

APPENDICES to report on
feedback on draft Water Resources
Management Plan 2024 from the
WRAP (Water Resources Advisory
Panel)

August 2022



community
research

Bringing the voices of communities into the heart of organisations



1. Cambridge summary plan for household customers
2. Cambridge summary plan for business customers
3. South Staffs summary plan for household customers
4. South Staffs summary plan for business customers
5. Cambridge plan in more detail for household customers
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8. South Staffs plan in more detail for business customers
9. Cambridge Adaptive Plan
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1: Cambridge Water Plan Summary for household customers

Challenges

Not running out of drinking water (i.e. being resilient in periods of drought)

Protecting and restoring the water environment, e.g. rivers, streams and reservoirs

Current Situation

A drought would mean mobile water tanks and standpipes on streets for people to queue at for water, and/or bans on non-essential use. Currently, they plan for this to happen **once in every 200 years, or a 0.5% chance each year**

Only 16% of water environments in England are in good health. Cambridge Water takes water from the underground chalk aquifers to meet customer demand for water and these aquifers feed many of the chalk streams and rivers across the region. Although the amount of water Cambridge Water takes is within the limits set by the Environment Agency, the aquifers are well below the natural levels and in dry periods of low rainfall some streams can run low. It is estimated that the company needs to reduce the amount it takes from the aquifers by at least 30% before 2050 to help restore the rivers and streams

What Cambridge Water Wants to Achieve

By 2040, Cambridge Water wants to **reduce the chance of this happening to once in every 500 years, or a 0.2% in any given year**

In partnership with others, Cambridge Water will go further and undertake **detailed investigations of selected stretches of the water environment totalling 77km** to determine which are most at risk, with a focus on chalk streams. **The plan is to make investments to ensure these selected water environments most at risk of being damaged, have healthy levels of water flowing in them.** Under this approach not all of the 380km of waterways across the region will be offered the same level of increased protection

Achieving these ambitions means needing to save and/or find new sources of water. In total, 30 million litres per day by 2045 - enough to supply 94,000 homes.

How does Cambridge Water Plan to Achieve this?

Reducing water usage and wastage



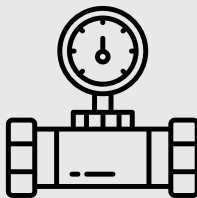
Reduce the amount of water each person uses at home **by 28%**, that's from **141 litres per day in 2021/22 to 110 litres per day by 2040**



Put plans in place to deliver a target in the Environment Act which involves water companies **reducing the amount of water businesses use by 9% by 2037**



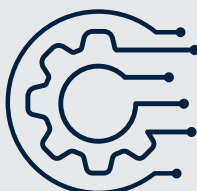
Reduce the water lost through leakage by 50% (from the levels in 2017/18) **by 2050**, saving **5.5 million litres per day**



All properties to have a new generation 'smarter' water meter that securely sends automatic meter reads by 2035. This will allow the company to provide customers with more information about when and where they use water. Currently 75% of households and 91% of businesses have a water meter, which are read twice a year. Households on low incomes and those with medical conditions that require a higher usage of water will continue to receive financial support. This will also allow Cambridge Water to bring in new tariffs to encourage households and businesses to save water



The UK Government is planning to launch a product **water labelling initiative from 2025**, aimed at encouraging consumers to buy appliances and fittings that use less water



Help develop **new water saving technology**, invest more in offering **free devices such as water butts** and **promote home water recycling and re-use systems** - and continue to offer incentives to developers to include more in new build properties

Finding new sources

A **new surface water storage reservoir** is to be built by a partnership of Anglian Water and Cambridge Water. This will provide **up to 43 million litres of water per day for Cambridge Water customers** when it starts operating in 2035

A **treatment works will also be constructed** and the water will be transferred by **new underground pipelines from the Fenlands area to the Cambridge region.**

A **new underground pipeline will also be built** to transfer water from Anglian Water's Grafham surface water reservoir into the Cambridge region. This transfer will provide **up to 15 million litres of water per day** when it starts operating in 2029.



To deliver the whole plan, it will cost every customer **£348.20 in total over the period 2025-2050 on average, an additional £13.90 a year**

2: Cambridge Water Plan Summary plan for business customers

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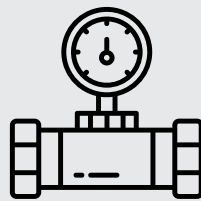
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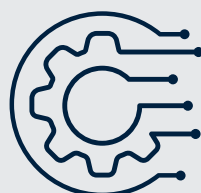
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To deliver the whole plan, business customer's bills will be...

**+14.2% more over the period
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3: South Staffs Water Plan Summary plan for household customers

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Only 16% of water environments in England are in good health. South Staffs Water takes water from the underground aquifers, reservoirs and the River Severn to meet customer demand for water. Although the amount of water South Staffs Water takes is within the limits set by the Environment Agency, the aquifers can be below the natural levels and in dry periods of low rainfall the rivers and reservoirs can be lower than normal. It is estimated that the company needs to reduce the amount it takes by at least 15% before 2050 to help restore some of these water environments

In partnership with others, South Staffs Water will go further to undertake **detailed investigations of selected stretches of the water environment to determine which are most at risk**. The plan is to then make **investments to ensure these selected water environments that are most at risk of being damaged across the region have healthy levels of water flowing in them**. Not all water environments in the region will be protected under this approach

Achieving these ambitions means needing to save and/or find new sources of water.
In total, 56 million litres per day by 2045 - enough to supply 175,000 homes.

How does South Staffs Water Plan to Achieve this?

Reducing water usage and wastage



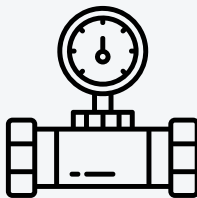
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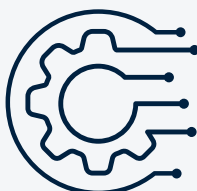
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Finding new sources

There has been no new large surface water reservoir built in the region for decades.

South Staffs Water plan to raise the height of the dam at the existing Blithfield Reservoir by 2m, providing up to an additional 16 million litres of water per day for South Staffs Water customers by 2045.

This new source would supply an additional 50,000 homes and meet growing demand.



To deliver the whole plan, it will cost every customer **£357.10 in total over the period 2025-2050 on average, an additional £14.28 a year**

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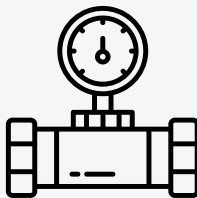
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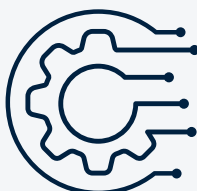
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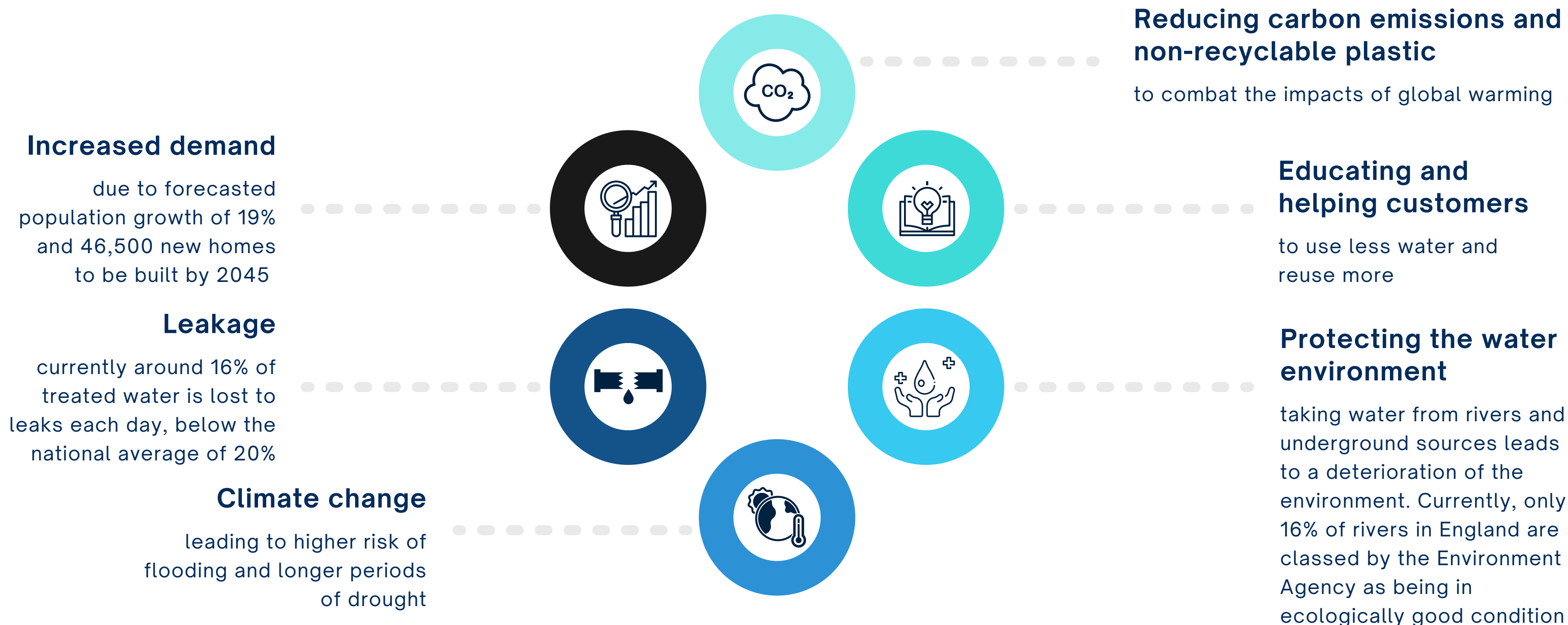


