

Appendix 11: Campaign to Protect Rural England (CPRE), Oxfordshire

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1.1	Representation	<p><i>Q1. 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?</i></p> <p>CPRE Oxfordshire agrees completely that we must protect our vulnerable and important chalk streams, however, we believe this can be done more quickly and more cheaply without the need for a major reservoir. We agree wholeheartedly about an approach which focuses on reducing demand (see Q2 and Q4 below). We, however, fundamentally disagree with the need and utility of the South East strategic reservoir (see our comments on Q3a and 6 below).</p> <p>We believe this plan is flawed. The population forecasts, on which the entire plan is based, are wildly exaggerated. The Office for National Statistics (ONS) population projections show for the South East of England a growth rate of 0.7% per year in 2016/17 dropping to less than 0.4% by 2040. Assuming a 0.5% growth rate we would only see a 4% population growth by 2025 and 14% by 2045. These projections are in stark contrast to those assumed in this plan (12% by 2025 and 27% by 2045 – 2 to 3 times greater). Thus we would expect less than half the number of new people – probably a million less, reducing the future requirement by over 100 million litres per day.</p> <p>As we understand it the population projections used by Affinity (and the other Water Authorities) are based on Local Authority plans. We know these are politically motivated and ‘aspirational’. Historically growth is only about 40% of these ‘aspirational’ plans. While population projections are uncertain the ONS projections are our best estimates and reflect national and international trends of reducing fertility and a flattening of life expectancy. It is our view that it is irresponsible to base decisions about something as fundamental as water supply on projections which are known to be flawed.</p>
	Our Response	<p>We have followed required best practice and planned for growth as per Local Authority plans. Where we have made adjustments due to differences in baseline population and properties and the management of blocks of flats in the forecast, we have clarified this in our plan and technical reports.</p> <p>We recognise that high growth is only within the draft GLA plan, so this is not included in the forecast of baseline demand. Our fWRMP19 addresses GLA growth through inclusion of a “high-growth” scenario in our sensitivity testing. In the event of a “high-growth” scenario being realised we will rely on some of the less environmentally-damaging drought permits and will accelerate delivery of our first supply option to 2032. We would need a second strategic option by 2042 and a third strategic option within the 2080 time horizon.</p> <p>Additional growth from the CaMkOx development corridor has not been explicitly included as no planning figures are available at the moment but we will continue to review our forecasts as new information becomes available as reflected in our adaptive plan.</p>
	Summary of any change to our final WRMP	Our fWRMP19 addresses GLA growth through inclusion of a “high-growth” scenario in our sensitivity testing.
1.2	Representation	<p><i>Q2. 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?</i></p> <p>The proposal to reduce leakage is, of course, admirable but we feel it lacks ambition. OFWAT and the National Infrastructure Commission have set a target of 50% leakage reduction between 2020 and 2050, this Plan is only suggesting 40% reduction by 2050. Affinity has historically high levels of leakage (nationally, their leakage is 8.4 litres per property per day, whereas the national average, excluding Thames Water, who are by far</p>

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		the worst, is 6.3 litres per property per day) and a comparatively modern infrastructure so we feel Affinity's ambition should at least parallel, if not exceed, the industry norm.
	Our Response	<p>We fully support the ambitions to substantially reduce leakage by 2050. Our initial aim is to achieve a 50% reduction in leakage between 2015 to 2045. This 30-year programme to reduce leakage by 50% is planned to deliver five years earlier than most other water companies because we started the process in 2015, and will already have delivered a 14% reduction by 2020, followed by a further 18.5% reduction between 2020 and 2025. We will then aspire to achieve a higher level of reduction, to 57% from the 2015 position, which will allow us to reduce leakage by 50% from our 2020 position.</p> <p>Clarification of the 50% target and the ambition for 50% post AMP7 (i.e. 57% overall) is included in the fWRMP19 along with clarification of how we have handled mains renewals for leakage and trunk mains schemes. Explanation of how we will achieve leakage efficiencies and details of our leakage reduction strategy are provided in Technical Report 4.8: Leakage Strategy Report and referenced in the fWRMP19.</p>
	Summary of any change to our final WRMP	An update regarding leakage is provided in Chapter 6 and Technical Report 4.8: Leakage Strategy Report in the fWRMP19.
1.3	Representation	<p><i>Q3.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?</i></p> <p>While our priority must be to protect the chalk streams by substantially reducing abstraction from the aquifers (or even eliminating it altogether), we think this goal can be achieved by a combination of other, more environmentally-friendly schemes. These include:</p> <ul style="list-style-type: none"> • implementing the "Supply 2040" scheme as soon as possible, • fully utilising the existing supply from Anglian's Grafton reservoir • greater reductions in leakage (see answer to Q2 above) • reductions in demand through various means, including a faster roll-out of smart meters (see Q4) • greater water balancing measures, including with Thames Water (for instance, transferring up to 15ML/day from its Slough-Wycombe-Aylesbury zone at Sunnymeads, which we understand is in surplus until at least 2080). Also we support the proposal to bring water from Birmingham (covered in Q3b below). <p>We would also note that the exaggerated demand, resulting from the exaggerated population projections, exceeds the 100 ML/day which could be supplied from the reservoir. Thus we believe the SESR would be unnecessary. Building a massive reservoir with 30m high embankments and destroying a huge area of good quality farmland and countryside seems to us to be the least environmentally attractive option and should be avoided at all costs. We believe that the over-extraction of the chalk aquifer can be reduced (or eliminated) on a much shorter time scale, much cheaper and with less environmental damage by using the other options outlined above.</p>
	Our Response	We have included details of the timing and inclusion of schemes from our "Supply 2040" strategy in the fWRMP19, and shown how it affects individual WRZ supply-demand balances under all of our modelled futures within our Technical Report 4.9: Economics of Balancing Supply and Demand Modelling and Decision Making Process.

