Cambridge Water














Cambridge Water

Revised Draft Water Resources Management Plan 2024 – Statement of Response

February 2024 Revision

Securing your water future

Contents

1. Introduction to our statement of response

Summary

Every water company in England and Wales must produce a Water Resources Management Plan every 5 years. This plan looks at the predictions for water demand over the next 25 years, and what water supply is available to meet this demand. It then details how it will ensure it meets this demand through a range of potential demand management options and new supply options.

We produced our draft WRMP24 and submitted it to the Environment Agency in October 2022. Following a review, we were given permission by Defra to publish this plan and have sought public consultation on this over a period of 14 weeks.

The statement of response details the feedback received and our response to it. In some cases, this will have led to a change or update in our plan, or we will have provided more evidence or clarification in the detail of the plan.

We will submit a revised draft WRMP at the same time as this statement of response so that it is clear what impact any changes have had on the plan and will enable more detail to be shared.

Following a review of the statement of response by the Environment Agency and Defra, in December 2023 Defra requested further information and some additional responses to some of our statement of response activities. In conjunction with this, the Environment Agency have provided some recommendations to improve the quality of our revised draft WRMP, attached in section 4. The Defra information requests are outlined in section 3.22 with further comments from Natural England outlined in section 3.23. These are new additions to this statement response, made in February 2024.

Other than these additional sections, we have no updated any of our Statement of Response. This may mean that some comments, and section references, have been superseded by the February 2024 update.

1.1 Public consultation on our draft water resources management plan

On 3rd October we submitted our draft Water Resources Management Plan 2024 (WRMP) to the Environment Agency. The Water Act 2003 states that companies must publish their draft plan within 30 days of notification that Defra is not proposing to give any direction (under section 37B(10) of the Water

Act 2003) to amend the plan on the grounds of national security. We received this notification from Defra on 9th November 2022.

We published our plan on 24th February on our website and notified key stakeholders (as specified in the WRPG) of the consultation period, directing them to the website and advising that a paper copy of the plan is available if required. These stakeholders included:

- the SoS;
- the Environment Agency;
- Ofwat;
- Regional Development Agencies within our area of supply;
- Regional Assemblies within our area of supply;
- local authorities within our area of supply;
- Natural England;
- the Historic Buildings and Monuments Commission;
- Canal and River Trust;
- Severn Trent Water; and
- CCWater.

Our draft plan was out for consultation for 14 weeks, and consultation closed at midday on Friday 19th May 2023.

Throughout the consultation period we answered various queries from both the Environment Agency and Ofwat. In addition, we held two stakeholder engagement webinars designed to share the detail of our WRMP with stakeholders in our area. Attendees included representatives from the following organisations:

- Cam Valley Forum
- Cambridge City Council
- The Green Party
- Friends of the Cherry Hinton Brook
- Hobsons Conduit Trust
- Household customers

1.2 What is a statement of response?

This statement of response shows questions or clarifications that our stakeholders have asked us and our response to these. In many cases we have responded to the point entirely within this document but, in other cases, we have addressed the point or made the suggested change in our revised draft Water Resources Management Plan (rdWRMP) and highlighted the location of this updated in this statement of response document. In addition, we have:

- Updated our demand profiles to take into account the post Covid-19 impact and provide the most up to date view.
- Updated our headroom profiles accordingly.

- Made changes to our plan based on customer and stakeholder priorities identified as part of our PR24 programme. For example, we have reviewed our metering programme.

Where we have addressed a point or made a change in our rdWRMP we have referred to this in our statement of response and signposted where in the rdWRMP we have made the appropriate changes.

1.3 The process of developing our statement of response

The total time between publication of the draft WRMP for consultation and submission of the statement of response is 26 weeks. Our consultation period ran for 12 weeks and therefore our statement of response was due for submission 14 weeks later on 25th August 2023.

Although not mandatory, we will also be submitting a revised draft WRMP in conjunction with our statement of response. This is because we believe it is the clearest way to show the changes we have made to our plan as a result of the feedback we have received through consultation. This means that our statement of response, in some areas, provide a high level overview of the change and will direct readers to a certain section or chapter of the revised draft WRMP to see the detailed response. This document will be published on 29th September 2023.

We have held review sessions with the Environment Agency, Ofwat and Historic England during the development of the statement of response to ensure all feedback points are properly understood and to share our proposed approach to these points.

We have addressed each point individually in our statement of response. We have grouped the feedback by responding stakeholder organisation (alphabetically) below in order to make it easier for those who responded to identify the actions we have taken that directly relate to their feedback. We have also included, in chapter 2, an overview of the feedback under the key themes we identified to provide an overview of the resulting changes.

1.4 Consultation Responses

We received responses from the following organisations:

- Angling Trust Eastern Region
- Arquiva
- Cam Valley Forum
- Cambridge City Council and South Cambridgeshire District Council (joint response)
- Cambridgeshire County Council
- Consumer Council for Water
- Environment Agency
- Everflow
- Gamlingay Parish Council
- Green Party: Cambridge and South Cambridge

- Historic England
- Hobsons Conduit Trust
- Marshall Group Property
- MOSL
- National Farmers Union (NFU)
- Natural England
- Ofwat
- Strategic Panel & Committees
- Water Resources East
- Waterwise

We have also received a response from one of our household customers and we will also address these comments in our statement of response.

Outside of the consultation process a letter was received from Defra and Rebecca Pow MP to all water companies referencing smart metering, and we have included this in our statement of response too.

1.5 Timetable

We will submit our statement of response on 25th August 2023 and publish this on our website. We will submit and publish our revised draft WRMP on 29th September 2023.

We will publish our final WRMP on our website once the Secretary of State has authorised us to do so. Copies will also be made available at our head office.

2. Key Feedback themes

Summary

The consultation feedback can be grouped into key themes:

- Demand forecasting
- Environment
- Options
- Best value and alternative plans
- Demand management
- Application of drought measures
- General

In this chapter we share a high level overview of the feedback received within each of these key areas and the impact this has had on our plan.

2.1 Demand Forecasting

As part of our plan, we forecast the future demand for water from both households and non-households. As with supply forecasting, it is important that we forecast this as accurately as possible so that we do not under or over-estimate any investment that may be needed in order to meet future demands.

The Cambridge region is forecasting some of the highest levels of growth in the country over the lifetime of our WRMP. This relates to both household and non-household growth. Some of the feedback we received on our draft plan highlighted concerns with the growth forecast we were using and the need to ensure that it incorporates the known plans whilst balancing potential additional aspirations. It is important, as highlighted in the Water Resource Planning Guidelines, that the WRMP plans for the know, published local plan growth, particularly early in the planning process. It is our statutory duty to plan for this, but we must ensure that we do not propose additional spend to meet growth projections that are not yet confirmed or approved, as this is not the right approach for either our customers or our environment.

As a result, we have worked closely with Greater Cambridge Shared Planning over the summer of 2023 to ensure that our household and non-household forecasts directly reflect their published plans. We have correlated this to employment predictions and jointly agreed on the profiles that we have selected for our baseline planning. We do some scenario testing on this level of growth too by looking at lower forecasts, such as ONS, and higher forecasts. We cover these in sections 12.7 and 12.8 of the revised

draft plan where we highlight the impact this would have on our preferred plan and the alternative pathways we would take should these come to pass.

We have been working closely with Defra, the Department of Levelling Up, Housing and Communities (DHLUC) and the Environment Agency to ensure that the proposed growth in the Cambridge region can be delivered sustainably. Following the announcement by the Prime Minister and the Secretary of State for DLUHC, Michael Gove, on 23rd July[1], we are working collaboratively with all organisations involved in the new Water Scarcity group and welcome the joint approach to resolving the water scarcity challenges in Cambridge.

We also received a query regarding our baseline water efficiency work i.e., what work we currently do to reduce consumption for non-households and households. We have included detail on this in section 12.1.3 and 12.1.4 respectively in the main plan.

