

Appendix 13: Central Hertfordshire Green Corridor Group

1. Central Hertfordshire Green Corridor Group		
1.1	Representation	<p>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.</p> <p>Do you agree with this approach? Yes</p> <p>We agree with the need to reduce demand for water. But not with how Affinity are applying it in the dWRMP, which has the following significantly shortcomings.</p> <p>Specifically, figure 18 page 50 (of main document) shows the assessment of the risk of a dry year reducing deployable output across the plan period. This appears to be based on “average dry years”. This risks making the same basic mistake which the finance industry fell foul of in sleepwalking into the 2008 crash. Outlying statistical events were then discounted as “Black Swan” events, too extreme to model or plan for. For a matter as critical as public water supply Affinity’s WRMP should fully address such risks. Their dry year planning should be based on the worst historic (1999 in this area) plus forecasts for future water demand and supply with an adequate allowance for climate change.</p> <p>Moreover and most significantly, we have severe doubts about Affinity’s assessment of the risks and effectiveness of the measures they propose to adopt. There are high risks of these not being as effective as they optimistically suggest especially in the early period. In particular, their front loading of the measures and their estimated impacts significantly downplays and fails to highlight the risks in the supply and demand balance in the short term.</p> <p>Specifically the dWRMP presents a baseline which shows a significant increase in water consumption and a major shortfall in the supply and demand balance in the long term. But we have severe doubts about their forecasts of demand falls in the short term, which appear to be based on unrealistically optimistic assumptions about large increases in metering.</p> <p>Therefore we worry that there are high risks of significant shortfalls in demand arising much earlier than Affinity set out. Affinity must provide clearly and transparently a forensic scrutiny of these unrealistic short term assumptions. The WRMP should then diligently set out these risks and what they would do if their optimistic reductions in demand do not materialise.</p> <p>The dWRMP makes no cross checking reference against the EA’s earlier assessment which identified Affinity as having seriously water stressed catchments both currently and in the future with expected future growth in abstractions and climate change¹. Their water body water stress calculation is based on the Water Exploitation Index (WEI+) developed by the European Environment Agency – see Table below. Therefore we would expect the Environment Agency and Ofwat to scrutinise and severely criticize Affinity’s dRBMP as failing to highlight such risks and implement effective measures to address them.</p> <p><u>Environment Agency and Natural Resources Wales (2013). Water Stressed areas: Final Classification. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/244333/water-stressed-classification-2013.pdf.</u></p> <p>Table 8 at para 3.4.26 (in main document) lists a large number of existing abstraction sites in Hertfordshire at risk of environmental damage from low flow and which they may be investigating to reduce abstraction from. But we are not convinced that these impacts are adequately addressed. Indeed the report acknowledges this in paragraph 5.7.5 on page 84! Moreover, ecological evidence given at recent RBMP partnership workshop on the problems from abstraction at these sites are not fully reflected in the dRMP. As Fergal Sharkey rightly and clearly stated at this workshop , Affinity must adopt a much more robust approach and implement strong and effective measures to reduce consumption and hence abstractions to protect these sites. This must be an essential priority first step in any two step process prior to enhancing the ecological state of these sites.</p>

¹ Environment Agency and Natural Resources Wales (2013). Water Stressed areas: Final Classification. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/244333/water-stressed-classification-2013.pdf

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	Our Response	<p>Assessment of critical event deployable output:</p> <p>Our assessment of deployable output under a 1 in 200 year drought event has been quantified through the application of advanced statistical weather generation methods, plus associated modelling of groundwater levels and the capability of individual boreholes. These generated events are well beyond the worst historic in terms of severity, as detailed within our Deployable Output technical report. We have therefore been able to consider the risk as presented under this level of drought severity. For droughts beyond the 1 in 200 year level we will have the option of using Drought Orders and Permits, which means we would only have to resort to measures such as standpipes or rota cuts under very extreme events. We therefore consider that our supply side risk management is appropriate for protecting our water supplies.</p> <p>Unrealistic Demand Management</p> <p>We have expanded on our description and quantification of demand management measures within Chapter 6 of our fWRMP19, which demonstrates how we intend to reduce PCC to 129l/h/d by the end of AMP7, and achieve the different targets under our adaptive futures beyond that. In addition to this we have also assumed a high level of 'Target Headroom' risk allowance in the early years of our Plan (this is highlighted in the Ofwat representation on our Plan). This allowance, combined with the fact that we have explicitly modelled different future scenarios to allow for the medium-term risks inherent in our extensive demand management programme means that we are confident that we have appropriately accounted for the risks associated with demand management in our Plan.</p> <p>Water Stress</p> <p>The level of water stress in our area is reflected in the level of sustainability reductions that we have committed to in AMP7, and has allowed us to embark on the compulsory metering programme that we are rolling out between 2015 and 2025. In terms of future risks, we have appropriately calculated the impact of climate change on our supplies, and modelled an extended sustainability reduction programme to make sure that we can adapt if reductions beyond our 'challenging' future are required after 2025. This is described in Chapters 5 and 6 of our update Plan, and models a scenario where a further 40MI/d of abstraction reductions are introduced in the 2025 to 2035 period. It includes a 'rapid development' pathway to manage high growth and/or high levels of sustainability reductions, which potentially involves acceleration of the Grand Union Canal (GUC) transfer or a water trading option for delivery by 2032 (these are the only options with shorter development times), but with customer consultation if that is not a best value solution.</p>
	Summary of any change to our final WRMP	Updated Chapter 6 in fWRMP19.
1.2	Representation	2. Leakage
		<p>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%.</p> <p>In our Plan, we aim to reduce leakage to between 11% and 13% of water we put into supply by 2045, provided we can do it in an affordable way for customers. This would be a reduction of nearly 50% since 2015.</p> <p>Do you agree with this proposal: Yes</p> <p>But Affinity's summary document fail to spell out just how they will achieve this. The main technical document contains some information but this is not presented in a clear, comprehensible way without jargon.</p>

