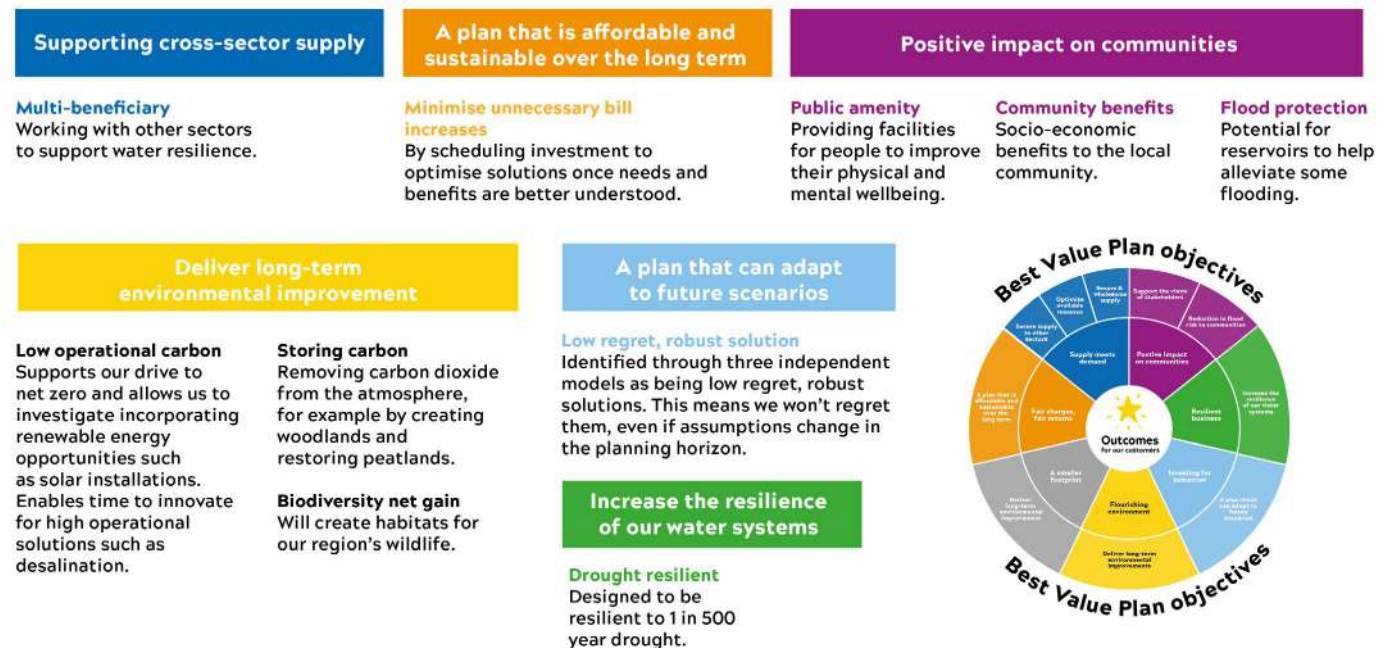
## Why do we need the Fens and Lincolnshire reservoirs?

Utilising our existing resource isn't enough to satisfy the region's new water needs; we need to develop alternative supplies of water.

Possible supply-side options have been considered and modelled at both a regional and company level. Our analysis of the results shows that, at both regional and company level, the Fens and Lincolnshire reservoirs are selected as investments that perform well under a wide range of scenarios (for instance different climate change predictions). This means we are unlikely to regret building them.

## What benefits do the reservoirs bring to the region?

The reservoirs perform better than other supply-side options on our best value plan objectives, for example delivering more benefits than a similar sized desalination plant. Some of these potential benefits are shown below.



# Planning for adaptive future resources

We know we will need desalination in the long-term future. Whilst we recognise the benefits of desalination, as it is scalable and not reliant on freshwater sources, it also has a higher operational carbon and bill impact than reservoirs, and fulfils fewer best value objectives. That's why it's really important we are confident in the amount of water desalination will need to provide.

We will achieve this confidence by conducting scientific investigations which will be commencing shortly and continuing to 2027, as part of WINEP. These investigations will determine the needs of our region's environments.

We will consider the results as we develop our WRMP29, tailoring our solutions to provide the biggest benefit to the environments that need most help.