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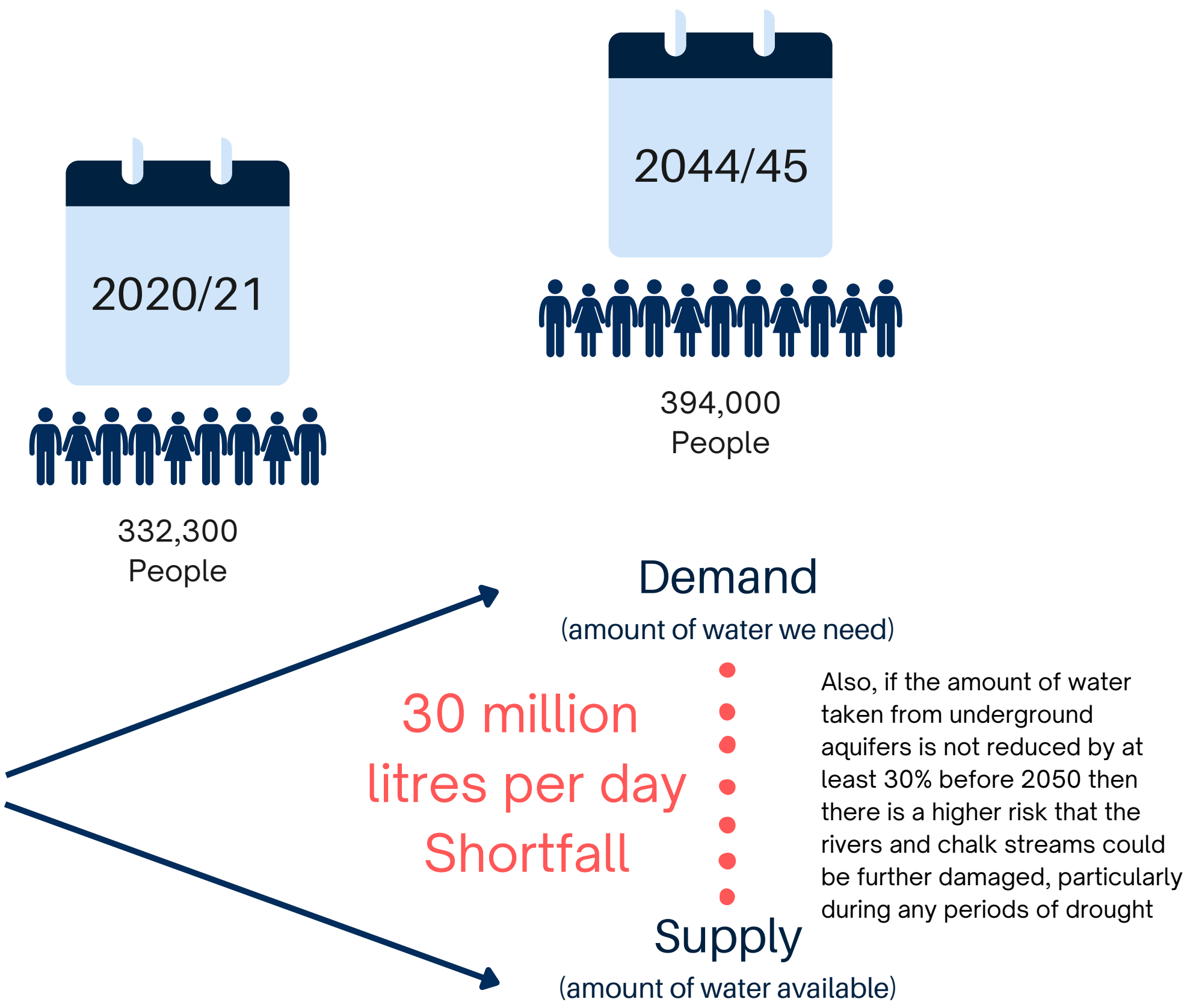
5: Cambridge plan in more details for household customers

Cambridge Water faces a number of big environmental challenges...



All whilst balancing the need for affordable water bills and ensuring there is enough drinking water available. Note that the Cambridge Water region has recently been classed by the Government as 'seriously water stressed' - this means there is a high risk of human demand for water being more than the amount available in the region.

What is forecast to happen if Cambridge Water do nothing?



To create a draft plan to meet these challenges, Cambridge Water has, over the last two years...

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Engaged with customers from all walks of life to find out their preferences
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Engaged with a wide range of stakeholder groups such as environmental organisations, trade groups, farming community, energy suppliers, councils etc.
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Worked in close partnership with three other water companies across the East of England to agree common approaches to water resource planning and share initiatives and resources
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Worked closely with industry experts, consultants and academics to analyse the cost and wider impacts of a wide range of options that could be used to tackle the challenges

The Plan - Service Levels

Drought and temporary water use restrictions

	Current service level	Service level from 2025
Temporary Use Bans (used to be called Hosepipe Bans) (the last ban in the region was 1991/92)	1 in 20 years	1 in 20 years
Non-essential use ban for businesses (the last ban in the region was 1976)	1 in 50 years	1 in 50 years
Severe water restrictions (such as the deployment of mobile water tanks and standpipes in the street - the last severe restriction in the region was 1976)	1 in 200 years	1 in 500 years



Given the forecasted impacts of climate change on rainfall levels, the Environment Agency is expecting water companies to make investments to reduce the chance of needing to deploy rota cuts and standpipes to a **once in every 500 year even by 2040**.

Cambridge Water has committed to this target in its plan but, to achieve this, it needs to further reduce demand for water, reduce leakage and bring in new water sources

The water environment




Current situation

To meet customer demand for water, Cambridge Water takes close to (80%) the amount of water legally permitted from the underground aquifers cross the region.

There are a range of legal requirements that Cambridge Water has to meet to prevent water environments from being damaged when taking water for human use. The company also runs environmental schemes to protect and restore the most at risk water environment in the region. However, the rare chalk streams across the region are predicted to be under increased threat of long-term damage.



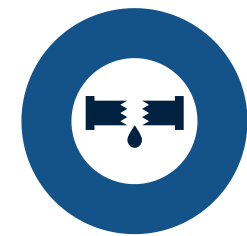
The Plan from 2025

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 Cambridge Water is planning to go further than it currently does and will undertake multiple detailed investigations of **77km of waterways** between 2025 – 2028 to understand exactly which underground aquifers they need to take less water from and when. The **main focus will be on restoring the chalk streams and areas that deliver amenities to the local community**, e.g. recreational lakes.
- 
 To achieve this level of environmental ambition, the company needs to reduce the water it takes from underground aquifers by **50 million litres per day by 2050 (down from 83 million)**. This means **reducing demand and finding new sources of water**, which comes at greater cost.
- 
 The aim is to **ensure more water environments have healthy level of water flowing in them**, which can **better support animals and wildlife** and make these areas **more attractive for community use**.

Whilst there are 380km of waterways in total across the region, Cambridge Water considers this level of ambition the best balance between restoring the water environment and the cost to achieve it

Demand Options

Here are the options the company is proposing to make better use the water we already have



Reducing leaks

Current Situation

In 2021/22, **12.6 million litres** of water was lost to leakage each day. Whilst this has reduced by 0.6 million litres per day over the last 5 years, it's still **equivalent to 5 Olympic size swimming pools of water each day**

65 million litres per day is equivalent to **16% of treated water**, this is less than the national industry average of 20%

Around **70% of leakage occurs in pipes Cambridge Water are responsible for**, 30% from leaks on customer properties which are the customers' responsibility for fixing

Cambridge Water Plan



Reduce the level of leakage by 50% (from the levels in 2017/18) by 2050. Targets between 2025-2050 will be set to track progress. Achieved through a range of initiatives - e.g. fitting more smart sensors to identify and fix pipes before leaking, investing in leak detection tech and innovations in new pipe materials less prone to leaking.