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	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	Technical Report 4.8: Leakage Strategy Report and referenced in the fWRMP19.
1.3	Representation	<p>Options to increase the supply of water</p> <p>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.</p> <p>Do you agree with this proposal: NO</p> <p>Affinity's dRMP fails to set out quantitatively the high costs of transferring this water to their zones (in both financial terms and also environmental from greenhouse gas emissions from the high energy consumption - water is heavy to transport). Affinity must highlight these shortcomings of this approach so that it is not considered incorrectly to be a panacea by key local decision-makers such as planning authorities and Inspectors carrying out examinations of Local Plans – as happened in recent Examination discussions of Welwyn Hatfield Borough Council's Local plan. Affinity cannot rely principally on such transfers from neighbouring water companies who are also likely to suffer from supply/demand shortfall especially in the long run – see table above in response to Qu 1.</p> <p>Affinity's customers have a higher per capita water consumption than in some other parts of the country. Therefore there must be greater emphasis on demand reductions.</p>
	Our Response	<p>In relation to the costs and impacts involved, these are set out clearly in our decision making process in Chapter 5, and the costs and carbon emission associated with developing supply side options are presented within Chapter 6. We have also tested the resulting bill impacts with our customers and received a high level of support for our proposals.</p> <p>In terms of regional impacts, there is already a regional modelling group (Water Resources in the South East) that we use to cross compare proposals on a south east regional basis, and our plan contains details of extensive investigations plus economic and resilience testing that will be completed prior to the confirmation of a preferred strategic option in 2023. On a regional basis we are therefore confident that the selected option (currently the SESR) will be robust and form part of a 'best value', resilient solution.</p> <p>Demand reductions – see response to 1.2 and 1.5.</p>
	Summary of any change to our final WRMP	N/A
1.4	Representation	<p>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</p>

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		<p>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.</p> <p>Do you agree with this proposal: NO</p> <p>See response to 3a which applies even more so here given the higher distances involved in transporting the transferred water.</p>
	Our Response	Our response to this comment is similar to the response surrounding the SESR above. The costs and impact of the scheme have been clearly laid out, tested with customers and consulted on with stakeholders. We will also be carrying out investigations in parallel to the SESR investigations to confirm costs and viability prior to our 2023 key decision point.
	Summary of any change to our final WRMP	N/A
1.5	Representation	<p>Reducing the amount of water used by each person per day</p> <p>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.</p> <p>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</p> <p>Do you agree with this proposal: Yes BUT</p> <p>We agree that water consumption needs to be reduced to these target levels. But Affinity's dWRMP fails to set out clearly, substantively and convincingly what specific measures they will implement to achieve the desired reductions, how effective the measures will be in practice and what Affinity will do if their target levels of demand reduction are not achieved. Changing people's behaviour to achieve such reductions is a difficult challenge – as Affinity's dRMP acknowledges in para 7.3.4 of the main document in stating that the savings are ambitious and potentially risky. But apart from going on to say that therefore greater measures are needed to meet the challenges, the dRBMP does not properly set out just what these greater measures should be.</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> <p>Our fWRMP19 Section 6.2 describes our demand management strategy in detail, the main components of which are:</p>

