



Our Plan for Customers and Communities

March 2019

A summary of our Revised Draft Water Resources Management Plan 2020 – 2080

The water resource challenge that we all face

Within the next five years and in the longer term we know that there will not be enough water for our customers and the environment unless we make changes to meet the challenges we face. Doing nothing is not an option. We need to act now to ensure there is enough water for future generations.

What is a Water Resources Management Plan?

Our Water Resources Management Plan sets out how we will provide a reliable, resilient, efficient and affordable water supply to customers from 2020 to 2080, whilst protecting the environment.

Our Plan addresses the need to balance the availability of water supply with the demand for water from customers. Without action, we face the risk of a significant shortfall of water in the future in this region due to population

growth and climate change. We also want to help protect the environment and improve the resilience of our water supplies to droughts and other challenges.

All customers will be impacted by our Plan which we believe addresses the challenges we face and provides best value for customers and the environment. We are keen to hear the views of customers and stakeholders on our draft revised Plan.

Our draft revised Plan is available at:

www.affinitywater.co.uk/waterresourcesplan

This document is a summary of our revised draft plan. It sets out the main challenges we face and what we are proposing to do about them. We have also produced a short video which is available at:

www.affinitywater.co.uk/haveyoursay



About Affinity Water

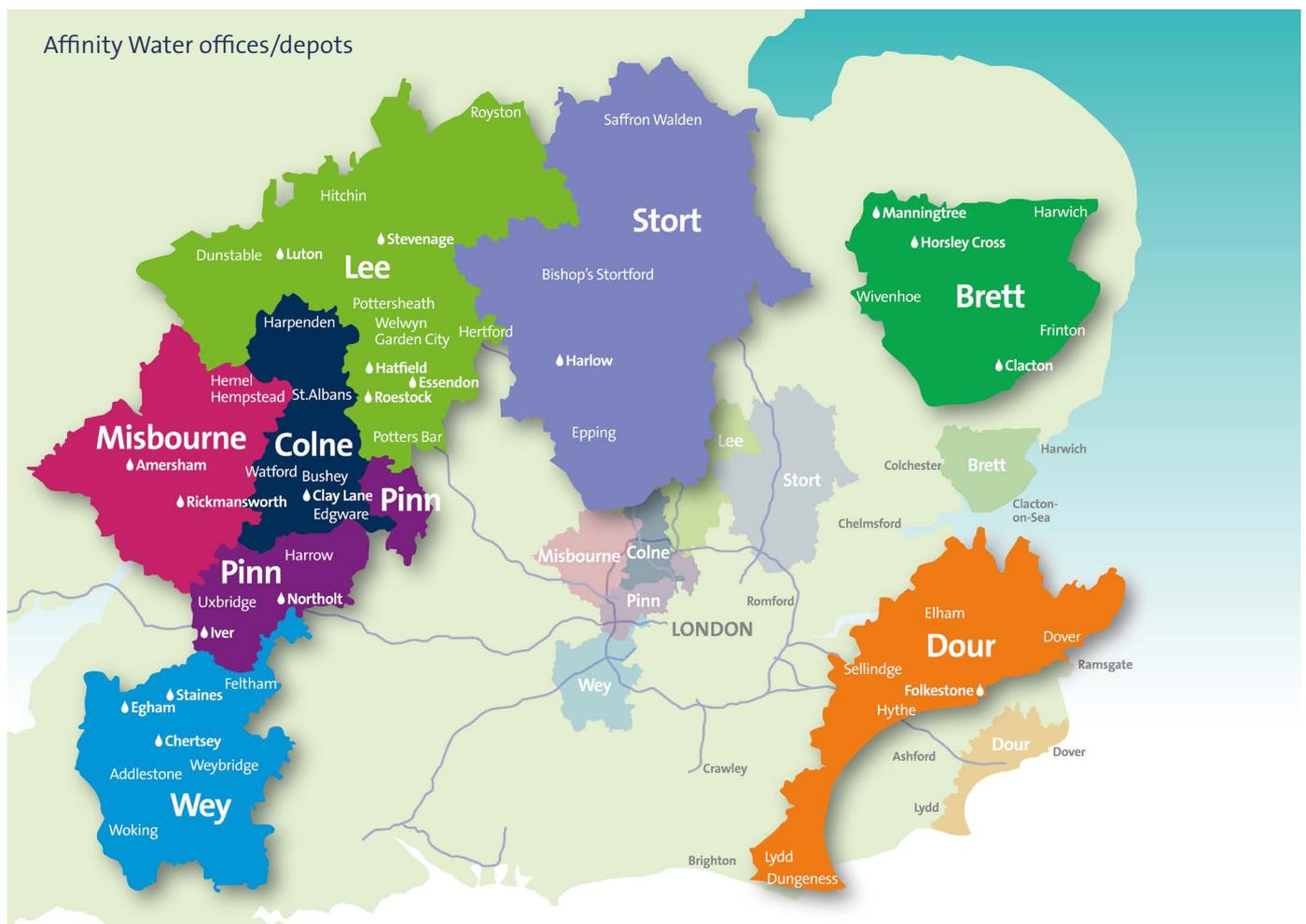
It is our vision to be the leading community-focused water company.

What this means to us is that we will do our best to ensure that our service reflects your priorities. By understanding and responding to your needs at a local level we are far more likely to provide a better service to you and protect the environment.

The area we cover

We have three distinct supply regions, Central, Southeast and East. Our Central region is split into six communities (Wey, Pinn, Colne, Misbourne, Lee and Stort), with our East region being our Brett community and our Southeast region being our Dour community. Our eight communities are each named after a local river.

Our supply area



Who we supply water to?

We provide on average 900 million litres of drinking water to approximately 3.6 million people, or 1.4 million households every day.

Where our water comes from

The water we supply is currently mostly from local sources, with 65% coming from aquifers (porous rocks that store water around 80 metres below the ground) and 35% from rivers. We often have to move our water a considerable distance from where we take it to where we treat it and distribute it to your tap.

The key themes of our Plan



Our Plan addresses the following challenges in our supply area



Climate change

Changing weather patterns may mean that there will be less water in the future and more frequent extreme weather events such as droughts and flooding. Climate change is likely to reduce our supply of water in our area by 39 million litres of water per day by 2080.