2.2 Environment

We have included sustainability reductions in our plan in AMP8 following our investigations relating to "no deterioration" in AMP7. These licence caps are designed to prevent any additional growth in the area being supplied through increased abstraction from our existing groundwater sources. Since submission of the draft WRMP, we have now agreed these licence changes with the local Environment Agency team, and we have included the details of these caps, the locations and the catchment impacted in section 6.9.3 of the plan.

We did received feedback on our draft plan raising concerns about the risk of deterioration of our environment due to our current level of abstraction in the short to medium term. Our plan relies on demand management to offset the forecasted increases to demand caused by the significant growth planned for our region, and we cover concerns around demand management, and how we've addressed these in the revised draft plan in section 2.5 below.

During AMP7 we have undertaken investigations to understand and agree the required licence reductions required across our sources to ensure no deterioration to the environment from the current position. These reductions are required by 2030. However we need supply side options in order to continue to meet the future demand needs of our customers whilst making the abstraction reductions we need to make from our existing sources to meet the needs of our environment both for no deterioration and in the future under the environmental destination proposals. These supply side options, such as Fens Reservoir, have significant lead in times although we are accelerating these as far as possible.

Following feedback from the Environment Agency on our draft plan, our 15 Ml/d Grafham Transfer detailed is now no longer a feasible option due to its reliance on an Anglian Water drought permit and the sustainability of this. We had also applied for this option to be accelerated through the Defra Accelerated Infrastructure programme, but for this reason it was rejected. As a result, we have identified a new option of a transfer of water from Grafham Water, which we detail in section 2.3 below

[1] Long-term plan for housing - GOV.UK (www.gov.uk)

which can now deliver more water to our area – an increase from 15 Ml/d to 26 Ml/d. However, where the original Grafham transfer would have been available in 2030, the new transfer will not be available until 2032. This means we have a short period of time between 2030 and 2032 where we will be applying for IROPI in order to delay a proportion of the licence caps (approximately one third) until this transfer is in place to ensure we can continue to meet customer supply.

In our draft WRMP, we planned to meet the BAU+ environmental destination scenario and some of the feedback we have received has challenged whether this scenario is the right one to deliver the necessary environmental improvements. At this stage, there is still a high level of uncertainty regarding the true scale of the abstraction reductions required and we have planned to undertake investigations during AMP8 to help clarify these and any other actions that will be required in order to support this delivery. As a result, we have continued with BAU+ as our environmental destination scenario in the revised draft WRMP, aligned with other companies within Water Resources East, but of course this will be reviewed in WRMP29 following the results of our AMP8 investigations. Currently we are planning to deliver the environmental destination abstraction reductions by 2040, ahead of the National Framework end date of 2050.

We have also included a scenario in section 12.7 of the plan that shows the enhanced scenario as an adaptive pathway in our plan, should our AMP8 investigations show this is the required level of reduction. This outlines the necessary actions we would need to take in order to meet this level, and when we would need to take these actions.

In our consultation feedback, we received various comments relating to our environmental assessments. For both the SEA and NCA, the scope was developed in 2021 and we undertook a consultation process on this at the time to ensure all key stakeholders had the opportunity to input to this. We have developed these assessments based on that scope, and so any points that relate to additional requirements outside this will not be undertaken or updated as part of this process.

We have made some changes to our SEA and NCA based on comments received to ensure methodology descriptions are sufficient detailed, that the links between the plan objectives and these key documents are aligned, and to signpost information more clearly.

Climate change is a clear focus for the plan, and we have assessed the impacts of this on a number of areas:

- Raw water availability
- Raw water quality
- Water demand
- Environmental needs

We have included more information on these elements throughout the plan, and particularly in section 6.6 of our plan following feedback stating it wasn't clear how we had assessed some of these areas.

In our original submission, we had not adequately met direction 3(d) regarding to the inclusion of an assessment of the greenhouse gas emissions from both our current operations and total emission forecast for future operations across the plan period. We have now included this detail in section 12.11 of the plan. We have also included details of our journey to net zero in our plan in the same section.

2.3 Options

The feedback we received regarding our options mostly related to the quantity of supply and demand options we have as feasible options in our plan. Having too few options could mean that there is limited choice which means it is difficult to be confident that a proposed plan truly is the best value plan available.

At the pre-consultation stage of our draft WRMP development, feedback from the Environment Agency and other stakeholders meant that most of groundwater options and licence trades could no longer be classed as feasible due to groundwater availability in our catchments and those of our neighbouring companies Anglian Water and Affinity Water. Our initial list of unconstrained options totalled over 130 – through the robust screening process this has been reduced to 18 which highlights the scale of the challenge within the Cambridge region which is nearly 100% chalk aquifers. However, through engagement with Water Resources East, Water Resources South East and Water Resources West, we believe we have a wide range of different supply option types available for selection in our plan. These include:

- New reservoir
- Water re-use schemes
- Water transfers from other water companies
- Enhanced groundwater options
- Greywater reuse systems
- Rainwater harvesting schemes
- Potable water transfers

As mentioned in section 2.2, there has been a change to our Grafham Transfer option following feedback from the Environment Agency on our draft WRMP. This original 15 Ml/d option had a reliance on an Anglian Water drought permit, and this was determined to be an unsustainable approach. As a result, we have worked with Water Resources East and Water Resources South East to identify an alternative option. In conjunction with Affinity Water and Anglian Water, we now have an option that would see Cambridge Water receive a transfer of 26 Ml/d from Grafham Water. This water becomes available through the selection of the 100 Ml/d Grand Union Canal strategic resource option in Affinity Water's WRMP which in turn enables them to reduce their current transfer from Grafham transfer, thus making water available for transfer to Cambridge Water. As this option relies on the building and commissioning of the GUC option, and the related Minworth strategic resource option, this transfer will now be available in 2032 as opposed to the original 2030 timeline.

This increase in water availability means that there are additional impacts on the options selection in our plan. Fens Reservoir continues to be selected as soon as it is available in 2036 due to the need to meet our environmental destination requirements and Anglian Water's licence caps. However, it does delay the timing of our groundwater option of the Fenstanton borehole. Natural England raised several concerns with this option, and the later selection in our programme now enables us to undertake additional investigations to resolve all of the assessments and queries.

In our original data tables in our draft plan submission, we only included the preferred demand side options. However, there were multiple other options identified and assessed as feasible options for leakage as well as PCC and non-household consumption reduction. These have now been included in the updated data tables submitted with this statement of response, and more detail describing these options has been included in the narrative in chapter 9.5.6.

2.4 Best Value and alternative plans

It is important that we are able to demonstrate that our plan represents best value. A best value plan is one that considers factors alongside economic cost and seeks to achieve an outcome that increases the overall benefit to customers, the wider environment and overall society.

Our draft WRMP represented our best value plan. This is also our least cost plan. Our preferred plan is delivered in part through demand management and the achievement of the national targets for household and non-household consumption, as well as leakage, and this offsets the forecasted growth in the region, particularly in the early years of the plan. The scale of the environmental needs and the licence reductions we must take to protect this means we also need supply options, and as detailed previously, our scope of feasible options has been significantly reduced following pre-consultation and consultation on the draft plan. We cover alternative plans in section 12.8 in the revised draft WRMP.

Some changes to the activities may well make a certain AMP period cheaper, particularly at the start of the planning horizon. This could be utilised if there are significant cost challenges elsewhere in the business e.g. large scale investment required for water quality that would lead to a significant and unacceptable bill increase for a period of time. Our customers have told us that, if bills must increase, they do so steadily in order to help them manage the increases.

Our best value plan for the draft WRMP represented a linear profile for achieving leakage, which aligned with our customer preferences for affordability. Since the submission of the draft WRMP, we have been undertaking more work on the development of our PR24 business plan. Here we also develop the rest of the business needs for 2025 to 2030. With a view of these investment needs, we can understand the overall impact to customers and identify whether we need to impose any additional constraints on our decision making around the demand management trajectory to align with this. We discuss any constraints to our decision making process in a new section of the revised draft WRMP, section 9.7.