Achieving this national target would **save around 5.5 million litres of water per day in the year 2050**



Whilst reducing leakage further would be ideal, the cost of finding, fixing and repairing leaks gets more expensive as they get harder to find and repair. This would push up customer bills further and increase disruptive roadworks and pollution in the community



Reducing household & business usage

Current Situation



In 2021/22, the average **person used 141 litres per day**. This has **risen from 128 litres in 2019/20** with people spending more time at home due to the pandemic



In 2021/22, **businesses used 26.4 million litres** of water



Currently, **75% of households in the region have a water meter**. Virtually all businesses have a meter. Of these meters, just under **60% need to be read manually which happens twice a year**.

The current target for metering is to reach **90% of household properties with a meter by 2045**



There is currently **no product labelling to tell people how much water a product uses**, like energy efficiency for appliances



The company currently offer free water saving devices such as water butts and also work with developers to ensure at least 5% of new homes have home water recycling and re-use systems.

Cambridge Water Plan



Meet two national targets. Firstly, reduce the amount each person uses at home **by 28%, that's from 141 litres per day in 2021/22 to 110 litres per day by 2050**. The new Environment Act has also set water companies a target of reducing business water use by **9% by 2037**. To achieve these targets, Cambridge Water is planning to:



Ensure all properties have a water meter by 2035 - "universal metering". Invest in more advanced 'smart' meters for all customer properties which send regular, secure reads to the water company. Switching to this approach means new tariffs can be developed to encourage customers to use less water and provide customers with more information about when and where they use water. Unmetered customers will be offered a support package to identify ways to save water, including extra financial support for low-income households and those who have a medical need that means they use more water



The assumption is that the UK Government will introduce a product **labelling scheme in 2025** to help people make informed choices when they buy new appliances or fittings. The scheme has been successful in countries such as Australia and is **expected to make a notable difference in the UK**



The company will invest more in offering **heavily subsidised and/or free water saving devices** (e.g. water butts, shower heads). The company is also planning to **help develop new water saving technology**, such as compost toilets with no flushes and go further to promote and **encourage the retro-fitting of water recycling systems** in existing properties and **continue to incentivise developers to build low water use homes**



Supply Options

Here are the options the company is proposing to find new sources of water

These two new sources of water will be able to supply 200,000 homes and businesses to help meet the growing demand and environmental needs, including food production. But they are not short-term solutions and both are needed to meet future demand

A new 15km underground pipeline will be built to transfer water from Anglian Water's Grafham surface water reservoir into the Cambridge region

This transfer will provide up to 15 million litres of water per day and will come into operation from 2029



A new surface water storage reservoir is to be built by a partnership of Anglian Water and Cambridge Water. This will provide up to 43 million litres of water per day for Cambridge Water customers when it starts operating in 2035

A treatment works will be constructed and the water will be transferred into the Cambridge region through around 20km of new underground pipelines from the reservoir location, which is to the North East of Cambridge. This new source of water will come into operation from 2035

Amount of water saved, new sources and what this will cost customers



Water saved + new sources

58 million
litres per day

5.5 million
litres per day

9 million
litres per day

5 million
litres per day

What's in the plan?

New reservoir and pipeline transfer from the new Fenlands reservoir (from 2035) + New water transfer and pipeline from existing Grafham surface water reservoir (from 2029)

Reducing pipe leakage

Universal smart metering programme

Initiatives supporting household customers to reduce water usage

Initiatives to reduce business usage by 9%

When this will impact bills

From 2030
(for 100 years)

From 2025
(for 25 years)

From 2025
(for 15 years)

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Total bill increase

+£133.80 total
(over 20 years
2030-2050)

+£87.30 total
(over 25 years
2025-2050)

+£74.30 total
(over 15 years
2025-2040)

+£43.80 total
(over 25 years
2025-2050)

+£9.20 total
(over 15 years
2025-2040)

Yearly bill increase

+£6.70 per year
(between
2030 and 2050)

+£3.49 per year
(between
2025 and 2050)

+£4.95 per year
(between
2025 and 2040)

+£1.75 per year
(between
2025 and 2050)

+£0.61 per year
(between
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77.5 million
litres per day by 2050

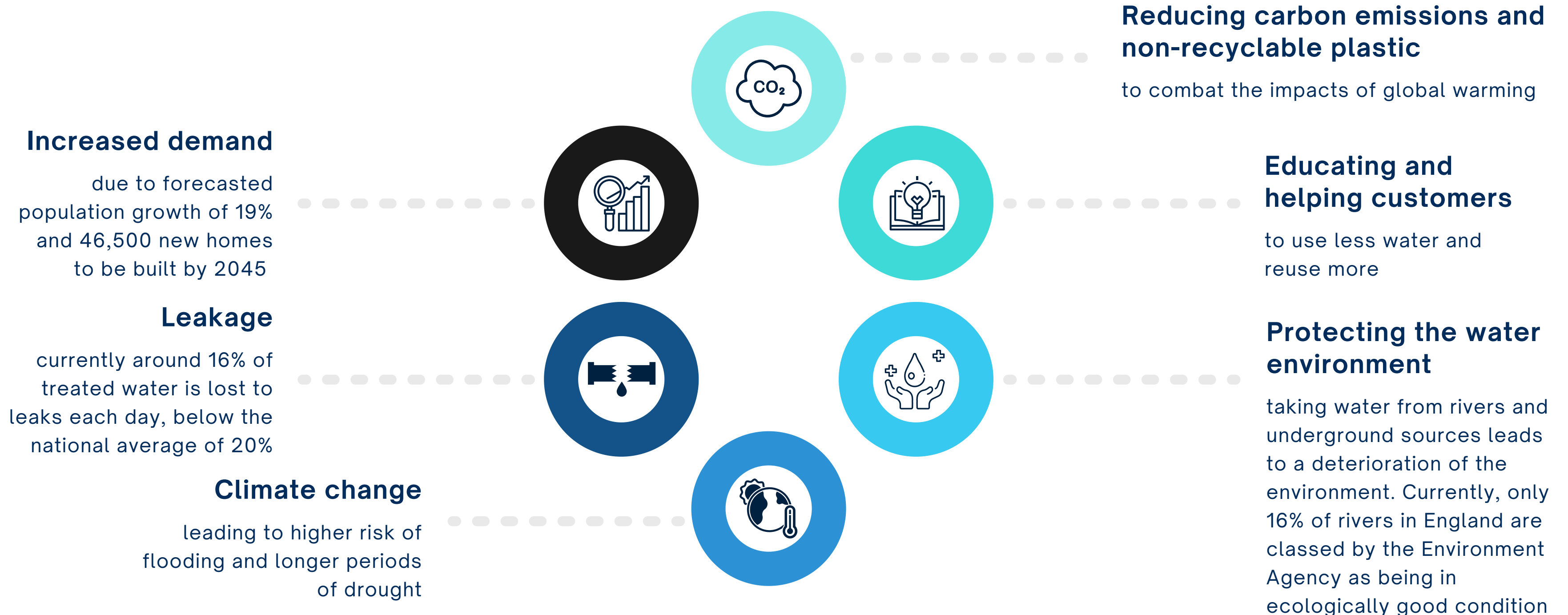
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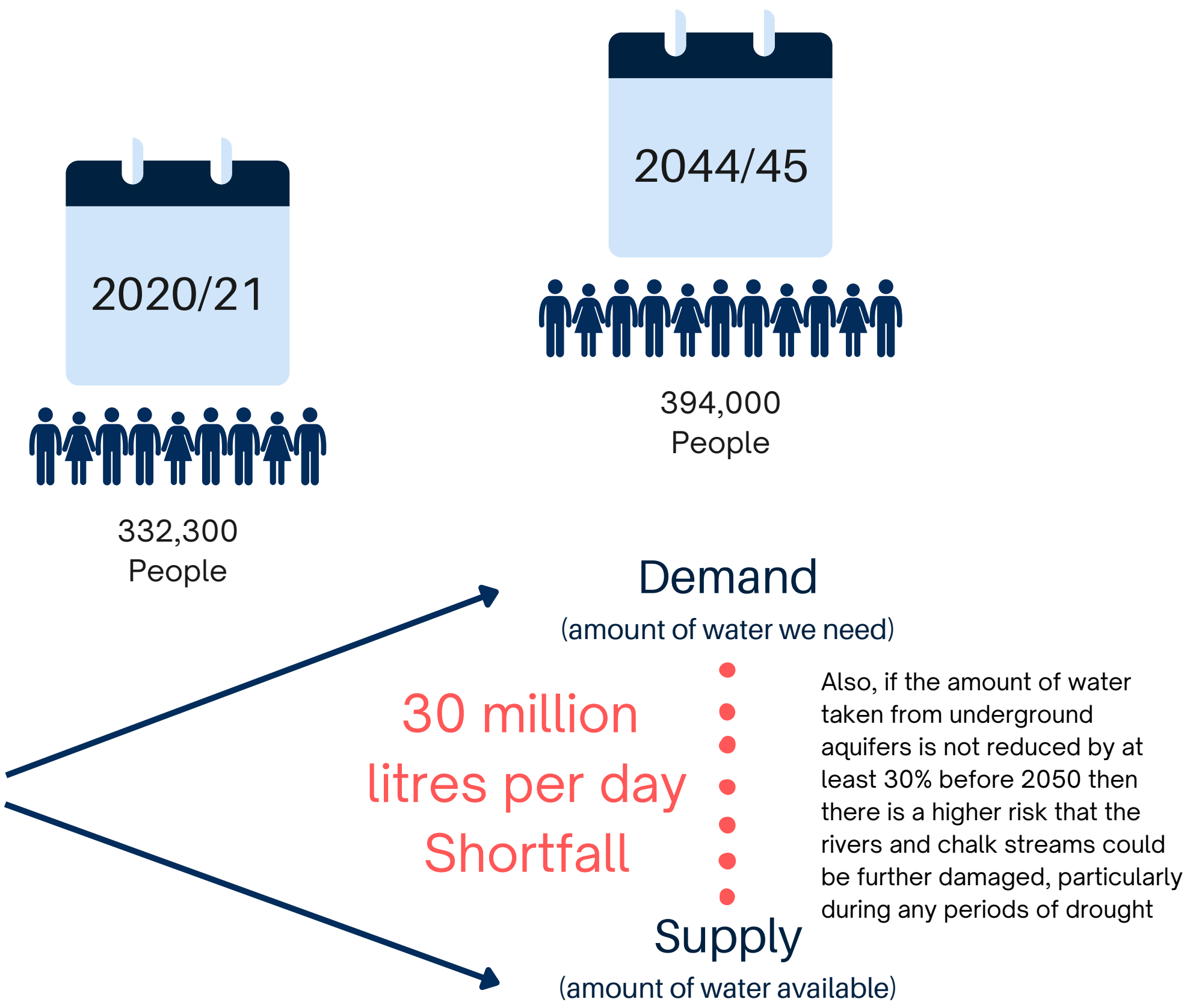
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In 2021/22, **12.6 million litres** of water was lost to leakage each day. Whilst this has reduced by 0.6 million litres per day over the last 5 years, it's still **equivalent to 5 Olympic size swimming pools of water each day**