The South East of England is already classified as a severely water stressed area. This means it gets less rainfall than other parts of the country. The Affinity Water area is one of the driest in the country. For example, between July 2016 and April 2017 the area received 33% less rainfall than the national average.



Population growth

The population is growing and is expected to increase by 12% by 2025, 27% by 2045 and 51% by 2080. This is equivalent to approximately 1.8 million more people in our supply area. Population growth by each of our three regions is broken down on page 5



Protecting the environment

Our supply area is home to many rare chalk stream habitats within vulnerable catchments (an area of land where water collects when it rains). To help improve the natural

environment we are reducing the amount of water we take from underground sources (aquifers) from within these catchments by 36.3 million litres of water per day by 2025. This helps to protect the environment by allowing that water to become available to support river flow and lakes.



Being prepared to cope with drought

Our regulators, customers and stakeholders have told us they want to have a resilient water supply without the use of standpipes or drought permits in a severe drought (1 in 200 year event). Our supply of water is likely to be reduced by a further 40 million litres of water per day under this type of severe drought.



How much water do we use?

Affinity Water customers use an average of 152 litres of water per person per day. This is higher than the national average consumption (for England and Wales) of 141 litres per person per day.

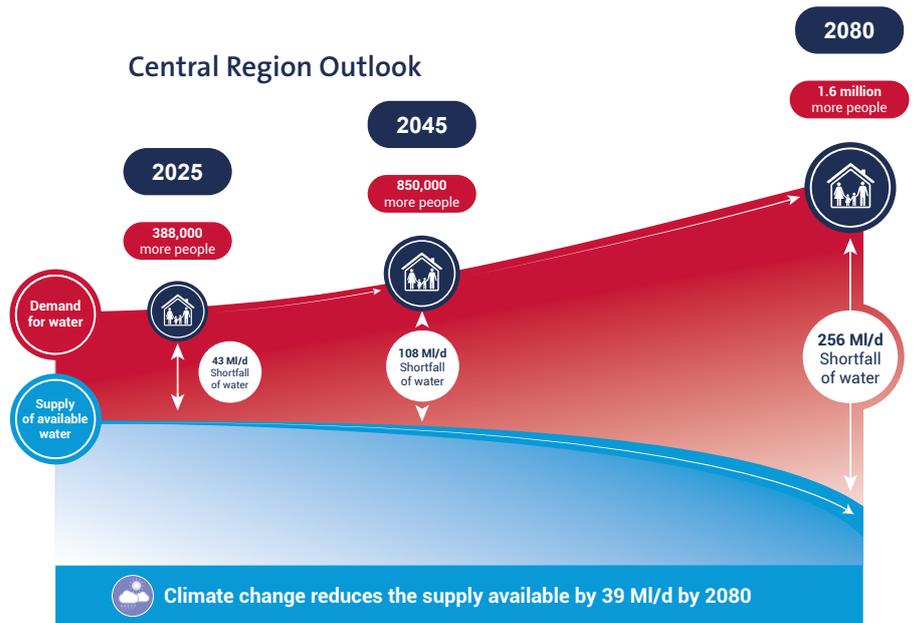
We can't control how much water customers use but can support them to reduce the amount by raising awareness and providing practical solutions. We already do a lot to help customers with this but recognise we can do more.

What is the impact of these challenges?

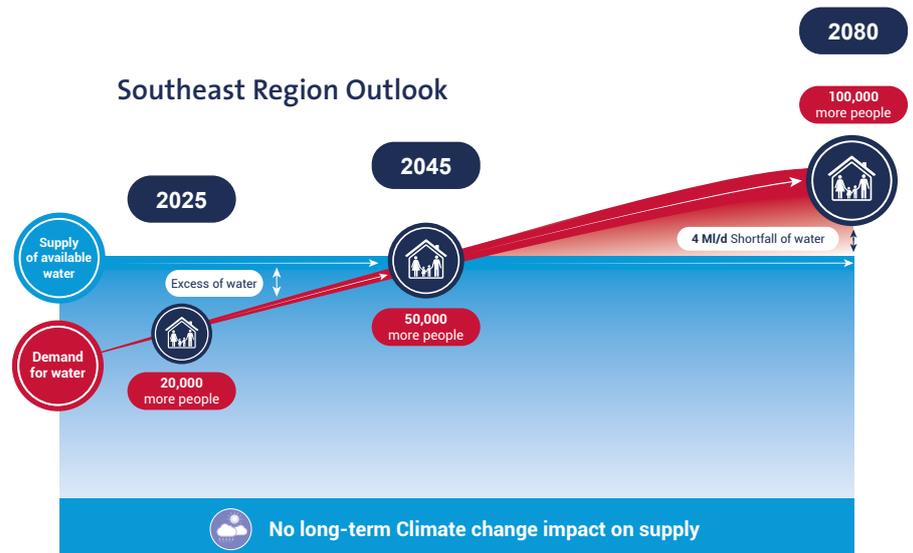
Taking all of these factors into account, the amount of water we currently have available to supply to customers will not meet the future demand. Doing nothing is therefore not an option if we are to have enough water for future generations.

We provide water to three regions called Central, East and Southeast. The needs of our regions are different. The opposite images illustrate the different outlooks for each of the three regions. The images show:

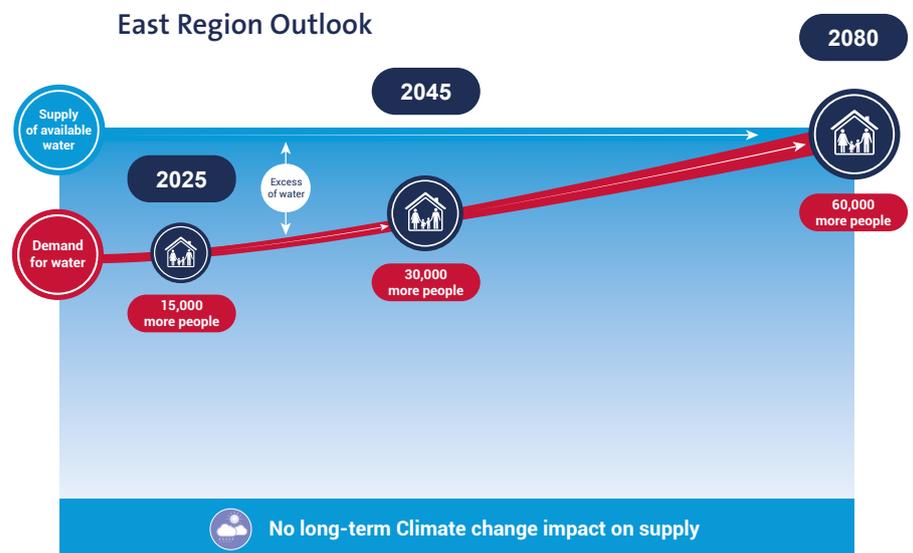
- The demand for water based mainly on predicted population growth
- The shortfall or excess of water at key points in time over the length of our Plan (2020 to 2080) if we do nothing
- The predicted impact of climate change on water supply.



MI/d = Million Litres per day



MI/d = Million Litres per day



MI/d = Million Litres per day

What customers and stakeholders have told us?

We ran a public consultation on our draft plan which ended on 23 May 2018. We have considered feedback from customers and stakeholders and published our Statement of Response in October 2018. This is available at: www.affinitywater.co.uk/haveyoursay

We consulted widely with customers, stakeholders and regulators on our draft plan and have run a series of events with customers, stakeholders and regulators to discuss our proposals for our revised draft plan.

They told us that we should:



Make sure there is enough water for future generations



Help them reduce the amount of water they use in their homes



Reduce leakage



Put new infrastructure in place to provide new sources of water



Take less water from the environment, in particular chalk streams

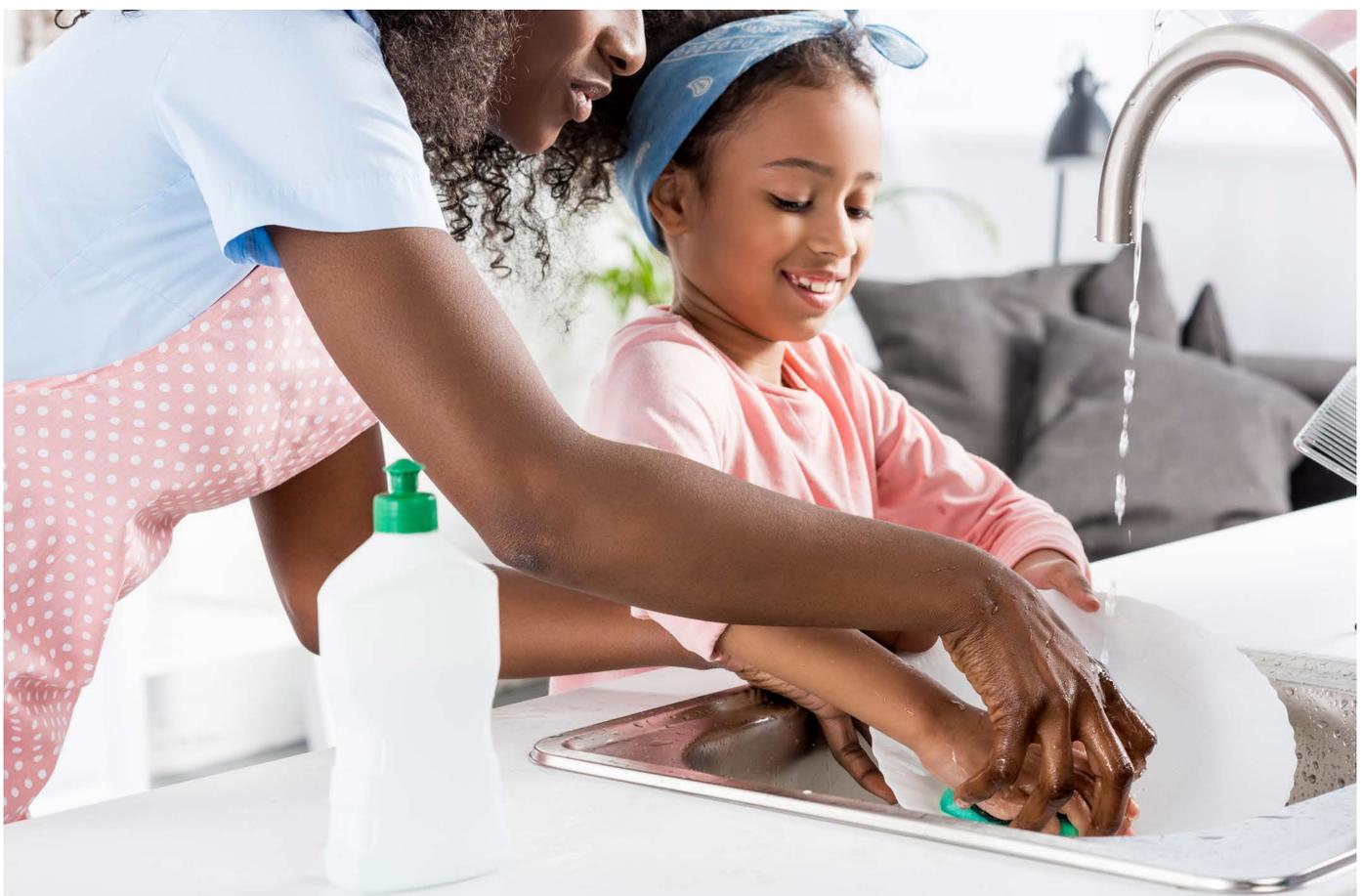


Work in partnership with other water companies.



Be better prepared for drought

We have listened to what our customers, stakeholders and regulators have told us, and their views have influenced our revised draft plan.



How we are planning to meet the changing needs of the future

We recognise that the future security of water resources is uncertain. This is due to population growth, the need to leave more water in the environment and the potential impact from climate change on our water supplies. We also acknowledge there is uncertainty around the future reduction in customer demand for water and government and regulator policy.

Our Plan allows us to adapt to these uncertainties and ensures for the timely delivery of the appropriate solutions. We are proposing an approach that focuses on demand management and long term regional strategic solutions.