Through our PR24 customer engagement work, our customers have repeatedly told us that leakage must be a key priority and we should go further faster. As a result, our revised draft WRMP now demonstrates that we will achieve the 50% leakage reduction target by 2040 as opposed to the Environment Act target of 2050. Our optimisation work has shown that this is feasible, deliverable and the additional cost of this programme is modest compared to the benefit delivered.

As we have updated our demand side activities for the revised draft WRMP, this has led to the cost for these activities being updated, particularly for the delivery of the water efficiency and metering elements. In order to put that into context, we have included a view of the bill impact in the revised draft WRMP in a new section 13.3.

We have also included more detail in section 12.7 of the revised draft WRMP to demonstrate why our preferred programme represents the most likely scenario, how this relates to our core pathway. We also cover why we believe this represents low regrets investment to meet future uncertainties and how it allows additional flexibility in the future.

In order to demonstrate that our plan is robust and resilient to uncertainty, we test it against a range of scenarios. We received feedback that more information on the outputs of this scenario testing would help clearly demonstrate the impact these scenarios would have on deliver, and particularly on cost. We have included additional information in section 12.7 of the revised draft WRMP that articulates these scenarios and the outputs of these. These scenarios correlate with Ofwat's common reference scenarios.

One element that is important in the scenario testing, due to the level of uncertainty associated with it and the scale of the potential impact on the available supply, is the environmental destination. The low environmental destination scenario would be BAU+ with those reductions that have a high level of uncertainty associated with them removed, as agreed locally with Environment Agency teams. Through our engagement and discussions with these teams, they have confirmed that our low scenario should be the same as BAU+. While the scenarios are designed to understand, in part, changes to the cost of programmes, this is not therefore application for Cambridge Water for environmental destination as a lower environmental destination does not lead to a lower cost plan.

These scenarios highlight where we may need to take an alternative pathway if we are to ensure we continue to maintain a positive supply demand balance. We have included a new chapter in the revised draft WRMP, section 11.8, that takes the outputs from the scenario testing and identifies any alternative pathways that are required alongside our preferred plan should we need to adapt in the future. We show the impact if our demand management activities only delivered 50% of the demand reduction we are forecasting, and also a pathway that would be taken should our AMP8 environmental destination WINEP investigations show that the Enhanced scenario level is reductions is in fact required. In this section, we also look at how we'll monitor against our plan and the trigger points for these adaptive pathways.

For our draft WRMP, we assumed that metering delivered no direct water saving benefits. Instead, we viewed it as an enabler, allowing other mechanisms to provide more efficient and cost effective leakage reduction and water efficiency activity e.g. innovative tariffs. Following feedback from Ofwat and the Environment Agency, we have updated this for the revised draft WRMP. We have engaged with other companies who have undertaken extensive smart metering campaigns in AMP7 and taken their detailed evidence of the savings identified. As such we have updated our planning assumptions so that a household meter delivers 13% benefit upon installation. This means our costs for delivering water efficiency activities have reduced as we are delivering some of these benefits through the metering campaign.

In addition, through extensive planning and engagement with our supply chain, we have updated our metering costs and reduced these in the revised draft WRMP. We have also reviewed our leakage programme, as mentioned previously, and have updated these costs also.

Some of our consultation feedback highlighted that there were gaps in some of the data in the planning tables that means it wasn't always possible to understand the costs and benefits of options and programmes. We have updated these and they will be submitted alongside this statement of response. We have also been able to fill in gaps that were left due to timing – some elements of the tables relate to the PR24 business plan, and at draft submission stage it was too early to have these plans fully formulated. These are now updated and we have also updated costs of options and programmes where we have reviewed.

We have demonstrated, in a new section 9.8, how we believe our plan aligns with Ofwat's public value principles and ensures we deliver better social and environmental outcomes as a result.

2.5 Demand Management

Our preferred plan relies on demand management in order to offset the increased demand resulting from the significant growth forecasted in our region, particularly in the early years of the plan. As a result, it is important to clearly articulate the detail behind these plans and we received feedback during consultation that we needed to provide more information in this area, including on how we will deliver these activities, how we will monitor our performance and what we will do if we are off-track. We have provided additional detail covering these areas in section 12.3 in the plan. This details:

- Our approach to monitoring performance – this includes reporting via our annual review of our WRMP and delivery of our performance commitments for certain elements that will be incentivise out performance and penalise for failed delivery.
- What we will do if we're off track – alternative activities and trigger points for initialising these.
- Other activities to support – our engagement and participation in the Water UK water efficiency roadmap and leakage roadmaps, innovative trials and third party engagement.

In our draft plan, we did not include for uncertainty in the delivery of demand side options in our target headroom calculation headroom. As our preferred plan depends wholly on demand side options, it is important that any uncertainty is included. Therefore, we have undertaken an assessment for headroom component D4 (uncertainty associated with demand side options) and included this in our target headroom calculation, which has also been updated in the tables.

We received many comments relating to smart metering. Many consultees are supportive of universal metering proposals, emphasising the need to ensure these are delivered as quickly as possible in order to recognise early benefits. We were asked to demonstrate the different profiles we had explored for metering, explain further why we have proposed the programme we have and how that represents best value. Recognising the ambitious rollout will have an impact on our customers, we were also asked to provide more information on how we propose to support our customers through this transition, particularly those who will see a cost increase to their bill as a result.

At the draft plan submission stage, we were still working through the details of the types of support packages we could offer to our customers as we rollout universal metering. Since then we have further developed these and we have now included section 12.1.2. in the revised draft plan which shares the

detail behind these proposals. We are still working on the detail behind some of these schemes, and the list is not exhaustive at this stage as we continue to develop our plans in this area prior to our business plan submission in autumn 2023. Elements we have included are:

- We aim to have a maximum of 3% of our customers in water poverty by 2035
- We will expand our existing Assure programme to support nearly twice as many customers in AMP8 as we are supporting in AMP7
- We will provide a 2 year grace period for meter rollout. Customers will have 2 years from the date of meter installation before we switch to metered billing so we can provide them with regular consumption and proposed bill data. This will enable them to understand the impacts and plan for the potential changes were required.

Following feedback from both the Environment Agency and Ofwat, we have reviewed our initial approach that installing a smart meter does not on its own deliver any direct water saving benefit. In our draft plan, we assumed it worked as an enabler to allow delivery of other water saving activities e.g. innovative tariffs. However, we have since reviewed the findings from others in the industry who have undertaken extensive smart metering campaigns in AMP7 to identify the typical savings they have observed from installation of smart meters. As a result, we are now including a benefit where we install a meter into a household that previously was unmetered which equates to a 13% reduction in consumption per person. This has also been updated in the data tables.

This change means that metering now delivers a proportion of our proposed PCC reduction programme. As a result, we have reviewed the water efficiency proposed options and the scale to which they will be needed in the early AMPs of the project which means the overall cost of the PCC reduction programme has reduced.

We have reviewed our metering programme since our draft plan submission as we have been developing our business plan submission for AMP8. We have reviewed different delivery profiles and timing, and have shown these scenarios, the costs and benefits of each in section 12.1.2. Here we provide the detail as to why we have chosen to progress with our particular metering strategy.

Our universal metering programme applies to both household and non-household customers. We intend to fit smart meters to our entire non-household population over the next ten years. We will undertake this as a joint programme of work with the household rollout as many of these businesses are small local businesses e.g. hairdressers, shops etc. It is more economical to combine the programmes so that we can target installation geographically. This also means our communication can be more streamlined and it is clearer for all customers where sit within our plans.

At draft plan stage, we (and our sister company South Staffs Water) were the only companies to include a reduction to non-household consumption in our plan, aligned to the Environment Act targets have were proposed at the time. With the release of the Environment Improvement Plan 2023 in January this year, the targets were confirmed of 9% reduction in non-household consumption by 2038 and 15% reduction by 2050. As a result, we have increased our non-household water efficiency activity in our revised plan in order to ensure we deliver the new 2050 target of 15% reduction in non-household consumption.