65 million litres per day is equivalent to **16% of treated water**, this is **less than the national industry average of 20%**

Around **70% of leakage occurs in pipes Cambridge Water are responsible for**, **30% from leaks on customer properties** which are the customers' responsibility for fixing

Current Situation



Reducing household & business usage



In 2021/22, the average **person used 141 litres per day**. This has **risen from 128 litres in 2019/20** with people spending more time at home due to the pandemic



In 2021/22, **businesses used 26.4 million litres** of water



Currently, **75% of households in the region have a water meter**. Virtually all businesses have a meter. Of these meters, just under **60% need to be read manually which happens twice a year**.

The current target for metering is to reach **90% of household properties with a meter by 2045**



There is currently **no product labelling to tell people how much water a product uses**, like energy efficiency for appliances



The company currently offer free water saving devices such as water butts and also work with developers to ensure at least **5% of new homes have home water recycling and re-use systems**.

Cambridge Water Plan



Reduce the level of leakage by 50% (from the levels in 2017/18) by 2050. Targets between 2025-2050 will be set to track progress. Achieved through a range of initiatives - e.g. fitting more smart sensors to identify and fix pipes before leaking, investing in leak detection tech and innovations in new pipe materials less prone to leaking.



Achieving this national target would **save around 5.5 million litres of water per day in the year 2050**



Whilst reducing leakage further would be ideal, the cost of finding, fixing and repairing leaks gets more expensive as they get harder to find and repair. This would push up customer bills further and increase disruptive roadworks and pollution in the community

Cambridge Water Plan



Meet two national targets. Firstly, reduce the amount each person uses at home **by 28%, that's from 141 litres per day in 2021/22 to 110 litres per day by 2050**. The new Environment Act has also set water companies a target of reducing business water use by **9% by 2037**. To achieve these targets, Cambridge Water is planning to:



Ensure all properties have a water meter by 2035 - "universal metering". Invest in more advanced 'smart' meters for all customer properties which send regular, secure reads to the water company. Switching to this approach means new tariffs can be developed to encourage customers to use less water and provide customers with more information about when and where they use water. Unmetered customers will be offered a support package to identify ways to save water, including extra financial support for low-income households and those who have a medical need that means they use more water



The assumption is that the UK Government will introduce a product **labelling scheme in 2025** to help people make informed choices when they buy new appliances or fittings. The scheme has been successful in countries such as Australia and is **expected to make a notable difference in the UK**



The company will invest more in offering **heavily subsidised and/or free water saving devices** (e.g. water butts, shower heads). The company is also planning to **help develop new water saving technology**, such as compost toilets with no flushes and go further to promote and **encourage the retro-fitting of water recycling systems** in existing properties and **continue to incentivise developers to build low water use homes**



Supply Options

Here are the options the company is proposing to find new sources of water

These two new sources of water will be able to supply 200,000 homes and businesses to help meet the growing demand and environmental needs, including food production. But they are not short-term solutions and both are needed to meet future demand

A new 15km underground pipeline will be built to transfer water from Anglian Water's Grafham surface water reservoir into the Cambridge region

This transfer will provide up to 15 million litres of water per day and will come into operation from 2029



A new surface water storage reservoir is to be built by a partnership of Anglian Water and Cambridge Water. This will provide up to 43 million litres of water per day for Cambridge Water customers when it starts operating in 2035

A treatment works will be constructed and the water will be transferred into the Cambridge region through around 20km of new underground pipelines from the reservoir location, which is to the North East of Cambridge. This new source of water will come into operation from 2035

Amount of water saved, new sources and what this will cost customers



Water saved + new sources

58 million
litres per day

5.5 million
litres per day

9 million
litres per day

5 million
litres per day

What's in the plan?

When this will impact bills

Total bill increase

New reservoir and pipeline transfer from the new Fenlands reservoir (from 2035) + New water transfer and pipeline from existing Grafham surface water reservoir (from 2029)

From 2030
(for 100 years)

+5.5%
(over 20 years
2030-2050)

Reducing pipe leakage

From 2025
(for 25 years)

+2.8%
(over 25 years
2025-2050)

Universal smart metering programme

From 2025
(for 15 years)

+4.0%
(over 15 years
2025-2040)

Initiatives supporting household customers to reduce water usage

From 2025
(for 25 years)

+1.4%
(over 25 years
2025-2050)

Initiatives to reduce business usage by 9%

From 2025
(for 15 years)

+0.5%
(over 15 years
2025-2040)

77.5 million
litres per day by 2050

with a total bill increase of.....

+14.2%
across 25 years (2025-2050)