We believe our Plan is flexible and affordable for customers and spreads the cost of implementing it across current and future customers.

Protecting the environment



- Our Plan commits to reducing the amount of water we take from chalk catchments in our Central region. We will do this by reducing the amount of water we take from existing sources and avoiding any further development of new chalk groundwater options in our Central region. By doing so we are helping to protect natural water resources and the local environment within these vulnerable chalk catchments.

How we plan to reduce the demand for water



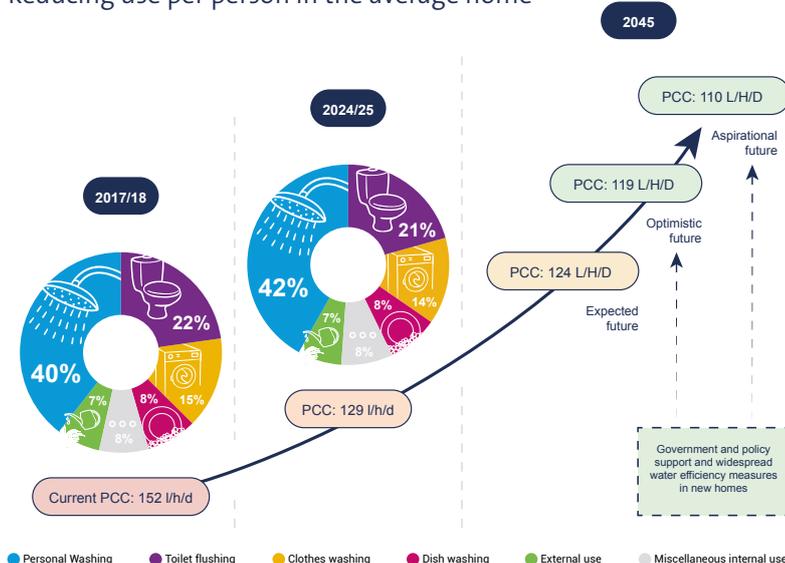
- We are committed to reducing leakage. In 2015, leakage was around 21% (189 million litres of water per day) of the water we put into supply. By 2025 we will have reduced this to 15%
- Reduce this to between 11% and 13% of the water we put into supply by 2045, whilst ensuring we can do this in an affordable way for customers. Overall this means a reduction of nearly 50% from our starting position on leakage at 2015.



- Reduce water use from an average of 152 litres per person per day to 129 litres per person per day by 2025
- Aim towards further reducing water use to between 110 and 120 litres per person per day by 2045, but only if this is affordable for customers and delivered in a way that is acceptable to them.

PCC Forecast

Reducing use per person in the average home



The percentage figures are breakdown of typical water use for metered customers only and includes 80% of properties metered by 2025.

PCC = per capita consumption (the amount of water used per person per day)

Our actions will include:

- Installing more water meters in homes and businesses and upgrading these to smart meters by 2045. This will provide customers with more regular information on how much water they are using
- Providing customers with water audits to improve the water efficiency in their homes
- Supporting a national water efficiency campaign and working with Government to introduce new policies to increase water efficiency
- Implementing a range of new Community Water Efficiency Schemes
- Working with retailers to improve water efficiency of businesses.

How we are planning to meet the changing needs of the future continued

How we plan to increase the supply of water



- Ensure that we are able to maximise our ability to use our existing sources of water fully. This includes being able to make full use of imports of water from neighbouring water companies where cost efficient. We also plan to deliver a programme of network infrastructure improvements that will help us to move water to areas where customers need it when they need it. We call this 'Supply 2040'.
- In the longer term, we are planning to develop a reliable mix of regional strategic solutions that include surface water (taking water from reservoirs and rivers) and water transfer schemes.
- Our approach allows us to manage the available water resources more efficiently, reduce any potential impacts on the environment and enhance our ability to cope with different types of weather and climatic events such as severe drought.
- We plan to do more work with our regional partners to progress our understanding of the following strategic solutions for our Central region:
 - Building a new reservoir in Oxfordshire, which we refer to as the South East Strategic Reservoir. This would provide an extra 100 million litres of water per day by the late 2030s. Alongside this scheme we will also be working on regional strategic transfer routes of water from the River Thames to move this into our area for treatment and supply.
 - A transfer of water via the Grand Union Canal which could provide an additional 50 million litres of water per day to customers either in the longer term or as an alternative to the reservoir development.
 - An alternative strategic transfer solution from South Lincolnshire that could provide up to 100 million litres of water per day to customers if required in the longer term.



- For all of these strategic options, we will need to collaborate with neighbouring water companies or other parties to secure the additional resources needed.
- With our partners, we have ensured that these strategic options form part of a coherent long term regional strategy for the South East of England.



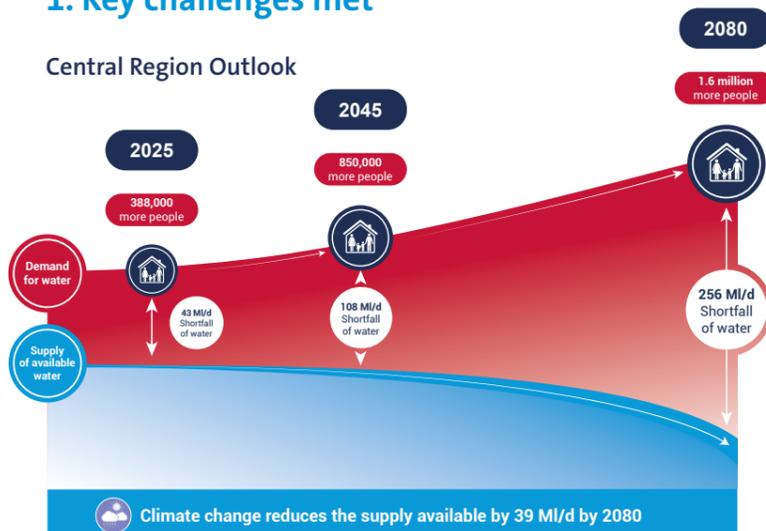
- Our Plan will help us to be better prepared to cope with drought events. Currently we estimate that there is around a 60% chance we would have to resort to exceptional measures to manage drought, such as the use of Permits or Orders that would temporarily increase abstraction and hence affect the environment, or even Emergency Drought Orders to restrict customer use through standpipes. The investments described in this plan will significantly reduce this risk to a 25% chance (as a one-off event) over the next sixty years (2020 - 80).