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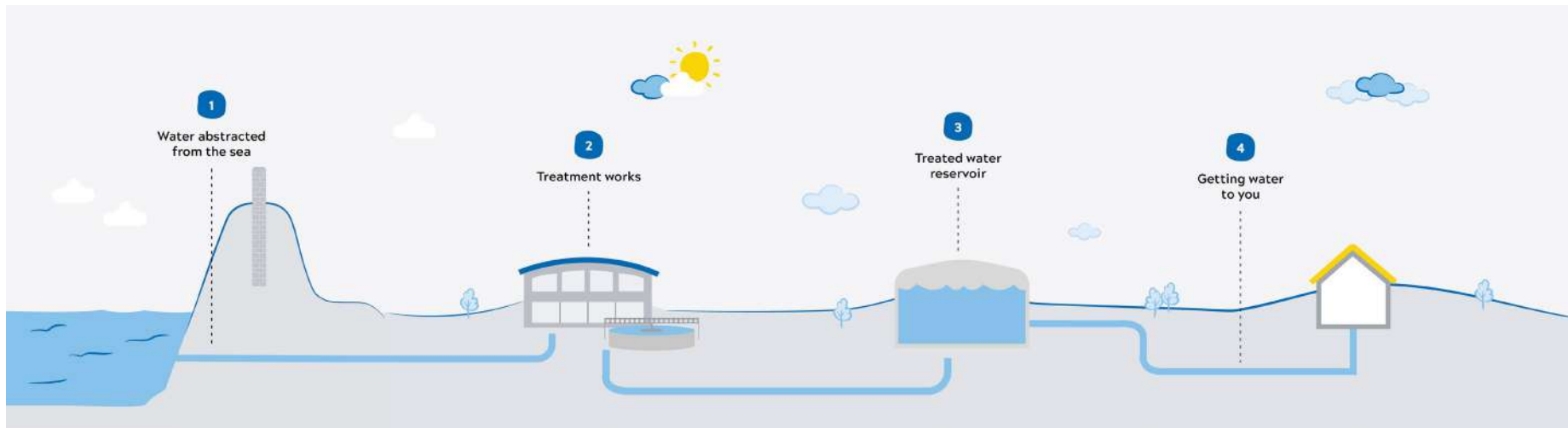
## What is desalination?

Desalination is taking sea or estuary (brackish) water and treating it to remove the salt and other impurities, before treating it further to drinking water standard. It is a common method for providing drinking water internationally.

## Why is our plan adaptable?

We want to ensure that we remain flexible if any new challenges arise. As we review our plan every five years, it means we can scale desalination so it is sized to meet the need.