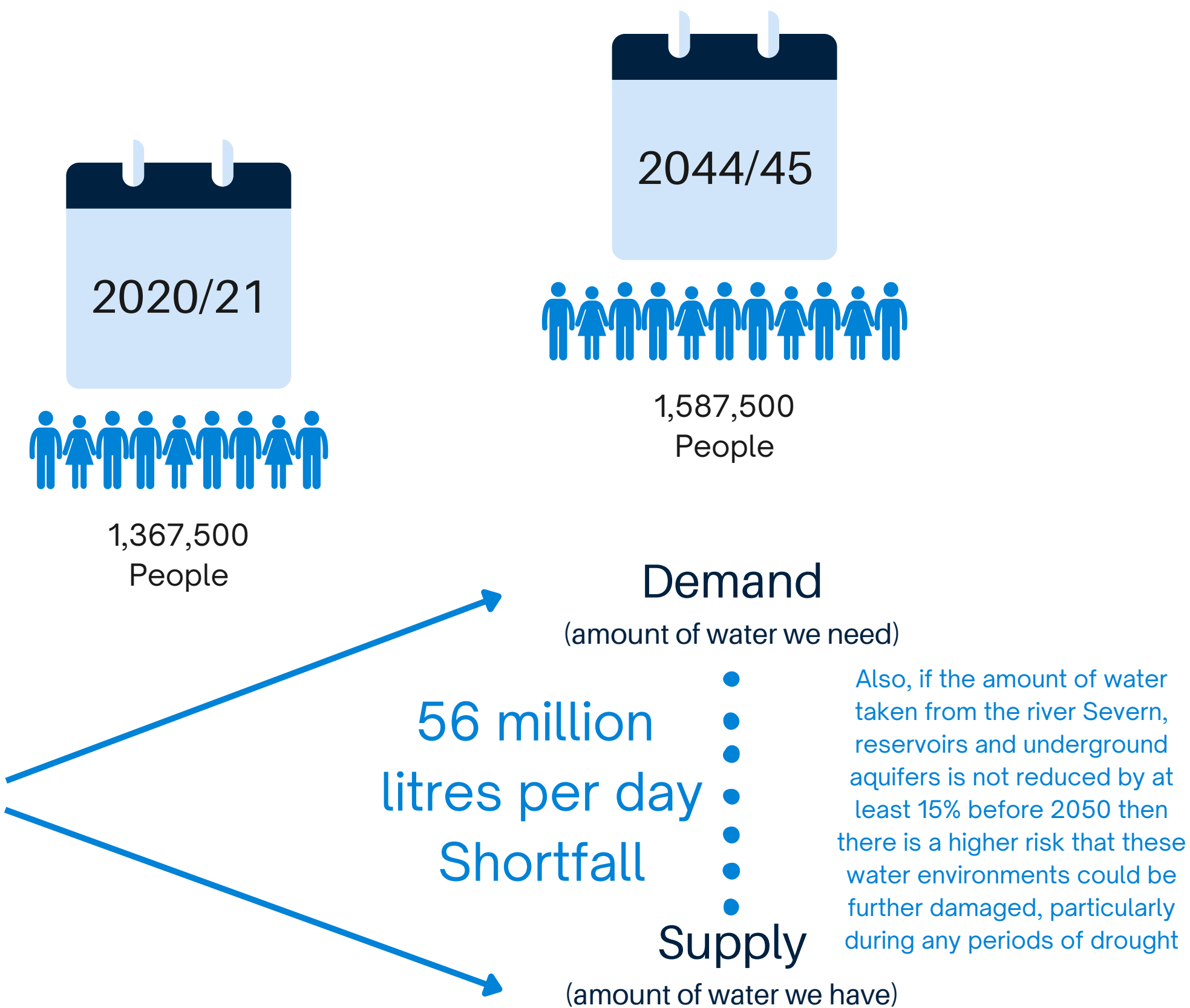
7: South Staffs plan in more detail for household customers

South Staffs Water faces a number of big environmental challenges...



All whilst balancing the need for affordable water bills and ensuring there is enough drinking water available. Note that the South Staffs Water region has recently been classed by the Government as 'seriously water stressed' - this means there is a high risk of human demand for water being more than the amount available in the region.

What is forecast to happen if South Staffs Water do nothing?



To create a draft plan to meet these challenges, South Staffs Water has, over the last two years...



Engaged with customers from all walks of life to find out their preferences



Engaged with a wide range of stakeholder groups such as environmental organisations, trade groups, farming community, energy suppliers, councils etc.



Worked in close partnership with four other water companies across the West of England to agree common approaches to water resource planning and share initiatives and resources



Worked closely with industry experts, consultants and academics to analyse the cost and wider impacts of a wide range of options that could be used to tackle the challenges

The Plan - Service Levels and the Environment

Drought and temporary restrictions

	Current service level	Service level from 2025
Hosepipe Bans (the last ban in the region was 1976)	1 in 40 years	1 in 40 years
Non-essential use ban for businesses (the last ban in the region was 1976)	1 in 80 years	1 in 80 years
Severe water restrictions (such as the deployment of mobile water tanks and standpipes in the street - the last severe restriction in the region was 1976)	1 in 200 years	1 in 500 years ↑



Given the forecasted impacts of climate change on rainfall levels, the Environment Agency is expecting water companies to make investments to reduce the chance of needing to deploy rota cuts and standpipes to a **once in every 500 year event by 2040.**

South Staffs Water has committed to this target in its plan but, to achieve this, it needs to further reduce demand for water, reduce leakage and bring in new water sources

The water environment

Current situation

To meet customer demand for water, South Staffs Water takes close to the amount of water legally permitted from the underground aquifers, the River Severn and the Blithfield Reservoir.



There are a range of legal requirements that South Staffs Water has to meet to prevent water environments from being damaged when taking water for human use. The company also runs environmental schemes to protect and restore the most at risk water environment in the region.

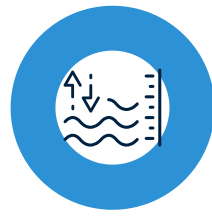
The Plan from 2025



South Staffs Water **plans to go further and adopt a greater protection for many the water environments across the region that are under greatest threat**, such as rivers and wetlands on sites of special scientific interest to those that provide amenities to local communities e.g. recreational lakes. There will also be additional protection put in place for water environments that are classed as European designated sites.



To achieve this level of environmental ambition, the company needs to reduce the water it takes from the water environment by **48 million litres per day by 2050.** This means **reducing demand and finding new sources of water**, which comes at greater cost.



The aim is to **ensure more water environments have healthy level of water flowing in them**, which can **better support animals and wildlife** and make these areas **more attractive for community use.**

South Staffs Water consider this level of ambition the best balance between restoring the water environment and the cost to achieve it

Demand Options

Here are the options the company is proposing to make better use the water we already have

Current Situation



Reducing leaks

In 2021/22, **65 million litres** of water was lost to leakage each day. Whilst this has reduced by 3.2 million litres per day over the last 5 years, it's still **equivalent to 26 Olympic size swimming pools of water** each day

65 million litres per day is equivalent to **20% of treated water, the same as the national industry average**

Around **70% of leakage occurs in pipes South Staffs Water are responsible for, 30% from leaks on customer properties** which are the customers' responsibility for fixing

Current Situation



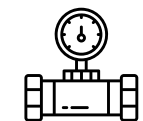
Reducing household & business usage



In 2021/22, the average **person** used **149 litres per day**. This has **risen from 128 litres in 2019/20** with people spending more time at home due to the pandemic



In 2021/22, **businesses** used **52.7 million** litres of water



Currently, just **45% of households have a water meter**. Virtually all businesses have a meter. Of these meters, just under **60% need to be read manually which happens once a year**.



The current target for metering is to reach **71% of household properties with a meter by 2045**.



There is currently **no product labelling to tell people how much water a product uses**, like energy efficiency for appliances.



The company currently offer free water saving devices such as water butts and also work with developers to ensure at least 5% of new homes have home water recycling and re-use systems.

South Staffs Plan



Reduce the level of leakage by 50% (from the levels in 2017/18) by 2050.

Targets between 2025-2050 will be set to track progress. Achieved through a range of initiatives - e.g. fitting more smart sensors to identify and fix pipes before leaking, investing in leak detection tech and innovations in new pipe materials less prone to leaking.



Achieving this national target would save around 18 million litres of water per day in the year 2050.



Whilst reducing leakage further would be ideal, the cost of finding, fixing and repairing leaks gets more expensive as they get harder to find and repair. This would push customer bills up further and increase disruptive roadworks and pollution in the community.

South Staffs Plan



Meet two national targets. Firstly, reduce the amount each person uses at home **by 36%, that's from 149 litres per day in 2021/22 to 110 litres per day by 2050**. The new Environment Act has also set water companies a target of reducing business water use by **9% by 2037**. To achieve these targets, South Staffs is planning to:



Ensure **all properties have a water meter by 2035 - "universal metering"**. Invest in more advanced 'smart' meters for all customer properties which send regular, secure reads to the water company. Switching to this approach means new tariffs can be developed to encourage customers to use less water and provide customers with more information about when and where they use water. Unmetered customers will be offered a support package to identify ways to save water, including extra financial support for low-income households and those who have a medical need that means they use more water.



The assumption is that the UK Government will introduce a product **labelling scheme in 2025** to help people make informed choices when they buy new appliances or fittings. The scheme has been successful in countries such as Australia and is **expected to make a notable difference in the UK**.



The company will invest more in offering **heavily subsidised and/or free water saving devices** (e.g. water butts, shower heads). The company is also planning to **help develop new water saving technology**, such as compost toilets with no flushes and go further to promote and **encourage the retro-fitting of water recycling systems** in existing properties and **continue to incentivise developers to build low water use homes**.