Our Plan for the Central region

Our Plan sets out how we will provide a reliable, resilient, efficient and affordable water supply to customers from 2020 to 2080, whilst helping to protect the environment.

1. Key challenges met

Central Region Outlook



Our Plan addresses the need to balance the availability of water supply with the demand for water from customers. Without action, we face the risk of a significant shortfall of water in the future in this region due to population growth and climate change. We also want to help protect the environment and improve the resilience of our water supplies to droughts and other challenges.

2. Our Plan:

- Is adaptive, flexible and supported by customers and stakeholders
- Improves drought resilience of water supplies for customers
- Contributes to the protection of rare Chalk stream habitats by reducing abstraction from Chalk sources
- Prioritises reducing demand and is innovative
- Ensures timely delivery of the appropriate strategic supply infrastructure
- Remains affordable to ensure the best value for customers now and in the long term for future generations.

MI/d = million litres of water per day

Use of existing shared Anglian reservoir supply at full capacity by 2024/25

Grand Union Canal option expected 2050 onwards

'Supply 2040' transfer schemes to move water north

South East Strategic Reservoir option

- 50 MI/d (expected late 2030s)
- Further 50 MI/d in 2050+

3. Protecting the environment

We will reduce the amount of water we take from existing Chalk sources and not develop any new Chalk groundwater sources in our Central region.



4. Our proposals to reduce the demand for water



Leakage

We are committed to reducing leakage. In 2015, leakage was around 21% (189 MI/d) of the water we put into supply. By 2025 we plan to have reduced this to 15%. We will continue to reduce this to between 11% and 13% of the water we put into supply by 2045, in an affordable way for customers. Overall this means a reduction of nearly 50%.



Water use per person (Per Capita Consumption – PCC)

We will put in place actions to help customers reduce their water use from an average of 152 litres of water per person per day to 129 litres by 2025. We aim to reduce water use to between 110 and 120 litres per person per day by 2045, if this is affordable for customers and delivered in a way that is acceptable to them.

5. Our proposals to increase supply for water

Developing strategic supply options and resilience

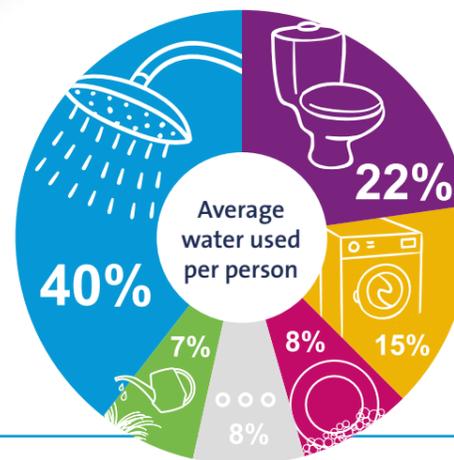
- 'Supply 2040' – a programme that delivers network infrastructure improvements that will help us to move water to where and when it is needed
 - ➔ Maximise use of our existing sources of water, including full use of imports of water
 - ➔ Building a new reservoir in Oxfordshire, which we refer to as the South East Strategic Reservoir, to provide an extra 100 MI/d by the late 2030s
 - ➔ A transfer of water via the Grand Union Canal which could provide an additional 50 MI/d in the longer term or as an alternative to the reservoir development
 - ➔ An alternative strategic transfer solution from South Lincolnshire that could provide up to 100 MI/d if required in the longer term.

Collaboration with neighbouring water companies

We will continue to collaborate with neighbouring water companies and other parties to secure the additional resources needed. We have ensured with our partners, that these strategic options form part of a coherent long term regional strategy for the South East of England.

Improving resilience to droughts

We estimate that without taking action, there is around a 60% chance over the next 60 years we would have to resort to exceptional drought management measures, such as standpipes. We propose investing to reduce this to around a 25% chance (1 in 200 year drought event).



Our actions will include:

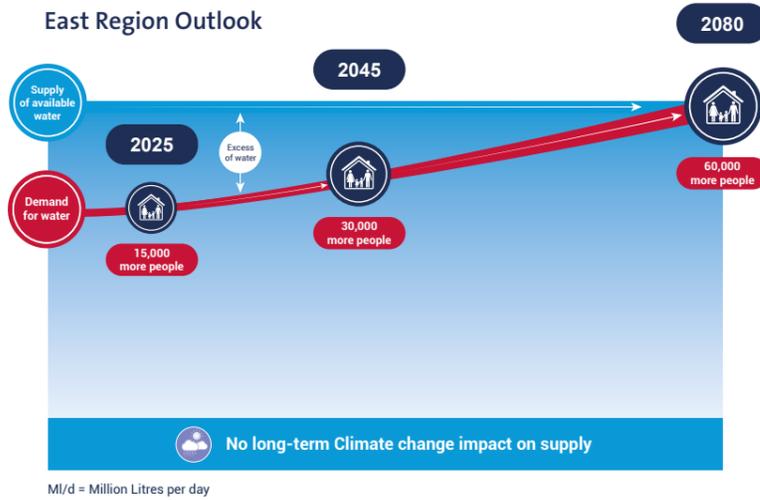
- Installing more water meters in homes and businesses
- Providing customers with more regular information on how much water they are using
- Providing customers and communities with water audits to encourage them to become more water efficient
- Supporting a national water efficiency campaign and work with Government to introduce new policies to reduce consumption
- Working with retailers to improve water efficiency of businesses.

Our Plan for the East region (Brett Community)

Our Plan sets out how we will provide a reliable, resilient, efficient and affordable water supply to customers from 2020 to 2080, whilst helping to protect the environment.