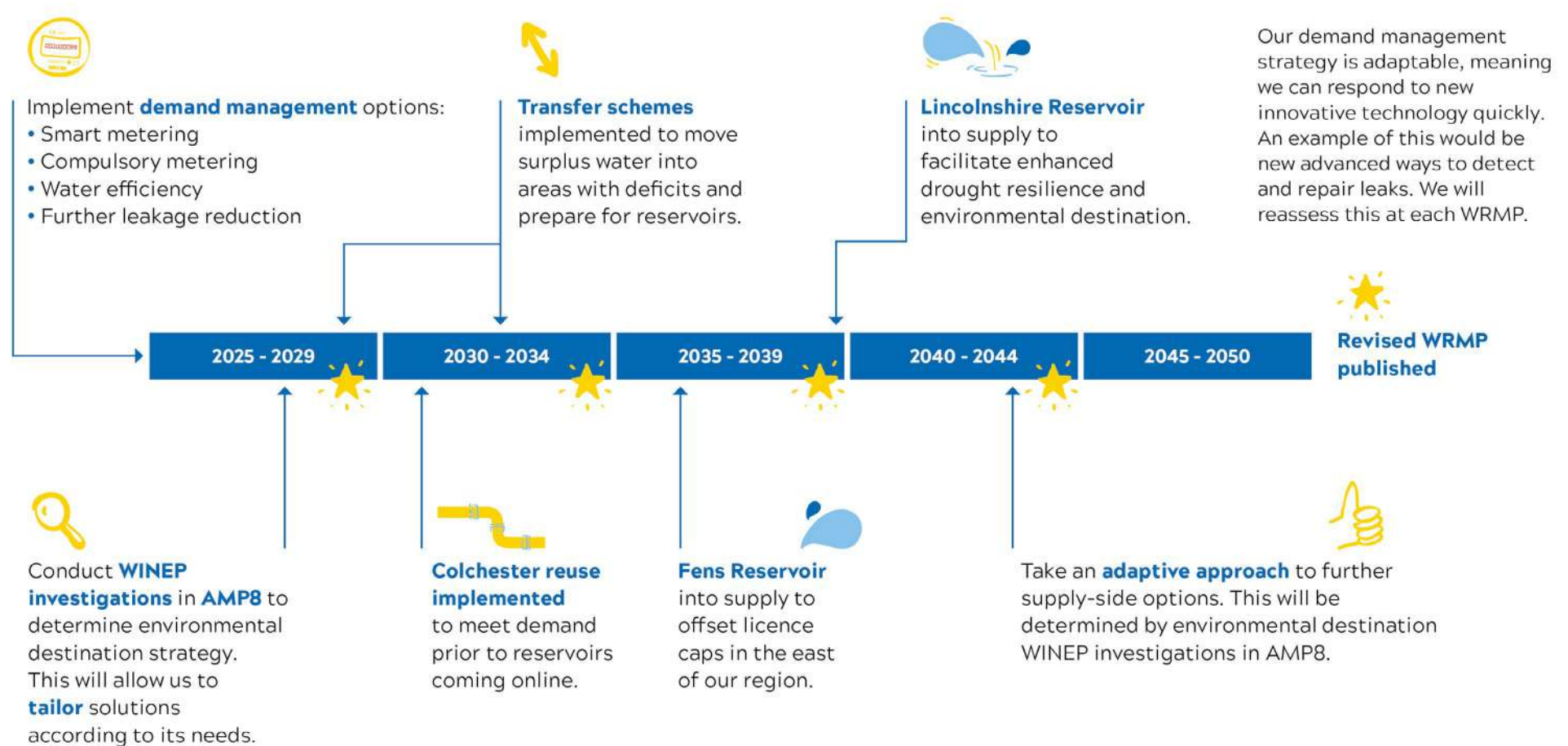
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# A summary of our WRMP24

Here is a summary timeline of when the proposed demand management and supply-side investment options are planned to be delivered between 2025-2050.



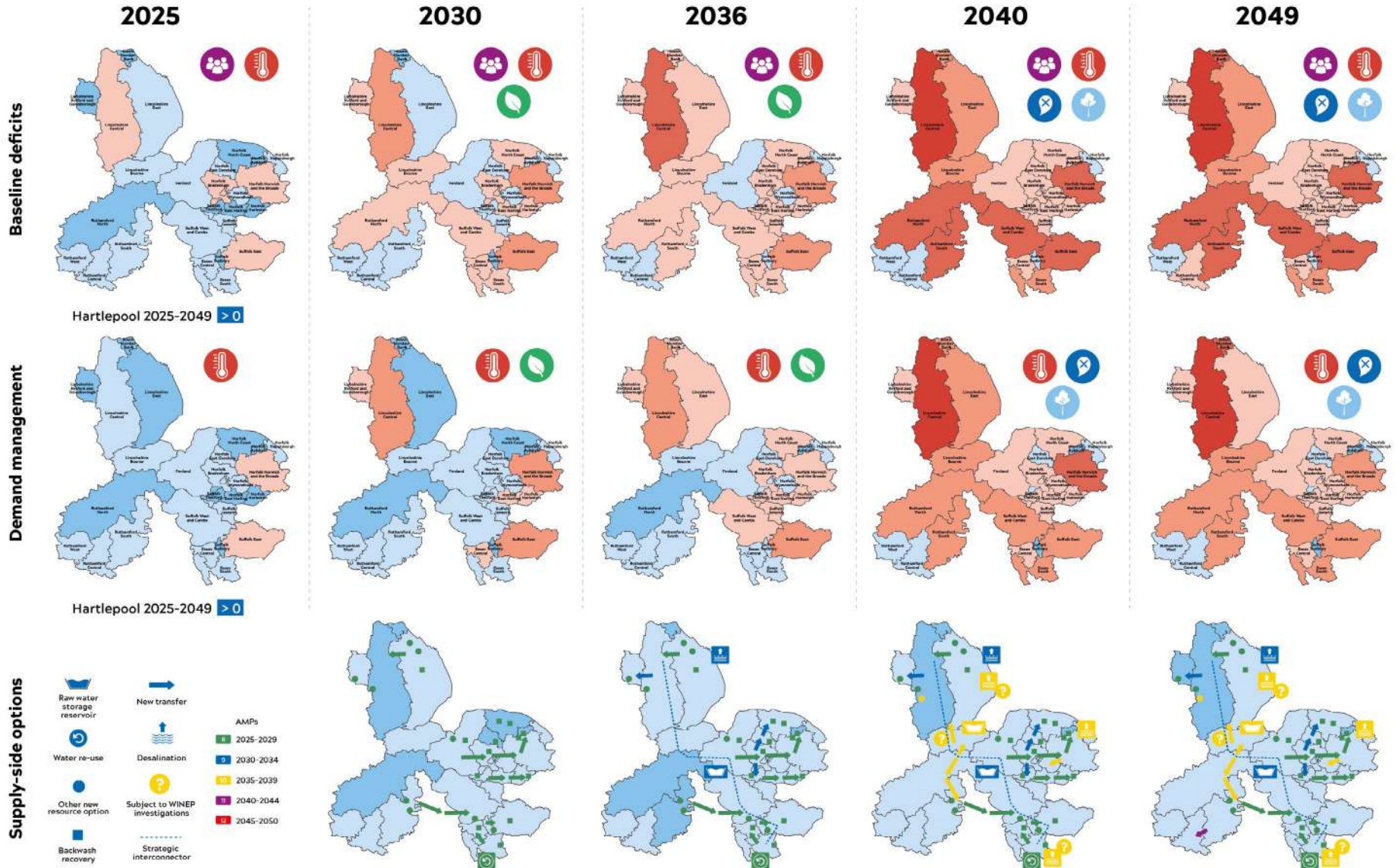
A summary of the needs of the plan, and the impacts of the three tiered strategy are shown on the next page.