The Environment Act target looks to deliver a 9% and 15% reduction from the 2019/20 baseline demand position. In the Cambridge Water area, non-household growth is set to lead to an increase in demand of 54% by 2038 from this 2019/20 position. As such, it is not possible to reduce non-household consumption by 9% from this 2019/20 number – this would equate to all new non-household growth being water neutral as well as delivering reductions to existing business customers. Our 2019/20 non-household demand was 22.65 Ml/d – in order to achieve the 9% target, we would need to reduce non-household consumption by 14.54 Ml/d by 2038, when taking into account the proposed growth. As a result, we have instead planned to reduce non-household consumption by 9% of the forecasted 2038 demand position by 2038. Likewise, our plan sees us deliver a 15% reduction in consumption by 2050 compared to the 2050 forecasted consumption.

We are proposing to work with retailers to enable additional water efficiency services such as water efficiency audits, advice and incentives, as well as data reviews to enable targeted interventions to save water both through consumption and leakage. We are also working closely with Defra, DHLUC and the Environment Agency in conjunction with the Government's new Water Scarcity Group, to identify additional opportunities to reduce and offset the demand of the ambitious growth plans in the region.

Since the submission of the draft plan, we have seen the publication of the Environment Act targets, the Environmental Improvement Plan 2023 and the Government Plan for Water. Our draft plan already included most of these targets, but the Environmental Improvement Plan (further supported in the Plan for Water) included new interim demand management targets. We have updated our profiles for demand management to ensure that we meet these interim and final targets for leakage, household and non-household consumption and demand per capita. We believe our plan aligns with the objectives in these plans.

The Plan for Water highlights the £400m of infrastructure investment that has been accelerated by Defra since the submission of the draft WRMP. We submitted a bid to accelerate some of our proposed investment identified in our draft WRMP and were successful in being awarded funding to accelerate both our household and non-household metering programmes. This enables us to start these programmes earlier than 2025 and therefore deliver the associated benefits sooner. We have included more detail on this in section 12.1.2 of the plan.

2.6 Application of drought measures

We received several comments on our inclusion of drought measures in our planning, and whether our approach to these is suitable. We have included our drought measures as instructed by the Environment Agency and these directly correspond to the drought measures detailed in our latest drought plan which we published in April 2022. For Cambridge Water, we have no drought permits or orders that deliver supply side benefits. Our drought measures relate to demand management, i.e. temporary use bans (TUBs) and non-essential use bans (NEUBs). As the data tables represent a 1 in 500 year drought, this corresponds to level 4 in our drought plan. TUBs are a level 2 measure and NEUBs are a level 3 measure and so both of these could have been implemented. We have only included TUBs and not NEUBs benefits in the revised draft WRMP due to uncertainty and the unlikelihood they would be in for every year in a dry year 1:500 drought, particularly linking to the economic implications of doing so.

Continued use of a non-essential use ban would cause significant challenges for multiple businesses in our area and therefore this is not a sustainable option for selection. The benefits included are the same as those included in our drought plan.

Temporary Use Bans (TUBs) and None-essential use bans (NEUBS) application and triggers are developed and detailed within the drought management plan rather than the WRMP. However we have committed to a review of our drought triggers and this will look at the frequency at which these demand restrictions may be required as well as when these should be instigated. TUBs and NEUBs have a part to play in the reduction of demand. However, we know from 2022 from the companies that did use TUBs that reductions in demand are not sustained. We believe that we need to educate customers on the water resource situation and the critical link to the environment, and then support them to make sustained changes to their behaviours if we are truly to deliver the level of ongoing reduction we are targeting. This is the basis of our demand management plan, centred around universal metering, which will provide the data and information to support this activity.

As directed in the updated Water Resource Planning Guidelines issued in March 2023, we have included a new appendix with the revised draft WRMP which provides information on the drought in 2022, our response to this and key lessons learned.

2.7 General

One area of concern highlighted related to the quality of areas of our data table submission. We have worked closely with the Environment Agency since to submission to resolve any outstanding errors. In addition, the updated Water Resource Planning guidelines provided some additional clarity and detail regarding certain elements of the data tables in order to remove and reduce errors, and we have followed this updated guidance when updating the data tables for this revise draft plan submission. We have also added an additional data assurance step into our review, so there is now another internal review step prior to submission to identify any anomalies or errors.

As stated above, in mid-March we received the updated water resource planning guidelines (WRPG). We have followed these revised guidelines in developing our revised draft WRMP, and new areas include:

- Inclusion of any Defra accelerated spend approved and the impact on the plan.
- Development of an appendix detailing the 2022 drought and any implications on the plan.
- Detailing our contribution to the Environment Act 2021 water demand target.
- Providing clear and robust justification for any significant differences to the supply demand balance between the beginning of the WRMP24 planning period and the final plan 2024-25 figure.

3. Responses to Consultation Feedback

Summary

We have collated the feedback from each organisation set these out in individual sections below in alphabetical order of the organisation.

In some cases, we may provide a high level overview as a response and point the reader to a specific chapter or section within the revised draft WRMP to provide the detail. This will enable readers to understand the full impact and provide a clearer narrative in relation to the rest of the plan.

3.1 Angling Trust Eastern Region

Consultation Comment	Response
What I want to press on is the reference to section 2.1 and Water Stress and Environment Impact from this stress caused today and more importantly in the future. WRE changed their stance on deficits supporting environment destination last summer. It's clear within their regional plan that a destination of BAU+ is the current ambition, but with additional evidence available by 2030 the additional abstraction reforms to sustain an enhanced environment destination will become clearer. Your WMRP is stating some defined hard numbers of deficit by 2050, there is currently a significant gap in what the final environmental needs will require and this must be reflected in the ambition of your WRMP. The pressures on the environment will only grow more, until additional supplies are available (Fen Reservoir) by the mid 2030's. So this venerability must be stated within the WRMP.	Our draft WRMP reflects the regional plan produced by WRE, of which we are a core member, by planning for the BAU+ environmental destination scenario. These abstraction reductions are included in our planning, and we are also planning to undertake investigations over the next three years to clarify the exact scale and location of the abstraction reductions required for this longer-term environmental protection. We have included more information in the revised draft WRMP, section 11.8, on a potential adaptive pathway that would be required if we determined through this work that the enhanced scenario is required. This outlines the additional actions we would need to take to enable this, and by when.

3.2 Arqiva

Consultation Comment	Response
We encourage Cambridge Water to pursue an ambitious rollout of AMI within the 2025-2030 period, to help ensure the delivery of its benefits to demand reduction are not delayed.	Through discussions with our supply chain, we have identified a programme of delivery that we believe is ambitious yet deliverable. Many water companies are proposing universal metering programmes throughout AMP and AMP9 as part of their WRMPs and we need to acknowledge the impact this will have on the existing market. Our plan has been developed with our delivery partners to ensure that we can meet our level of ambition as well as ensure the programme is deliverable. We propose to utilise both AMR and AMI technology. There are situations where AMI metering does not yet prove to be cost beneficial due to the additional infrastructure costs required e.g. in rural areas. Cambridge Water were successful in our bid for funding to accelerate our universal smart metering rollout programme, and we are starting this in AMP7 now which will accelerate the delivery of our plan.

3.3 Cam Valley Forum

Consultation Comment	Response
The Chalk aquifer is now the wrong source for the great bulk of public water supply. …We are taking far too much water for domestic supplies relative to that which the Chalk springs had a century ago. This results principally in us being in 'a water stressed region', not because of rainfall water shortage per se but mostly because we just desire too much of it and from the wrong places. The Chalk was and should be the reservoir that gives a Chalk streams its resilience. Over abstraction takes that away.	Our draft WRMP outlines our approach to reducing our abstraction from the chalk aquifers by more than 50% by 2040. In order to make the necessary reductions in chalk abstraction we need to build new supply options, and the development time for these are our current constraints to applying these restrictions. Our plan outlines that these new supply options will be in place as soon as is practically possible and the abstraction reductions will then be able to take place.