1. Key challenges met

East Region Outlook



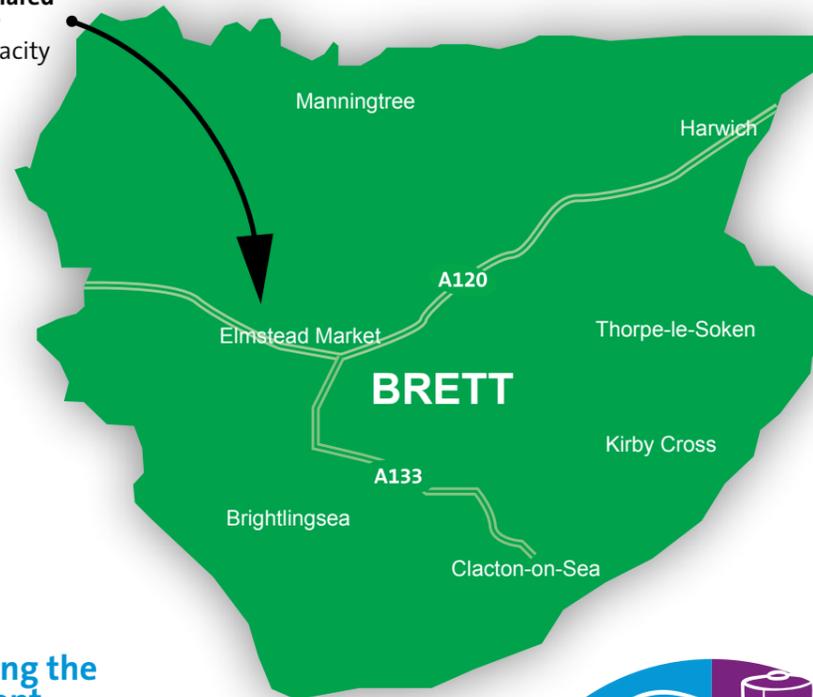
Our Plan addresses the need to balance the availability of water supply with the demand for water from customers. Our East region has sufficient water for the duration of the planning period by only focusing on reducing the demand for water. There is no need to take action to increase the supply of water for this area. However, we do want to help protect the environment and improve the resilience of our water supplies to droughts and other challenges.

2. Our Plan:

- Is adaptive, flexible and supported by customers and stakeholders
- Improves drought resilience of water supplies for customers
- Contributes to the protection of rare Chalk stream habitats by reducing abstraction from Chalk sources
- Prioritises reducing demand and is innovative
- Ensures timely delivery of the appropriate strategic supply infrastructure
- Remains affordable to ensure the best value for customers now and in the long term for future generations.

MI/d = million litres of water per day

Use of existing shared Anglian reservoir supply at full capacity by 2024/25



3. Protecting the environment

Our Plan includes an allowance for reduction of the amount of water we take from Chalk catchments in our East region.



4. Our proposals to reduce the demand for water



Leakage

We are committed to reducing leakage. In 2015, leakage was around 21% (189 MI/d) of the water we put into supply. By 2025 we plan to have reduced this to 15%. We will continue to reduce this to between 11% and 13% of the water we put into supply by 2045, in an affordable way for customers. Overall this means a reduction of nearly 50%.



Water use per person (Per Capita Consumption – PCC)

We will put in place actions to help customers reduce their water use from an average of 152 litres of water per person per day to 129 litres by 2025. We aim to reduce water use to between 110 and 120 litres per person per day by 2045, if this is affordable for customers and delivered in a way that is acceptable to them.

5. Our proposals to increase supply for water

Developing strategic supply options and resilience

We will manage the water resources available to us more efficiently, reducing any potential impacts on the environment and enhance our ability to cope with different types of weather and climatic events, such as severe drought. Under our Plan for our East region we are able to do this primarily based on our demand management activities alone.

There is a risk that we will face substantial (up to 15-20 MI/d) reductions in abstraction for our sources within the River Brett catchment in the near term. If that does occur then we would need to construct a desalination plant on the East coast, or if the timing and the volumetric reduction changes, a shared alternative option. We will work closely with the Environment Agency to protect supplies and the environment.

Collaboration with neighbouring water companies

We will continue to collaborate with neighbouring water companies or other parties to ensure that these strategic options form part of a coherent long term regional strategy for the East of England.

Improving resilience to droughts

We estimate that without taking action, there is around a 60% chance over the next 60 years we would have to resort to exceptional drought management measures, such as standpipes. We propose investing to reduce this to around a 25% chance (1 in 200 year drought event).

Our actions will include:

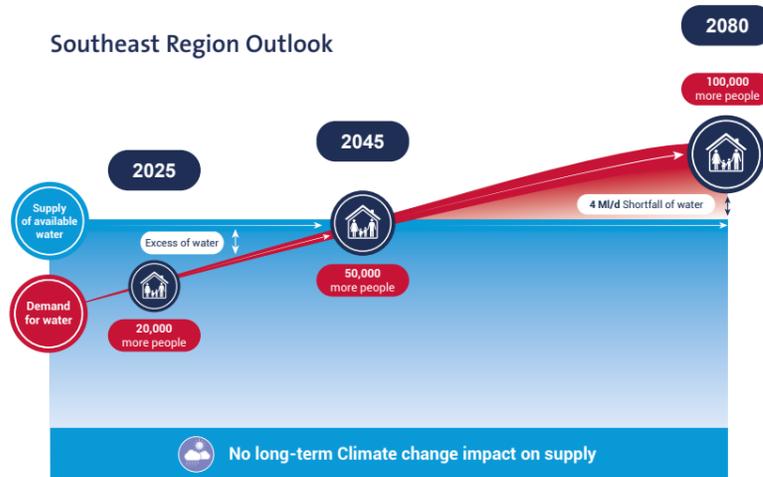
- Installing more water meters in homes and businesses
- Providing customers with more regular information on how much water they are using
- Providing customers and communities with water audits to encourage them to become more water efficient
- Supporting a national water efficiency campaign and work with Government to introduce new policies to reduce consumption
- Working with retailers to improve water efficiency of businesses.

Our Plan for the Southeast region (Dour Community)

Our Plan sets out how we will provide a reliable, resilient, efficient and affordable water supply to customers from 2020 to 2080, whilst helping to protect the environment.