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		<p>In summary, all of the proposed AMP7 developments, which are detailed in our Business Plan, are required to support the transfer of 17Ml/d out of WRZ6 into WRZ4, or to enable the Graffham transfer enhancement. AMP8 (2025 to 2030) then contains our second stage transfer from WRZ6 to WRZ4, and finally we have a scheme to transfer water from WRZ1 to WRZ3 in the longer term. This is now more fully described in the main Plan document.</p> <p>Our Plan incorporates the individual elements of “Supply 2040” as early as they are needed to ensure that surpluses within individual WRZs are usefully transferred into other WRZs in the Central Region. The fWRMP19 supports the requirement to distribute water to areas of need, avoiding strategic deficits and surpluses. We will continue to plan investment as quickly as is necessary to avoid water deficits and surpluses, which will also avoid building strategic schemes earlier or later than is necessary.</p> <p>We have updated Technical Report 4.9: Economics of Balancing Supply and Demand Modelling and Decision-Making Process to include the most up to date assessment of our supply demand balance for each future which supports the timing of the requirement for the transfers. The individual balances within each WRZ for each future are provided as graphs within the technical report.</p> <p>We have provided further explanation of how we intend to continue the work on alternatives to preferred strategic regional options in our plan e.g. liaison for the STT and water trading options with Thames Water.</p>
	Summary of any change to our final WRMP	Updated Chapter 5, Chapter 6 and Technical Report 4.9.
1.4	Representation	<p><i>Q4. 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?</i></p> <p>Any measures to reduce consumption are to be welcomed, however, Affinity has placed insufficient priority on measures that could reduce individual consumption toward industry best practice. Its metering rate is below the industry average and it has only managed to increase metering by 3% over the last 4 years – again well behind many other companies. Affinity’s medium and long-term plans aim for 80% metering by 2025 and 90% by 2045. Some companies, e.g. Anglian Water have found that installing ‘smart meters’ reduced usage another 11% beyond the savings achieved by installing dumb meters. Affinity plan to continue installing dumb meters for several years and instead should aim to fit smart meters much sooner. The NIC recommend widespread smart meter installation by 2035, and Anglian Water aims for 95% meter penetration by 2030. Affinity should aim to achieve such targets.</p>
	Our Response	<p>We will reduce PCC to 129 litres per head per day (l/h/d) by 2025 through the continuation of our existing Water Saving Programme and employing new demand management options (this is the largest PCC reduction in the industry for this period). Significant additional explanation and quantification has been added to Chapter 6 of the fWRMP19 to demonstrate how we will meet the 129 l/h/d AMP7 target and the strategy beyond that.</p> <p>We anticipate 80%-meter penetration by 2025 and 90% meter penetration by 2045. We recognise this represents a lower target than at the dWRMP19. This is largely as a result of the higher than anticipated need to install internal rather than external meters, and taking on board experience to date around the practicalities of installing meters internally as well as wider industry learning. An explanation of the reasons for, and very limited implications of, the slower rate of metering as part of the Water Saving Programme are included, along with justification of the approach to smart metering rollout in Chapter 6.2 Our demand management strategy in the fWRMP19.</p>
	Summary of any change to our final WRMP	Updated Chapter 6 in fWRMP19.

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1.5	Representation	<p>Q5. <i>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?</i></p> <p>We do not believe the SESR is likely to provide value for money. There is the considerable risk of cost inflation (a very common phenomena on large infrastructure projects) and there is also considerable risk that the Reservoir will not be needed (if, for example, the projected population growth does not materialise).</p>
	Our Response	<p>Our analysis shows that for all four futures, the EBSD modelling selects the SESR option as the clearly preferred option for the first strategic supply scheme. We recognise, however, that there are a number of risks associated with this strategic option and there are uncertainties around the scope, operation and viability of the other strategic options. All of these uncertainties will need to be resolved to a satisfactory extent before our 2023 decision point.</p>
	Summary of any change to our final WRMP	Updated Chapter 5.
1.6	Representation	<p>Q6. <i>Do you have any other comments you would like us to consider? Please state below:</i></p> <p>There are good reasons to believe that the reservoir would <u>not</u> provide the resilience required. Fully operational the reservoir would only provide water for about 18 months before becoming empty. While this is fine to smooth out seasonal variations and short-term droughts it would fail in a major two to three year drought (and then take a considerable time to recover). Such droughts are possible, for example in the 1890s, and may be more common in the future with climate change. It is worth noting that the reservoir provides no new water to the Thames valley, in contrast to canal transfers, water reuse and desalination.</p>
	Our Response	<p>We have reviewed the technical reports relating to the drought and climate resilience of the SESR provided to us by Thames Water, which were peer reviewed through their technical stakeholder working groups, and consider that these clearly demonstrate that the SESR can provide the quoted yield reliably across a wide range of drought severities. We note that drought severity within those documents is as measured for the Thames Water supply system. We have therefore also carried out an initial review of the yield that we can expect from 50Mm³ of storage (one third of the reservoir capacity) under our drought design condition and confirmed that this should provide us with the expected 100MI/d benefit. However, more detailed modelling, which will need to account for the ‘secondary benefit’ provided by increased effluent returns to Thames Water’s intakes (see response Error! Reference source not found.), plus the differences in timing and duration between our critical drought events and Thames Water’s critical drought events, is required before we can confirm the benefits from the scheme. This modelling is included within our AMP7 joint working investigations and is due to report before the crucial 2023 decision point.</p>
	Summary of any change to our final WRMP	N/A