There is just not enough water. We need immensely more environmental ambition from you. Your job is not just water supply if the cost is harm to the environment. Environmental benefits need to be counted as credits for the health and well-being they bring.	Our plan looks to reduce our current abstraction by over 50% through the development of new sustainable water sources. One of these new sources, the Fens Reservoir, brings opportunity to provide additional health and well-being opportunities through the development of footpaths, cycleways, bridlepaths and other potential amenities such as fishing and sailing. We are committed to delivering at least 10% biodiversity improvement through all of our new schemes.
This region is experiencing a worsening of environmental condition, an erosion of Natural Capital - manifesting itself in failing ecosystem services (like ground water!) and in bio-diversity loss. The despair that we experience, at this state of affairs, is not helped by the huge pressure from local building development and human population growth. In short, we people are out of ecological balance with our environment, and time is not on our side to correct it. Your water supply is not used sparingly and it is certainly too cheap for its value; your superb treated drinking water is invariably 'wasted'. Restraint, in water use, is called for. But it is not yet in the public's perception to change our ways.	Our draft WRMP outlines our approach for improving water efficiency across our household and non-household customers. Through the installation of universal smart meters, we will be able to provide customers with information to help them understand their usage, as well as education, advice and support to help them make practical and sustainable changes to reduce this. Our proposal to undertake home visits to those properties with high consumption will allow us to review water use and wastage and the property and take steps to reduce this through provision of water efficiency devices, education and leakage identification and repair. We believe that a national approach is needed if we are to make significant changes to our relationship with water and we want to work with other companies and sectors to help deliver a step change campaign, such as that undertaken for recycling. In addition, we welcome the news of Ofwat's innovation fund for water efficiency to help support drive innovation and progress in this area.
We are however very disappointed that there is absolutely no mention of the National Chalk Restoration Strategy (CaBA-CSRG-Strategy-MAIN-REPORT-FINAL-12.10.21-Low-Res(1).pdf)	Our chalk stream restoration work forms part of our Water Industry National Environment Programme (WINEP). This is our programme of environmental improvement, where the WRMP focuses on water resource supply and demand. However, for the revised draft plan we

	have added section 11.10 which shares the detail of our WINEP programme, and more specifically, our chalk stream river restoration programme and how it links into the National Chalk Stream Restoration Strategy.
What is disappointing to us now is the recognition that the pace of change in improving environmental management shown by the water companies needs to outstrip the harm done by the pace of the development that we also are being required to seek.	We are working closely with Greater Cambridge Planning, the Environment Agency and Defra to ensure that the growth in the Cambridge region is sustainable. We are working with the new Water Scarcity Working Group that has been convened by the Department for Levelling Up, Housing and Communities, the Environment Agency, Ofwat, central and local government and innovators across industries to accelerate plans to address water scarcity in the area. This proposal it outlined here Long-term plan for housing - GOV.UK (www.gov.uk).
Do you evaluate past plans? What have you learned that can be built on now?	We review our position each year against our forecasted position in the most recent WRMP. We also undertake a review and lessons learned exercise upon submission of a WRMP. There are various learnings from previous plans: • ONS data has been lower than actual growth, and so we utilise local plan data to ensure we're forecasting the most appropriate demand. • Regional planning ensures that baseline assumptions are the same across companies and unlocks additional water supply options such as trades and transfers that previously were less easy to identify. • Early engagement with customers is key to understand the priorities for plans, and we have expanded on our customer engagement for WRMP24 to ensure we capture a wider representation of customer views.

	For each WRMP, the Environment Agency issues the planning guidelines to which we must adhere, and the changes to our plans we must incorporate compared to previous rounds. The Environment Agency are already reviewing the guidelines for WRMP29 and we have met with them to provide input to this process.
In evaluating the tone and the attitude of these successive plans there is a noted improvement in your interest in environment but it is still hard to feel that you have not been forced into it when you have only recently been finally forced to cutting abstractions. Your Head Room Licence cannot be utilised without considerable harm being done. The fact that you are overlicenced is not a defence for your actions. Nor is it your fault that demand has become so great, but we do welcome the reductions that are now being asked for.	Our licences have two conditions – an annual average which outlines the amount of water we're allowed to take in a year, and a peak capacity which shows the maximum we can take in a day. We fully support the need for reductions in these licences and our plan outlines how we can achieve this as soon as is practicable.
It is difficult to get through all of it [(the WRMP24)] when the Appendices are often pretty important as well. In expecting your readers to get to grips with the many hundreds of presented pages the WRMP should aim for greater accessibility. Repeatedly the water industry acronyms will not be understood sufficiently without greater explanation. We noted more than 50 little known water industry acronyms. In addition to these, in the main daft plan there are 20 or 30 more source names for deployable outputs in abbreviation form e.g. in Table 9, these are all referred to without any explanation as to exactly what thy refer to at all. If these are Environmental Agency 1. Base Year Licences (as is intimated) it is unclear as to how to even find out what they are! All this drives bewilderment for the reader.	Thank you for your feedback – for the revised draft plan we have ensured all acronyms are removed or fully explained. We have also updated table 9 to show full source names.
For the Ricardo report on Water Framework Directive, your consultant was presumably required to assess the possible non-compliance of new proposals. We would, however, question the competence of this particular report or reporter. We suggest this as there is allusion to options for harvesting grey water at Northstowe (in the Old West River catchment not the Cam catchment); CW2438A & CW2438B do not seem to appear in the main drafts. The consultant's allude to them as large scale (A) and small scale (B) water storage at Northstowe but this cannot possibly impact either Cherry Hinton Brook or Bottisham Lode (which they caution), as they are in an altogether unrelated catchment Area. We suggest that the consultant has not	These options have been assessed based on a typical site that may be suitable for such a scheme, applying some local knowledge on where larger developments are currently proposed. In the end the Northstowe site was not used so this naming should be disregarded, and reference made to the option pro forma. specific consultation regarding this option would require developer input. which we are unable to make comment on at this stage.

done their searches carefully at all. One is tempted to ask whether they have even visited the County! If OfWAT make such reports conditional for submitting a WRMP someone (you or OfWAT) ought to be critical of what they are feeding to you. In the Ricardo report on Biological Net Gain, there is no indication whatsoever of them having consulted with Natural England, the Environment Agency or the Local Wildlife Trust. Cambridge is full of experts on the ground but you are not getting very good advice here.	No change needed - WFD assessment has assessed the correct water bodies based on the location of the option. The option name may have driven this comment as the actual rainwater harvesting area is not very close to Northstowe. Engagement has been via the initial methodology for the draft WRMP. Key consultation points for regulators and stakeholders are via the statutory SEA scoping stage and this draft WRMP.
Chalk Streams: Channel Modification has gone on for centuries, with dams, weirs and mills being the start, but in the past century machine dredging for drainage has been thoughtlessly applied. Too few now have meandering beds over bright gravel. They are often deep cut, shaded, silted and embanked to their detriment. This is the first vital step to remedy. As you know Cambridgeshire is investing in this work with help from you. This we welcome.	We are also proposing more of this activity in our Chalk Stream River Restoration work as part of our Water Industry National Environment Programme between 2025 and 2035. More details are included in section 11.10 of the revised draft WRMP.
Chalk Streams: Pollution Although pollution is not part of the WRMP itself, it is a huge part of good management in what you supply. We welcome the fact that you do mention this as a supply-side concern. We would not want any let up on nitrate pollution monitoring. We do note however, that you are adding phosphate, to the drinking water as a de-plumbisation measure (stopping old lead piping from releasing lead). Could this practice be reviewed as lead piping becomes an older aspect of the mains water supply piping network? Is the level of your phosphate additions really needed? The shameful state of this Cam pollution is in large part attributable to our own very low summer Chalk Stream base flows which would enormously dilute this pollution were it not for over abstraction. This pollution spin-off from over abstraction is certainly your concern and responsibility to address.	The Drinking Water Inspectorate regulates our drink water quality standards. Over time, the standard for lead in water has reduced, and in order to meet these standards we need to dose with phosphate. Whilst we do look to replace lead pipes, this process will take many years. In addition, this does not take into account customer owned supply pipes. As such, we need to ensure we are also taking this into account with our dosing levels. We undertake an annual risk assessment and this determines our dosing rates. As pipes are replaced over time, then dosing would reduce accordingly. As detailed above, we plan to reduce our abstraction from chalk aquifers by over 50% by 2040 and this will help restore base flows. However, pollution also must remain a focus, and we have been expanding our work with farmers and landowners in our catchment to help reduce fertiliser and pesticide use and run-off, as well as improve drainage and