1. Key challenges met

Southeast Region Outlook



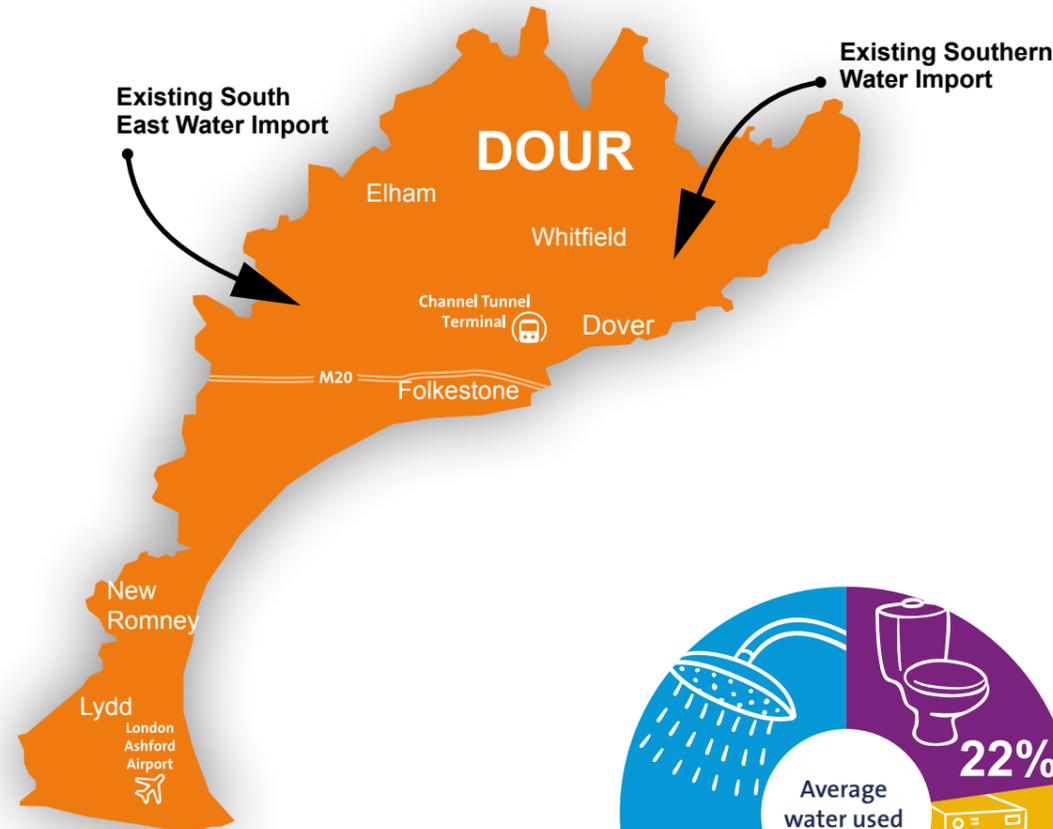
MI/d = Million Litres per day

Our Plan addresses the need to balance the availability of water supply with the demand for water from customers. Without action, we face the risk of a shortfall of water in the future in our Southeast region due to population growth and climate change. We also want to help protect the environment and improve the resilience of our water supplies to droughts and other challenges.

2. Our Plan:

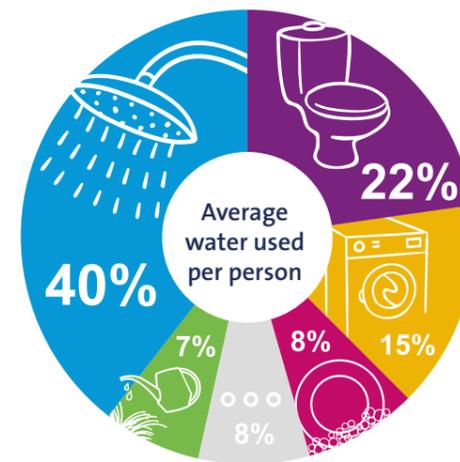
- Is adaptive, flexible and supported by customers and stakeholders
- Improves drought resilience of water supplies for customers
- Contributes to the protection of rare Chalk stream habitats by reducing abstraction from Chalk sources
- Prioritises reducing demand and is innovative
- Ensures timely delivery of the appropriate strategic supply infrastructure
- Remains affordable to ensure the best value for customers now and in the long term for future generations.

MI/d = million litres of water per day



3. Protecting the environment

We are stopping the reliance on drought permits for additional abstraction to meet our 1 in 200 year drought resilience commitment from March 2024.



4. Our proposals to reduce the demand for water



Leakage

We are committed to reducing leakage. In 2015, leakage was around 21% (189 MI/d) of the water we put into supply. By 2025 we plan to have reduced this to 15%. We will continue to reduce this to between 11% and 13% of the water we put into supply by 2045, in an affordable way for customers. Overall this means a reduction of nearly 50%.



Water use per person (Per Capita Consumption – PCC)

We will put in place actions to help customers reduce their water use from an average of 152 litres of water per person per day to 129 litres by 2025. We aim to reduce water use to between 110 and 120 litres per person per day by 2045, if this is affordable for customers and delivered in a way that is acceptable to them.

5. Our proposals to increase supply for water

Developing strategic supply options and resilience

We will manage the water resources available to us more efficiently, reducing any potential impacts on the environment and enhance our ability to cope with different types of weather and climatic events, such as severe drought. Under our Plan for our Southeast region we are able to do this mainly based on our demand management activities, plus extension of our supply arrangements with our neighbouring water companies. Some licence changes and infrastructure schemes are required to improve smaller supply and enables us and enables us to address needs during periods of peak demand.

Collaboration with neighbouring water companies

We will continue to collaborate with neighbouring water companies or other parties to ensure that these options form part of a coherent long term regional strategy for the South East of England.

Improving resilience to droughts

We estimate that without taking action, there is around a 60% chance over the next 60 years we would have to resort to exceptional drought management measures, such as standpipes. We propose investing to reduce this to around a 25% chance (1 in 200 year drought event).

Our actions will include:

- Installing more water meters in homes and businesses
- Providing customers with more regular information on how much water they are using
- Providing customers and communities with water audits to encourage them to become more water efficient
- Supporting a national water efficiency campaign and work with Government to introduce new policies to reduce consumption
- Working with retailers to improve water efficiency of businesses.