# Plan for the future

Supply demand balance (MI/d)



- Population growth
- Drought resilience
- Licence caps
- Climate change
- Environmental destination





# Why this is a best value plan

We believe that our WRMP24 achieves our best value plan objectives, mainly driven by the benefits that the Fens and Lincolnshire reservoirs will provide to our customers, society and the environment.

<p><b>Supply meets demand</b></p>	<p><b>Fair charges, fair returns</b></p>	<p><b>Positive impact on communities</b></p>		
<p><b>Providing water 24/7</b> We will keep water flowing through taps, adapting to climate change and drought, whilst taking less water from the environment.</p>	<p><b>Using science to inform investment</b> Between 2025 and 2030, we will carry out investigations so we know what the environments in our area need. This will allow us to tailor our investments to ensure we invest where we need to, meaning best value for our customers.</p>	<p><b>Wellbeing</b> Our plan will give people the ability to enjoy nature through activities such as fishing, walking and cycling at our new reservoirs.</p>	<p><b>Community benefits</b> Our new reservoirs will provide socio-economic benefits to the local community, such as new jobs and tourism.</p>	<p><b>Helping vulnerable customers</b> We will support our customers rectify leaking pipes, identified through smart meters.</p>
<p><b>Flourishing environment</b></p>		<p><b>Investing for Tomorrow</b></p>	<p><b>Resilient Business</b></p>	
<p><b>Leaving water in the environment</b> We will leave more water in our rivers and watercourses, benefiting habitats, wildlife and precious chalk streams.</p>	<p><b>New habitats</b> Our reservoirs will establish new habitats for our region's wildlife.</p> <p><b>Biodiversity net gain</b> We will promote biodiversity by developing new habitats when we build new supply-side options.</p>	<p><b>No regrets investment</b> Our reservoirs will be needed whatever the future may hold.</p> <p><b>Investing for the future</b> We will explore innovative ways of managing demand.</p> <p><b>Able to respond quickly</b> Our plan is highly adaptive, allowing it to respond to future challenges.</p>	<p><b>Drought resilient</b> Our customers will have a safe, secure supply of water whenever they turn on the tap, even during an extreme drought.</p>	<p><b>Understanding water usage</b> Our smart meters will help us understand where our leaks are in our network and help our customers reduce their water usage.</p>

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