	chemical storage, all to assist with quarter quality. We will continue to expand this over the coming years to deliver further benefits.
Chalk Streams: Over Abstraction Cambridge Water and the EA have commissioned much research on the Granta Catchment over decades. (see Streetly, Bishop, Bradley and Dunscombe Managing public water supply abstraction from a Chalk aquifer to minimize risk of deterioration of ecological status). One might ask why you did not focus more on this as the basis for the cuts in abstraction the EA has required of you?	The reductions we must apply to our licences are prescribed to by the Environment Agency. Our longer-term abstraction reductions are proposed in the Environment Agency's National Framework for Water Resources, published in 2021. As we describe in section 6.10.1 we will undertake a series of investigations between 2025 and 2030 to determine exactly what reductions are required and at which sources. These investigations will take into account information such as this as well as building on our no-deterioration assessments undertaken between 2020 and 20205.
Chalk Streams: Over Abstraction Page 5, Paragraphs 2&3 and Table 1. Nowhere in your plan do you explain that the degree of flow of a Chalk stream relates directly to the intensity of abstraction from its aquifer. This needs saying forcibly to customers as it is why alternative sources of supply are so essential for the future.	We have added a new 4th paragraph into our summary under section 1 to emphasise this link.
Chalk Streams: Over Abstraction Your Water Resources Management Plan does not begin to acknowledge the status quo as being one that is deeply unsatisfactory. For this reason we do find expressions like 'business as usual' or 'no deterioration' as being totally unacceptable. Improvement on the status quo is the only respectable ambition. Abstraction should be capped at current usage levels and actual abstraction reduced as fast any alternative sourcing can be found.	The descriptions "business as usual" and "no deterioration" are those used by the Environment Agency as part of their review of sustainable abstraction. No deterioration means we have assessed our proposed future demand to understand whether it would cause any deterioration from the current environmental status. This does not mean that deterioration hasn't already happened – it refers to the future risk of further deterioration. In reality, some of the licence caps being applied through this mechanism will cap abstraction at levels lower than current usage levels. Business as usual, or BAU, is a scenario outlined in the Environment Agency's National Framework for Water Resources 2021. This title is indeed misleading, as this scenario does not imply that nothing needs to done – instead it aims Support

	the recovery of degraded rivers and water-dependent environments to meet existing targets and prevent further deterioration ('BAU') Achieve sufficient flows in waterbodies to support 'Good' ecological status under the Water Framework Directive (WFD), apart from waterbodies considered uneconomic to improve within River Basin Management Plans (RBMPs). Both of these elements are driving a reduction of over 50% of our abstraction.
We are wary of an over-reliance on modelling and would encourage the gathering of more local data. There is plenty of evidence of rising summer temperatures, earlier springs and longer summers. This all means greater evapotranspiration and less guarantee of available groundwater.	We have undertaken investigations between 2020 and 2025 to help inform our plans, and will undertake further investigations between 2025 and 2050 in order to determine the required abstraction reductions required and at which sources.
In thinking about water shortage we would urge that much greater attention be given to the soil moisture deficits. If soil moisture deficit (SMD) is raised more from the higher summer temperatures and longer summer seasons, then the ground-water sourcing of Chalk streams is greatly affected, as eventually also will be the sourcing of our public water supply. In this the Chalk streams are the canary in the coal mine. Summer evapotranspiration presently exceeds rainfall in an increasing period of summer months.	Soil moisture deficit forms a key part of our drought monitoring and our drought plan. As you are aware, we are currently reviewing our drought triggers and will ensure that environmental factors are fully considered.
You claim "we have undertaken studies to identify the actions required to make our system resilient to a 1 in 500 year drought, where the previous requirement was a 1 in 200 year drought". This must be a rather hollow statement when there are so many unknowns. Customers should be very happy to just receive what you provide so cheaply!	The Water Resource Planning Guidelines, issued by the Environment Agency, detail the requirements we much follow when developing our WRMP. One of the requirements for this WRMP was to increase our system resilience to a 1 in 500 drought. This means that in any year there is a 0.2% chance of us needing to deploy extreme drought measures e.g. standpipes in the street. Through modelling historic drought conditions we are able to determine the requirements we would need to ensure we are resilient to this level of drought. Upon commissioning of the Fens Reservoir we will achieve this level of resilience.
We note that 'In April 2021 the Panel agreed with the Company (South Staffordshire and Cambridge Water) a plan for an independent challenge by the Panel of the	Thank you for your feedback and your continued engagement on our customer challenge panel. Whilst we produce a

customer engagement to be undertaken by the Company in its water resources planning cycle WRMP24.' We do feel that this is in one respect the right approach. Since then two of our committee members (at your invitation) have attended meetings of the Challenge Panel but they have not found it easy to question key fundamentals as we see them, but they have pushed for universal metering, which Cam Valley Forum does support fully. The idiosyncrasy of South Staffs having one Challenge Panel when there are two utterly different water resource regions involved (WRE and WRW) in environmentally different parts of England is frankly ridiculous given that Cambridge's concerns centre principally on your supply-side sustainability. To represent these two different areas of England together when they have such different needs is a not sensible. In Cambridge, we'd like to see a totally local company with wide representation and get back to where once were.	separate WRMP for Cambridge Water and South Staffs Water, we operate under a single licence and therefore operate as a single company with distinct supply areas. We therefore have a single customer challenge panel which also supports our business plan development and submission. Our business plan covers both regions as detailed above.
We feel that Cambridge customers will become much more welcoming of the environmental improvements that are needed - like higher rates of fixing leakages, more advice on water saving, greater insistence on water saving technologies in new buildings, increased pace of metering, etc. When our local authority is onside, as it is now, in pressing the reality of a "water crisis" there is no point in the Company pussy-footing the message and trying to please everyone.	As part of the development of the draft WRMP we have engaged with a wide variety of customers, from different backgrounds and of different ages, in order to understand their priorities and then to test our plan with regards to acceptability and affordability. Whilst we have seen an increased environmental requirement from customers compared to WRMP19, there are understandably concerns around affordability and customer impact, particularly due to the current economic situation in the UK. We have to ensure that we factor this, as well as our commercial customer feedback, into our plans and also ensure that all investment is low or no regrets. We believe our plan balances these elements, and we continue to work with Water Resources East as well as Defra and the Environment Agency to ensure that all sectors are involved and committed to the actions that are required to meet the needs of our region.
In Cambridgeshire a major change now to a water saving culture will be essential if our Water Company is to fully achieve its WRMP. To achieve that cultural change requires forces to impinge on you from the media and Local Authorities as well as from customers. OfWAT	As part of our business plan for 2025 to 2030, which will be submitted in October 2023, we will be set Performance Commitments by Ofwat. This will ensure that we deliver on key areas of our plan