How to give your views

We are running a further consultation on our revised draft plan which is your opportunity to tell us if you support what we are proposing and suggest alternative ideas and solutions. The consultation is open to customers and stakeholder organisations.

The consultation runs from the 1 March to the 26 April 2019 and you can give us your views in three ways:

1. Complete the online response form at:
www.affinitywater.co.uk/haveyoursay
2. Post us your response to the further consultation questions detailed on pages 16 to 18 to the address below:

Water Resources Management Plan
Affinity Water Limited
Tamblin Way
Hatfield
Hertfordshire AL10 9EZ

3. Send your views in writing directly to the Secretary of State Defra. This can be done either by email or post. Representations by e-mail should be sent to:

water.resources@defra.gsi.gov.uk and be titled:
Affinity Water draft water resources management plan consultation

Please copy your email to us at:
WRMP.Consultation@affinitywater.co.uk
the Environment Agency at:
Water-Company-Plan@environment-agency.gov.uk
and OFWAT at: **wrmp@ofwat.gsi.gov.uk**

Representations by post should be sent to:

Water Services
Affinity Water Draft Water Resources Management Plan Consultation
Department for Environment Food and Rural Affairs
3rd Floor
Seacole Building
2 Marsham Street
London
SW1P 4DF

A paper copy of our revised draft plan is available at our main office in Hatfield. To book an appointment please email: **WRMP.Consultation@affinitywater.co.uk**

What happens next?

At the end of the consultation we will carefully consider all the new comments we receive.

Our revised draft plan will then be submitted to the Secretary of State, Defra in May 2019 for approval. We expect to publish our final plan in June 2019.

We will publish a Statement of Response. This will detail how we have changed the plan because of the comments made or give an explanation if we have not been able to. This will be published on the Affinity Water website and promoted via social media in June 2019.

Further Consultation questions

To send us your response by post please print and complete the following questions.

If you require more space for your answer(s) please use the notes pages provided and number each of your answers.

Post your response to the address below:

Water Resources Management Plan
Affinity Water Limited
Tamblin Way
Hatfield
Hertfordshire AL10 9EZ

How we are planning to meet the changing needs of the future

We recognise that the future security of water resources is uncertain, due to population growth, the need to leave more water in the environment and the impact from climate change. There is also uncertainty around how water efficient our customers will be in the future and potential changes in related government and regulator policy.

- 1. Our Plan allows us to adapt to these uncertainties and deliver solutions. We are proposing an approach that focuses on reducing demand for water and developing long-term strategic regional water supply options where we would jointly build a new reservoir with a neighbouring water company and transfer water using a canal.**

Do you agree with this approach?

Yes (please state why)

No (please state why)

Leakage

We are committed to reducing leakage. In 2015, leakage was around 21% (189 million litres of water per day) of the water we put into supply. By 2025 we will have reduced this down to 15%.

- 2. In our Plan, we aim to reduce leakage to between 11% and 13% by 2045, provided we can do it in an affordable way for customers. This would be a reduction of nearly 50% since 2015.**

Do you agree with this proposal?

Yes No

Please state a reason for your choice:

Further Consultation questions continued

Options to increase the supply of water

To ensure there is enough water available for future generations and be better prepared to cope with drought, our Plan is proposing two new supply options – a reservoir and a transfer of water via a canal.

3.a) We are proposing to construct a new storage reservoir in Oxfordshire, called the South East Strategic Reservoir, in partnership with Thames Water. The River Thames will be used to transfer water into the area we serve. This will provide an extra 100 million litres of water per day by the late 2030s.

Do you agree with this proposal?

Yes No

Please state a reason for your choice:

3.b) We will continue to investigate the potential to transfer treated wastewater via the Grand Union Canal. This would bring water to the area we serve from near Birmingham, where there is a surplus of water available. This could provide an additional 50 million litres of water per day to customers either in the longer term or as an alternative to the reservoir development.

Do you agree with this proposal?

Yes No

Please state a reason for your choice:

Reducing the amount of water used by each person per day

We have committed to support customers to reduce the amount of water they use each day from the current average of 152 litres per person per day to 129 litres by the end of 2025.

4. In our Plan, we are aiming to reduce this to between 110 and 120 litres per person per day by 2045, but only if this is affordable for customers and delivered in a way acceptable to them

Do you agree with this proposal?

Yes No

Please state a reason for your choice:

Cost of our Plan

5. Delivering our Plan will mean a rise in customer bills from the 2018 annual average of £171.70 to £193.70 in 2080. This is an increase of 37 pence per year. This figure does not include inflation or wastewater (sewerage) bills.

Is this proposal acceptable?

Yes No

Please state a reason for your choice:

Further Consultation questions continued

6. Do you have any other comments you would like us to consider? Please state below:

About you

We are keen to ensure we hear the views of as broad a range of customers and stakeholders as possible. It would therefore be very helpful for us to know a bit about you.

Are you responding to this survey as:

An Affinity Water household customer

A business customer

A stakeholder of Affinity Water (please specify organisation)

A regulator

Other (please state)

What is the first part of your postcode? e.g. AL10

What is your email address?

If you have provided your email address we will send you a report of this consultation, no personal information will be published.

How did you hear about this consultation?

Email from Affinity Water

Social media i.e. Facebook, Twitter, LinkedIn

Video

Local newspaper

Affinity Water website

Other website (please state):

Leaflet

Other (please state):

Privacy notice

The information you provide about yourself will help us understand the views of different types of customers and stakeholders in the development of Water Resources Management Plan. It will be securely stored for one year and only held for the purposes of this project, after which it will be securely disposed of. For more information about privacy please visit: www.affinitywater.co.uk/privacy-notice.aspx

By submitting your response, you agree to us using your response in our results. We will not publish names of individuals but may refer to names of organisations.



How to get in touch

www.affinitywater.co.uk

Post: Affinity Water Limited, Tamblin Way, Hatfield, Hertfordshire AL10 9EZ

Telephone: 01707 268111 (main switchboard)

 facebook.co.uk/affinitywater

 [@affinitywater](https://twitter.com/affinitywater)

 Youtube.com/AffinityWater

www.affinitywater.co.uk


Affinity Water
Your local supply, on tap