Supply Options

Here is the option the company is proposing to find additional water

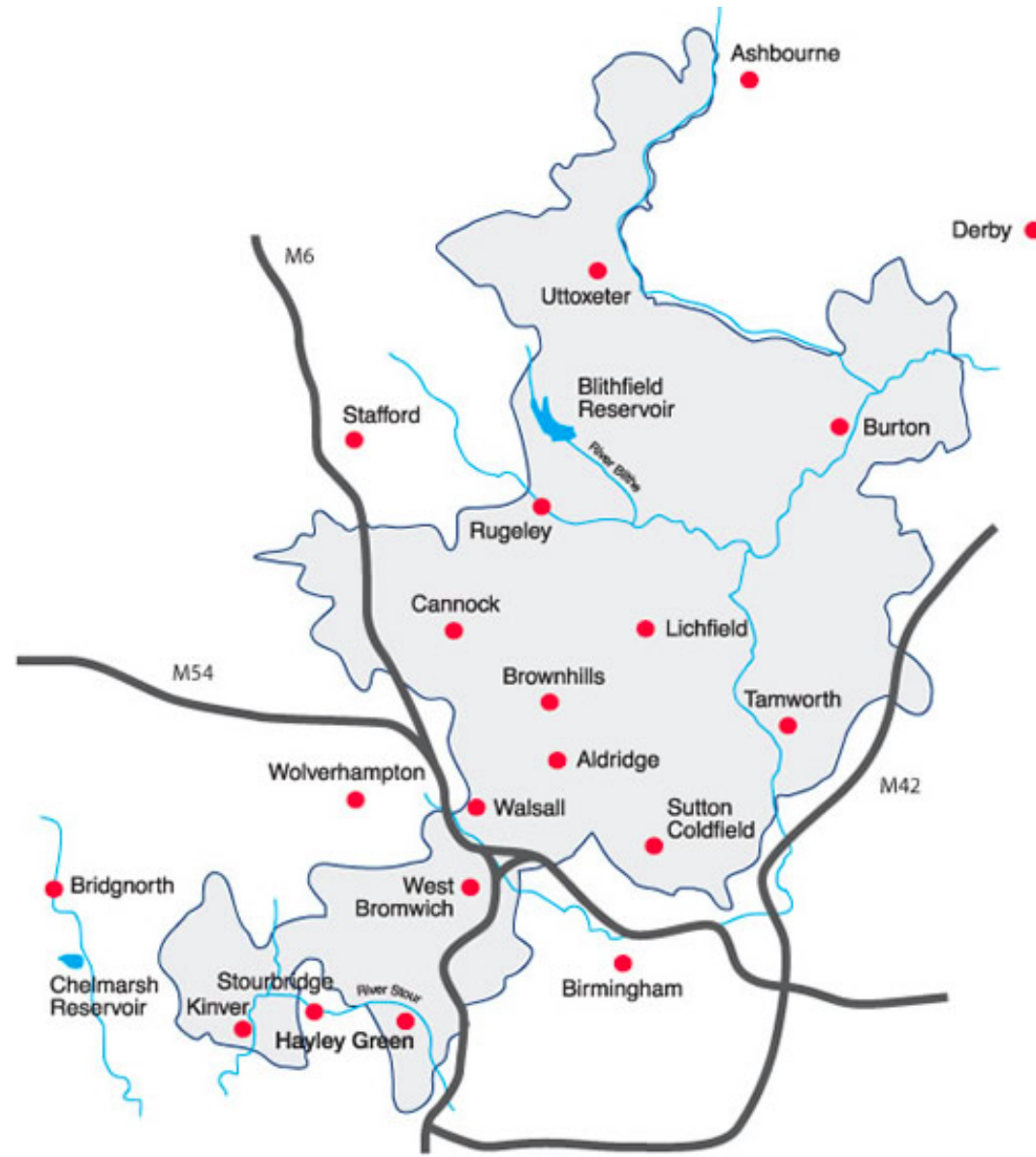


Raising the height of the Blithfield reservoir by 2m will provide up to **16 million litres of water per day for South Staffs Water customers** when it comes into operation in **2045**



This new source of water will be able to supply 50,000 homes and help meet the growing demand from businesses.

About South Staffs Water and Cambridge Water



- **South Staffs Water merged with Cambridge Water with in April 2013**, which means there is one company, serving customers across two different regional areas
- The money from customers' bills across both the regions is combined into one pot and used to pay for investments to improve service, including major investments in assets like water treatment works and water storage reservoirs. The company considers this the fairest and most efficient way to deliver the improvements customers want
- In this latest water resources management plan, there is a need to raise the height of the Blithfield Reservoir dam by 2m. **This investment will cost every household property £89 in total over its 100 year lifetime, or £0.89 a year**
- However, there is also the need to plan, construct and maintain a major new surface water reservoir and also build a treatment works and pipelines to then move the water into the Cambridge region. There is a lot of development in the region and the region is forecast to see lower rainfall levels so this investment will need to provide enough additional water to supply 200,000 homes and help meet the growing demand from businesses and also help restore the most at risk water environments. **This investment will cost every household property £669 in total over its 100 year lifetime, or £6.69 a year**

The company supplies

- **566,000 homes** and almost **35,000 business** properties in the **South Staffs region**
- **140,000 homes** and almost **9,000 business** properties in the **Cambridge region**



- If the plans go head, **every South staffs Water and Cambridge Water customer will pay an equal share through their water bills** to deliver both of these major investments
- As an example, in 2018, hundreds of Cambridge Water customers were consulted on whether they supported contributing to the cost of upgrading the two main water treatment works in the South Staffs Water region - this was accepted by the majority of Cambridge customers. The **£60m** upgraded works are now under construction, which will improve water quality for South Staffs Water customers and reduce running costs from 2025 when completed

Amount of water saved, new sources and what this will cost customers



Water saved + new sources

What's in the plan?

When this will impact bills

Total bill increase

Yearly bill increase

16 million
litres per day

Raising the height of the dam at the Blithfield Reservoir by 2 meters

From 2040
(for 10 years)

+£8.90 total
(over 10 years
2040-2050)

+£0.89 per year
(between
2040 and 2050)

18 million
litres per day

Reducing pipe leakage

From 2025
(for 25 years)

+£87.25 total
(over 25 years
2025-2050)

+£3.49 per year
(between
2025 and 2050)

33 million
litres per day

Universal smart metering programme +

From 2025
(for 15 years)

+£74.25 total
(over 15 years
2025-2040)

+£4.95 per year
(between
2025 and 2040)

Initiatives supporting household customers to reduce water usage

From 2025
(for 25 years)

+£43.75 total
(over 25 years
2025-2050)

+£1.75 per year
(between
2025 and 2050)

12 million
litres per day

Initiatives to reduce business usage by 9%

From 2025
(for 15 years)

+£9.15 total
(over 15 years
2025-2040)

+£0.61 per year
(between
2025 and 2040)

This option will not provide any additional water for South Staffs Water customers

Building a new surface water reservoir, treatment works and a second water transfer to ensure the Cambridge Water region has enough water in the future

From 2030
(for 100 years)

+£133.80 total
(over 20 years
2030-2050)

+£6.69 per year
(between
2030 and 2050)

79 million
litres per day by 2050

at a total cost of.....

£357.10
across 25 years (2025-2050)

+£14.28
annual increase ²⁹

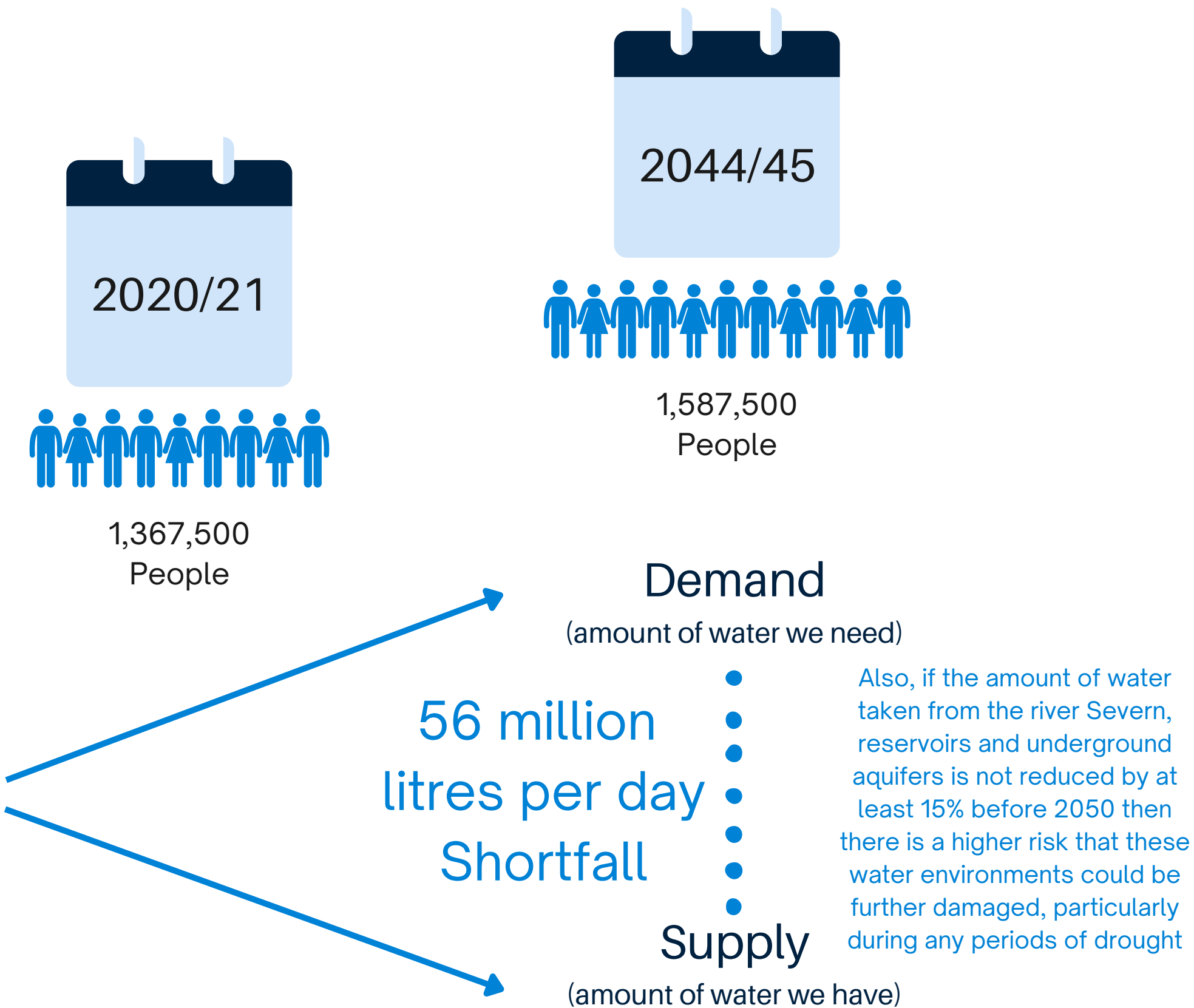
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All whilst balancing the need for affordable water bills and ensuring there is enough drinking water available. Note that the South Staffs Water region has recently been classed by the Government as 'seriously water stressed' - this means there is a high risk of human demand for water being more than the amount available in the region.