(who with the EA and WRE) now have an environmental duty to ensure sustainability will not be slow to ask for General Performance Commitments that may well entail higher pricing for water. We do recognise that water is presently "too cheap", in terms of the environmental cost to deliver it, and it has not been valued enough or priced well in recognition of its true worth. There are hard times ahead for water users here - not least because we have simply not been managing a model of true sustainability to date. Your performance commitment will need to be judged by achieving environmental benefits. Customers will be right to demand visible improvements to the presently over exploited Chalk aquifer environment.	and apply penalties where we do not. Key performance commitments relate to biodiversity, leakage, household consumption and non-household consumption. This covers our commitments in the WRMP and some elements from the Water Industry National Environment Programme (WINEP). Other elements in the WINEP and also our universal metering programme will be covered by a Price Control Deliverable (PCD) – this will also ensure we are monitored to deliver what we have outlined, and where we under deliver, money must be returned to customers.
We have no reason to question any of your and Artesia's research into Demand, but it would be good to know the populations sampled and the sample sizes, and when and under what conditions it was done. There is a lot of difference, in measuring attitudinal things, between objective sociometric methods and some sorts of marketing research. It is obviously difficult for you to assess. We are of the firm opinion that growing towards a local water saving culture and having it in place with customers is a very important component in getting this right. Cam Valley Forum itself has a small 'Water Conservation Group'. As you know they are willing and able to work with you in this respect.	There is a full detailed insight to the methods employed by Artesia when developing demand forecast in the Demand appendix in the 'micro-component section'. Artesia are industry experts in the field of water demand and as such have been commissioned extensively across the water industry to carryout insights into several water companies demand analysis. Artesia use this experience and data capture to inform our demand forecasts in conjunction with our own customer data sets. The forecasts will have been developed using data from thousands of properties and samples over many years. Much of Artesia's research is gathered from Household consumption monitors and surveys. We would welcome forging a close working relationship with the Cam Valley Forum's 'Water Conservation Group'.
As you know, Cam Valley Forum is strongly in favour of using TUBS as a tool where there is severe shortage. This needs to bite at a much lower water shortage threshold than your current TUBS trigger levels require. As we see this it is simply a question of Cambridge Water wanting more disciplined water use from its customers in recognition of the fact that we have an unsustainable and fragile source. If you just maintain that your operation is completely sustainable we just want to	We have stated in our plan that current abstraction levels are unsustainable, and that is why our draft WRMP looks to reduce them by over 50%. Temporary Use Bans (TUBs) application and triggers are developed and detailed within the drought management plan rather than the WRMP. However, as you are aware, we have committed to a review

know why do the rivers dry up? That question was asked in 2019 and in 2022 when other water companies went into Temporary Use Bans and you resolutely did not. It is a nonsense and we did not give the right message here. If you acknowledge the fragility of the ecosystem we are using many more people will cooperate and save water.(see metering below). The same is true of the need for better education of all children and adults about water. We understand that the TUBS regulations are in terms only of available supply. That availability needs to have much better environmental triggers to arbitrate on usage.	of our drought triggers and have committed to sharing this process with you. TUBs have a part to play in the reduction of demand. However, we know from 2022 from the companies that did use TUBs that reductions in demand are not sustained. We believe that we need to educate customers on the water resource situation and the critical link to the environment, and then support them to make sustained changes to their behaviours if we are truly to deliver the level of ongoing reduction we are targeting.
Many people in Cam Valley Forum question the wisdom of such massive projected developments as that occurring around Cambridge. We do recognise that Cambridge Water Company are not easily able to refuse to supply such developments because of their position as the only supplier, albeit with a monopoly. At the same time, we do not see it at all as the role of our own organisation to oppose all development on principle. We are of the strong opinion, though, that development must be in balance with the environment in terms of honoring Natural Capital and ecological sustainability. Both of these have not been followed in the past to our national detriment. With respect to Ecosystem Services water has a special position in needing to be fully available for the natural environment and farming and food production, etc.. Our society is rather mindlessly driven by a physical growth agenda which too easily will drive down the honoring of a Common Resource like Water. This is the reason why we have pushed bodies like Water Resources East to see that Common Resource management is not subject to market forces alone. We need regulators and regulation to rule over what will otherwise be our undoing. We know nothing of Artesia as your consultants. In 5.10.1 the conclusion 'Artesia work found that temperature, sunshine and rainfall remain the key explanatory variables for peak week household demand.' is fairly obvious. Demand cannot just be an entitlement to possession. We did not follow the sense in 5.11 para 1.(it has an incomplete sentence)	Water companies are not statutory consultees for development, however it is our statutory duty to plan for the forecasted level of growth in our region. We are working closely with Greater Cambridge Planning, the Environment Agency and Defra to ensure that the growth in the Cambridge region is sustainable. We are working with the new Water Scarcity Working Group that has been convened by the Department for Levelling Up, Housing and Communities, the Environment Agency, Ofwat, central and local government and innovators across industries to accelerate plans to address water scarcity in the area. This proposal it outlined here Long-term plan for housing - GOV.UK (www.gov.uk).
Reducing Leakage. Firstly, this is the subject which raises almost the greatest hostility amongst critics of water companies! It is therefore disappointing to be	For the revised draft WRMP we have taken on board your comments and ensured that we have outlined the

unable to tie down the problem of actual volumes of water leaked per unit time. We could find no record of what attainment in saving will be achieved by the close of AMP7 in 2025. We did see, however, that in AMP8 2025 - 2030 the rate of saving leakage will triple. This can only be good. In the Appendix P, issue 4, the saving of 50% leakage is tabulated on Table NTST 4 as 6.25 Ml per day. Does this mean that leakage is currently twice that at 12.5 Ml per day? This is an obvious place to secure greater savings but we do fully realise that this is pretty difficult for the Water Company to do quickly. Saving water would also save energy. It must be wasteful now. We did note that in the deep drought (with clay shrinkage) that there was an increase in your Company leakage rates in the drier weather. All this strongly indicates to us that it does represent decades of underinvestment in infrastructure. We would like to know who should be held to account for this? Can we not urge someone to accelerate the work? We note that the volume seemingly lost to leakage is only a little short of the gain in volume from the 2027 transfer from Grafham!	numbers clearly in section 11.1.1. Our projected leakage level by March 2025 is 13.2 Ml/d. The 50% reduction target is based on our 17/18 level of leakage which was 14.6 Ml/d. Therefore our plan will ensure our end leakage point is 7.3 Ml/d. The Environment Act targets state the 50% reduction should be achieved by 2050. However, we have listened to our customer views on leakage and are keen to accelerate this as much as possible to help with the short and mid term water resources challenges in the area, and therefore our revise draft plan looks to achieve this target by 2040. Our leakage levels are already lower than average across the industry but we absolutely recognise the need to do more, and our commitment to achieve the 50% reduction by 2040 is sector leading.
Increasing Household Water Saving This is an area that has been well researched locally and nationally. Evidence from Waterwise UK (https://www.waterwise.org.uk/save-water/) suggests that quite substantial savings can be made. 140 litres per head per day was not unusual in the past. Any household saving water can quickly reduce it to < 120 litres, with more effort < 80 litres per head per day is obtainable easily with some grey water use. Could not the per capita consumption (PCC) ambition of 110 litres per person per day by 2050 not be brought forward to an earlier date? May we emphasise that this is a social ambition for a society more than a company responsibility. Local Authorities are already frustrated by not being able to require higher standards of water saving in the built environment. Are you helping them in that will to change the status quo? May we support you in that ambition? This is a classic example of how the Company needs popular public support. Can you encourage the Government to bring forward their water (efficiency saving) labelling of white goods and other appliances?	As part of our optimisation work for our demand management options, we did assess the option to deliver 90 l/p/d by 2050. We found there was no route to achieving this unless the government introduce water labelling with minimum standards. However, at this stage they have said they are looking to progress without the minimum standards at this stage – in that circumstance we cannot achieve 90 l/p/d by 2050. Even with the minimum standards, the cost for this work was estimated to be over £100m – this works out to be over £11m per Ml saved which is significantly higher than the average unit rate and therefore cannot be deemed to be a best value approach. We have been working with local planning authorities regarding the building standards and fully support the lower levels, and have raised this in discussions with Defra. We also responded to the Government consultation on water labelling urging them to accelerate the scheme and to include minimum