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		<ul style="list-style-type: none"> • reducing PCC of household customers • reducing non-household demand • reducing leakage <p>We have recently launched our ‘manifesto’ of water efficiency and have already started public events (such as our #whynotwater campaign), which seeks to gain public and NGO support for initiatives such as Water Efficient Labelling Schemes (WELs) and hence influence local authorities and national bodies to support initiatives that will inherently improve the efficiency of water using devices to reduce demand.</p>
	Summary of any change to our final WRMP	Updated Chapter 6 in fWRMP19.
1.6	Representation	<p>Cost of our Plan</p> <p>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.</p> <p>Is this proposal acceptable? NO</p> <p>Affinity’s dRMP fails to identify and quantify the significant additional water consumption from specific sources – most notably the significant amounts of additional house building proposed in the Local Plans for its zones. Moreover, they fail to assign the significant additional water resource management costs associated with this house building to the house building proposal accordingly.</p> <p>Instead Affinity are spreading these additional costs over all consumers who are thereby cross-subsidising developers so that the rise in water bills for existing customers is higher than they ought to be.</p>
	Our Response	<p>We have not specifically identified the growth associated with new houses in our demand forecasts as this is not required in the WRMP Planning Guidance. The principle of sharing costs across customers via the Business Plan Determination process is fundamental to the regulated water industry in England and Wales. This covers all aspects of water supply, where cross-subsidies are used to allow us to provide a consistent level of service to all customers across a wide range of metrics, from water quality (some customers use water from more expensive treatment works, but these costs are shared) through to pressure (schemes to alleviate low pressure issues are often highly localised and expensive, but shared across the customer base). There is no reason why costs associated with the provision of adequate water resource should be different.</p>
	Summary of any change to our final WRMP	N/A
1.7	Representation	<p>6. Do you have any other comments you would like us to consider? Please state below:</p> <p>Yes.</p> <p>Affinity’s dWRMP has the following serious failures regarding the impacts and implications of the significant housing developments proposed in the Local Plans in Affinity’s Water Resource Zones:</p> <p>1. Affinity fail to set out substantively the extent to which these proposed housing developments will contribute to the increases in water consumption and the shortfalls in supply that Affinity’s dWRMP sets out for the long term but in fact underestimate in the short term (see above) and the risks of such shortfalls</p>

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		<p>arising in both the short and the long terms.</p> <ol style="list-style-type: none"> 2. They fail to set out and substantiate the increased water resource management costs that these housing developments would cause. Specifically, p. 46. Para 3.4.56 (of main document) highlights the spreading bromate contamination risks for aquifers extending to Hatfield. But they then fail to highlight the implications and costs of this for the proposed housing developments in WHBC's Local Plan in terms of the costs of having to seek and ship in water from other aquifers to dilute the contaminated water in these aquifers. The significance of this problem was highlighted recently by the Secretary of State for Housing, Communities and Local Government (James Brokenshire) upholding Hertfordshire County Council's decision to refuse planning permission for a quarry at Bengeo Field, Hertford in the face of the local community's concerns, including the threats to the local water supply, and the loss of wildlife habitats. In his decision, the minister backed the local group's views that the proposed project represented a major threat to water supplies – see https://bit.ly/2GkjJn. But Affinity's dWRMP fails to give due recognition to the significance of these problems. 3. Most significantly, the dWRMP fails to insist that strict and effective controls are imposed as essential conditions on these proposed new housing developments. This should include water saving measures, rainwater harvesting and SUDS etc. Integrating such measures into the housing developments can increase their effectiveness and efficiency and is much cheaper than subsequent retrofitting savings measures in existing buildings. But the dWRMP is unclear or silent on this. For example, specifically it is not clear what is meant by "we expect the EA to use its powers to mitigate this risk (highlighted above) – "as far as reasonable and practicable". 4. In its advice to the Local Planning authorities and Inspectors for the Independent examination of Local plans, Affinity has hidden behind its duty to supply water. Affinity has only given them bland assurances and the misleading impression that there are no water resource and supply problems concerning the proposed housing developments, which is belied by the evidence in and behind the dWRMP. <p>It is a gross dereliction of their duty that Affinity have failed to inform Local Planning authorities and Inspectors of the problems and risks of shortfalls in water supply vs the increasing demand (including by the proposed housing developments). Moreover, Affinity should insist that the measures highlighted in point 3 above are strictly imposed as essential conditions on these proposed new housing developments to help reduce the water resource and supply problems that they would otherwise cause. The dWRMP – properly carried out to address the problems highlighted in response to qu 1 regarding the risks in the short term associated with their overly optimistic assumptions – is an essential opportunity for Affinity to set out fairly and squarely these risks and bring them to the due attention of the Local Planning Authorities and the Inspectors.</p>
	<p>Our Response</p>	<p>We disagree, and do not recognise the 'serious failures' presented in the representation. We address the principle of cross-subsidy in our response to 1.6. above. The quarry issue is entirely separate as that represented a direct risk to groundwater, and not increased demand, which we are statutorily obliged to accommodate.</p> <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>

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		<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.