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To create a draft plan to meet these challenges, South Staffs Water has, over the last two years...



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The water environment

Current situation

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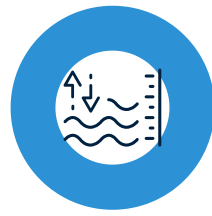
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To achieve this level of environmental ambition, the company needs to reduce the water it takes from the water environment by **48 million litres per day by 2050.** This means **reducing demand and finding new sources of water**, which comes at greater cost.



The aim is to **ensure more water environments have healthy level of water flowing in them**, which can **better support animals and wildlife** and make these areas **more attractive for community use.**

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Demand Options

Here are the options the company is proposing to make better use the water we already have

Current Situation



Reducing leaks

In 2021/22, **65 million litres** of water was lost to leakage each day. Whilst this has reduced by 3.2 million litres per day over the last 5 years, it's still **equivalent to 26 Olympic size swimming pools of water** each day

65 million litres per day is equivalent to **20% of treated water, the same as the national industry average**

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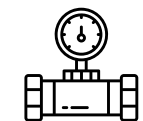
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South Staffs Plan



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Whilst reducing leakage further would be ideal, the cost of finding, fixing and repairing leaks gets more expensive as they get harder to find and repair. This would push customer bills up further and increase disruptive roadworks and pollution in the community.

South Staffs Plan



Meet two national targets. Firstly, reduce the amount each person uses at home **by 36%, that's from 149 litres per day in 2021/22 to 110 litres per day by 2050**. The new Environment Act has also set water companies a target of reducing business water use by **9% by 2037**. To achieve these targets, South Staffs is planning to:



Ensure **all properties have a water meter by 2035 - "universal metering"**. Invest in more advanced 'smart' meters for all customer properties which send regular, secure reads to the water company. Switching to this approach means new tariffs can be developed to encourage customers to use less water and provide customers with more information about when and where they use water. Unmetered customers will be offered a support package to identify ways to save water, including extra financial support for low-income households and those who have a medical need that means they use more water.



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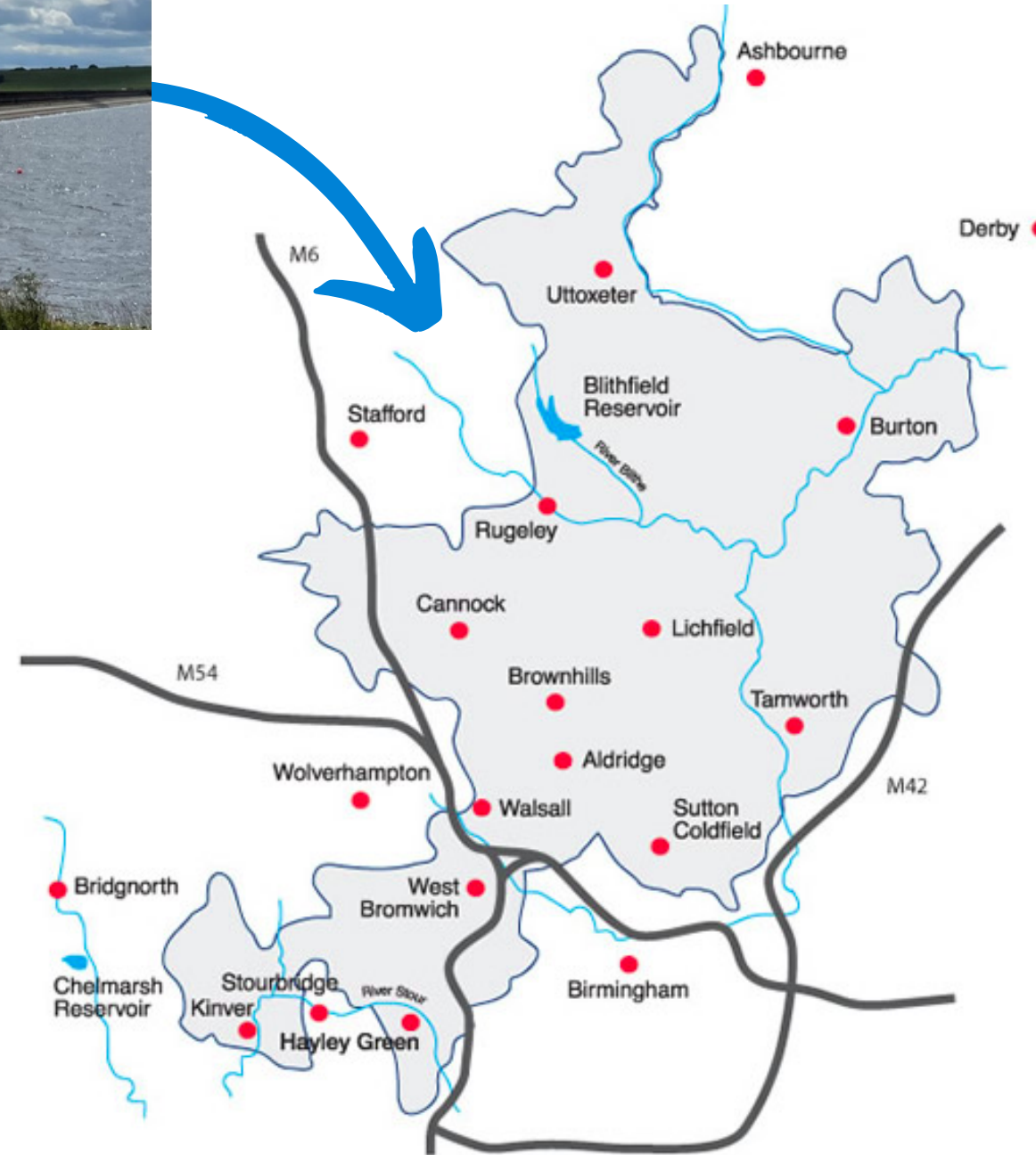
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Supply Options

Here is the option the company is proposing to find additional water

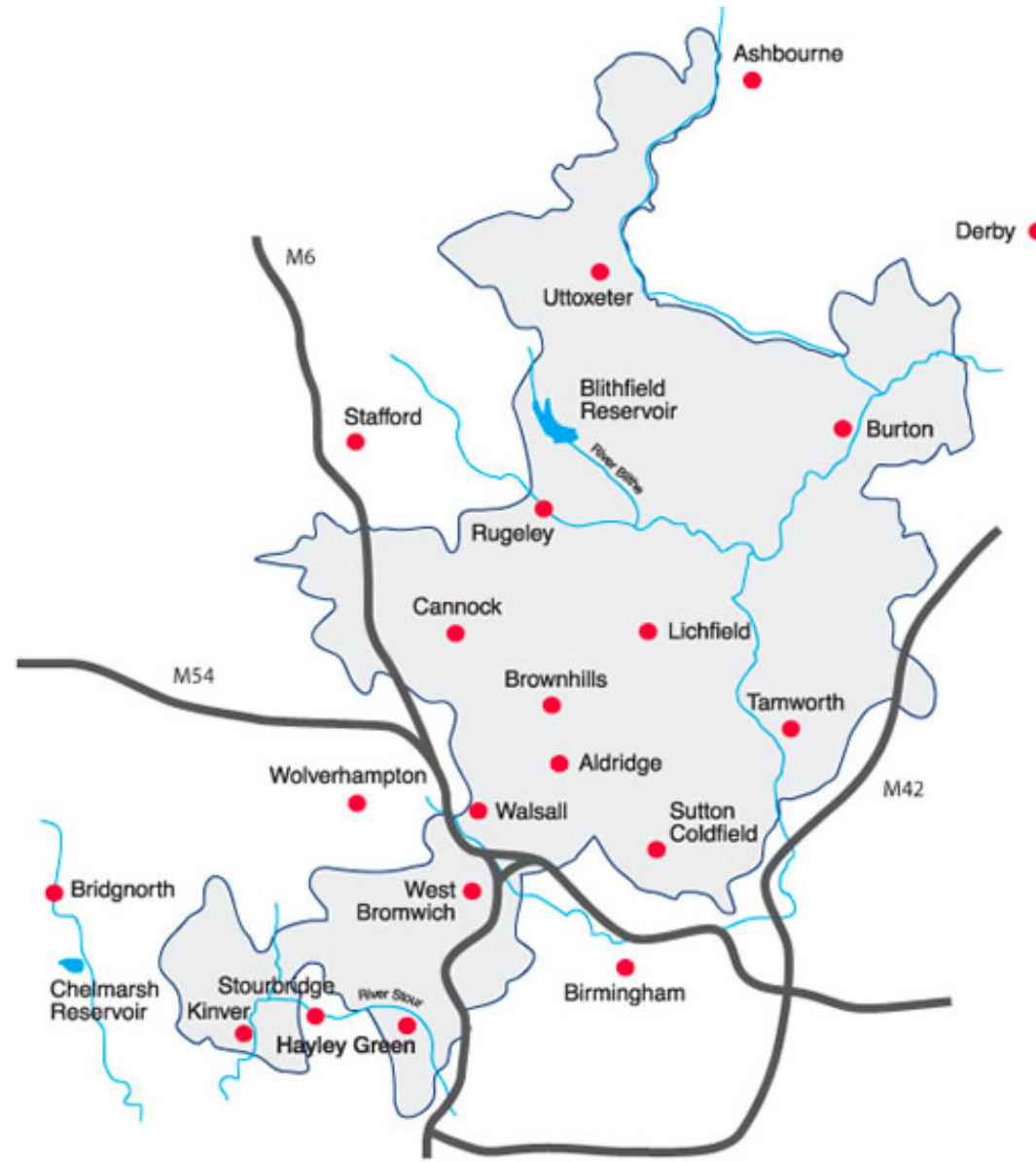


Raising the height of the Blithfield reservoir by 2m will provide up to **16 million litres of water per day for South Staffs Water customers** when it comes into operation in **2045**



This new source of water will be able to supply 50,000 homes and help meet the growing demand from businesses.

About South Staffs Water and Cambridge Water



- **South Staffs Water merged with Cambridge Water with in April 2013**, which means there is one company, serving customers across two different regional areas
- The money from customers' bills across both the regions is combined into one pot and used to pay for investments to improve service, including major investments in assets like water treatment works and water storage reservoirs. The company considers this the fairest and most efficient way to deliver the improvements customers want
- In this latest water resources management plan, there is a need to raise the height of the Blithfield Reservoir dam by 2m. **This investment will increase business customers' annual water bill by 0.7% over its 100 year lifetime**
- However, there is also the need to plan, construct and maintain a major new surface water reservoir and also build a treatment works and pipelines to then move the water into the Cambridge region. There is a lot of development in the region and the region is forecast to see lower rainfall levels so this investment will need to provide enough additional water to supply 200,000 homes and help meet the growing demand from businesses and also help restore the most at risk water environments. **This investment will increase business customers' annual water bill by 5.5% over its 100 year lifetime**

The company supplies

- **566,000 homes** and almost **35,000 business** properties in the **South Staffs region**
- **140,000 homes** and almost **9,000 business** properties in the **Cambridge region**



- If the plans go head, **every South staffs Water and Cambridge Water customer will pay an equal share through their water bills** to deliver both of these major investments
- As an example, in 2018, hundreds of Cambridge Water customers were consulted on whether they supported contributing to the cost of upgrading the two main water treatment works in the South Staffs Water region - this was accepted by the majority of Cambridge customers. The **£60m** upgraded works are now under construction, which will improve water quality for South Staffs Water customers and reduce running costs from 2025 when completed

Amount of water saved, new sources and what this will cost customers



Water saved + new sources

16 million
litres per day

18 million
litres per day

33 million
litres per day

12 million
litres per day

This option will not provide any additional water for South Staffs Water customers

79 million
litres per day by 2050

What's in the plan?

Raising the height of the dam at the Blithfield Reservoir by 2 meters

Reducing pipe leakage

Universal smart metering programme

Initiatives supporting household customers to reduce water usage

Initiatives to reduce business usage by 9%

Building a new surface water reservoir, treatment works and a second water transfer to ensure the Cambridge Water region has enough water in the future

When this will impact bills

From 2040
(for 10 years)

From 2025
(for 25 years)

From 2025
(for 15 years)

From 2025
(for 25 years)

From 2025
(for 15 years)

From 2030
(for 100 years)

Total bill increase

+0.7%
(over 10 years
2040-2050)

+2.8%
(over 25 years
2025-2050)

+4.0%
(over 15 years
2025-2040)

+1.4%
(over 25 years
2025-2050)

+0.5%
(over 15 years
2025-2040)

+5.5%
(over 20 years
2030-2050)

with a total bill increase of.....

+14.9%
across 25 years (2025-2050)

9: Cambridge Adaptive plan - What happens if the plan is not working?...

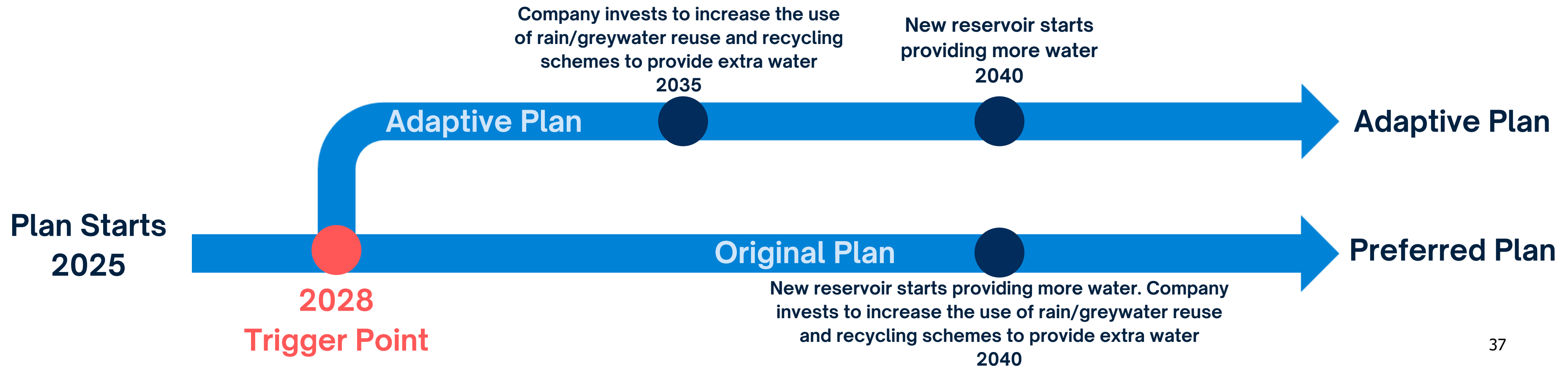
With all long-term planning, it's important water companies think about how changes might impact their plans.

For example, if the population grew quicker than expected, or if climate change meant temperatures increased more rapidly, would the plans put forward still be the best?

Having backup plans in place is important - this approach is called "**adaptive planning**"

The example **Adaptive Plan** below shows what would happen if the initiatives in the draft plan to reduce demand for water only deliver half (50%) of the savings Cambridge Water forecast they would, e.g. if in 2028 customers who move to meters don't reduce their consumption as much as thought, the water product labelling initiative delivers less savings than expected, and the company's plans to reduce leakage fall short of the target etc. Demand options in the draft plan are the ones that are hardest to forecast as they depend on so many factors outside a water company's control.

At this trigger point in 2028, Cambridge Water would then decide whether to bring forward the investment in rain/greywater reuse schemes to plug the gap and ensure it meets its ambitions to improve the water environment and still meet customer demand.



10: South Staffs Adaptive plan - What happens if the plan is not working?...

With all long-term planning, it's important water companies think about how changes might impact their plans.

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At this trigger point in 2028, South Staffs Water would then decide whether to bring forward the investment to raise the height of the Blithfield dam by 2m in order to plug the gap and ensure it meets its ambitions to improve the water environment and still meet customer demand.