	standards in order to maximise the potential benefits of the initiative.
Incentivising Water Recycling Cam Valley forum fully supports all your water recycling/reuse options. The water industry should put its energy behind all such modifications to our local building regulations. Local Authorities need to demand the facility to better influence local planning laws. Retrospective fitting of total household systems systems is expensive, but it is obvious for example that water butts are an immediate saving. Their underuse is a product of water being so much cheaper than the investment cost of rain water storage. In your WRMP we did note your positive engagement with grey water recycling on new buildings. Cambridge has the Eddington Estate which was designed with such good design inherent to the whole. One of the worries about large scale development of industry in the Cam Valley is the demand for water for industry. We see your ambition to reduce such non-household water use by only 9% between 2024 and 2037 is highly unambitious. Present Chalk aquifer usage by industry is in much demand. For the majority of businesses more in-house re-use and recycling would make good sense.	In 2017 the market for non-householders opened up and as such we no longer own the relationship with commercial properties, instead this is managed through retailers. As such, we currently need to ensure that we do not spend money gained from household bills on non-household activities, as we are not funded separately for this work. However, we feel that by working with retailers, we can deliver some significant savings in non-household consumption. However, there is significant non-household growth planned in the Cambridge region and we have updated our forecasts for the revised draft WRMP based on the latest employment figures as well as planning information. Demand in 2038 is 55% higher than in 2020, which is the baseline year for the reduction targets. In order to deliver a 9% reduction, all of this new NHH growth would have to be water neutral as well as reducing consumption across existing properties. Our work has shown this is not possible. As such, we are proposing to deliver a 9% reduction from the 2038 forecasted position and a 15% reduction from the 2050 forecasted position. We are working closely with Defra and the new Water Scarcity Working Group that has been convened by the Department for Levelling Up, Housing and Communities. Through this we are all working collaboratively to understand the opportunities to ensure non-household growth is sustainable.
Metering Metering is an obvious gain as metered properties use less per capita than unmetered properties. This has been well researched for your draft WRMP. In an inequitable society (and Cambridge City is a national exemplar of one such!) one would not want excessive water prices to fall on heads of the less well off. However, at present OfWAT pricing is so low that it does not encourage water saving and has the side-effect	As part of our optimisation, we have assessed delivering the universal metering programme by 2030. However, there are several reasons that we do not believe this is a viable options: • We have developed our plan with our supply chain to ensure that it is deliverable – accelerating the

here of wasting water and harming the environment. We need a water company and citizenry to demand equity in pricing and the best steps in that direction would be smart metering for all. Again, it is a case of upping the ambition. If you feel it can be done by 2035 why not sooner - by 2030. Cam Valley Forum is certainly calling for universal metering and the faster the better. Can you as a company be driven to do the right thing?	proposed programme would create supply chain issues with resources to deliver and meter availability. • All companies have ambitious metering programmes. This is putting a strain on meter stock, which is exacerbated by current world affairs. • Several companies have undertaken large scale metering programmes between 2020 and 2025 and found delivery challenging – we have liaised with these companies to understand the lessons learned and ensure we build a plan that reflects these. In Cambridge we already have a higher level of metering penetration than the industry average at 74%, and we acknowledge that 100% will not be fully achievable due to share supplies and other complexities, but believe our plan is ambitious and deliverable.
That Cambridge Water is realising that a total dependency on Chalk sourcing is no longer tenable is a big step forward. We commend Anglian Water in their support of you. We gather that the present incipient licence caps will reduce your current abstraction by around 26 Ml/d. We heartily welcome this change. We are pleased to see the now displayed (non-Chalk) supply options. We are therefore of course very supportive of the Grafham Transfer and in the longer term of the Fen Reservoir. Any climb down from the present 97% Chalk stream aquifer sourcing is a gain.	Thank you for your comments.
We recognise fully that these saving are all non-Chalk sources. This we commend. (The actual numbers here in our table [Page 10 Table 1]) may be overstated. However, we note that the timescale for achieving this change is still totally unambitious and actually barely in the time frame of the plan. How can we harness more support for saving streams and rivers much more quickly? The volumes envisaged here will not be quickly met and if the capacity it releases goes in to unconstrained development it will not bring any tangible benefit at all.	In order to make the abstractions reductions required, we are dependent on the development of new supply sources. The Grafham Transfer will only be available to us when the Grand Union Canal resource option is in place which allows Affinity Water to reduce its water transfer from Grafham Water. The Grand Union canal option is also progressing through RAPID to ensure delivery is accelerated.

	Fens Reservoir is also progressing through the RAPID process and 2036 is currently the earliest date we believe the scheme can be delivered. However in the announcement from Department for Levelling Up, Housing and Communities, a view to identify how the Fens Reservoir could be accelerated is part of the remit of the new Water Scarcity group. This proposal it outlined here Long-term plan for housing - GOV.UK (www.gov.uk). We support this and will be working closely with the team.
Your list of waterbodies:- Cherry Hinton Brook, Hoffers Brook, Mill River, River Granta, Mel, Shep and Vicar's Brook could all do with help. Augmentation has done much for some but whole rivers have effectively died, without help. One of those you have omitted, the Great Wilbraham River is pathetic today. Richard Townley, of the Wilbraham River Protection Society, has consulted with the EA they attest that the water table has gone down by three metres at the Temple Springs at Great Wilbraham and at Shardelowes Well, also, in Fulbourn. To overcome this deficit the Society were told that it would require a reduction of almost 70% in the current rate of abstraction to flow normally again. In the Cam Valley Forum we have heard similar talk from the EA of 60% minimal reduction on current abstraction rates to achieve near normal flows. The National Chalk Streams Restoration Strategy sees a similar picture (see graph for the Ver [Page 5 Figure 1]). There is now a national alliance to improve things and it is going to happen.	We have extensive plans for chalk stream restoration between 2025 and 2035 through our Water Industry National Environment Programme (WINEP) and we include the details of this in section 11.10 of our revised draft WRMP. Reductions to abstraction can only be implemented if replacement resources can be found and brought into supply – our WRMP24 proposes 2 significant schemes which are being developed to introduce replacement water as soon as they are able to. In the meantime, our demand management will ensure no significant increase in demand over the plan period.
We note that for WINEP the Granta Catchment has been selected for special investigation and targeted improvement . So far some useful study has been made in increasing the percolation of catchment flow into the aquifer. Cam Valley Forum has assisted with River monitoring which shows Phosphate pollution. One great need that the Cambridge area has is for a demonstration of an exemplar thriving Chalk Stream. Something to show our children and to be proud of. Cam Valley Forum would strongly argue that without such a demonstration the environmental gains from saving them Chalk Streams will very soon be lost to us all. May we here propose, here, that for every abstraction licence capping reduction you are required to make it should be	Our licence caps are prescribed by the Environment Agency based on each individual source. We already have hands off flows on the abstraction that impact flows in the Granta to protect the minimum flows required by the ecology. These are activated every year. We have selected the Granta as our flagship Chalks Streams Restoration Project (CSRG) promoted by the CaBa chalk streams strategy and are already actively working to introduce restoration measures including those identified in the

allocated to that one Granta catchment until you have greatly increased that Chalk stream's base flow. Such an action would be a welcome experiment and would validate your investment in this changed water resource attitude.	study alluded to. We have applied for innovation funding and fast tracked spend but these have to date been rejected, so the majority of restoration work will be part of our AMP8-9 WINEP implementation.

3.4 Cambridge City Council and South Cambridgeshire District Council

Consultation Comment	**Response**
It is essential for the Cambridge Water WRMP to provide certainty that enough water will be supplied for existing homes and workplaces (and those approved under the current Local Plans) in this nationally important economic and water-stressed area, whilst ensuring that this water comes from sources that do not have a detrimental environmental impact. The challenge lies in planning for water supplies for the future developments to be set out in the Greater Cambridge Local Plan covering the period up to 2041, given that any proposals within the WRMP should also provide for real improvements to the water environment as soon as possible.	For the revised draft WRMP we have updated our household and non-household demand forecasts and have worked closely with Greater Cambridge Shared Planning in order to do this. The revised draft WRMP shows that demand management activities offset the increases in demand associated with the ambitious growth planned for our region. In order to meet the environmental needs of the region through the abstraction reductions we need to deliver new supply side schemes such as the Grafham Transfer and Fens Reservoir as soon as they are available.
The Councils are not the responsible authorities for water resources planning and would look to the expertise of the Environment Agency to assess whether the measures proposed in the Cambridge Water draft WRMP will be effective in providing a sustainable water supply. We nevertheless ask that Cambridge Water continues to work cooperatively with the Councils as the WRMP is finalised. The Councils, as local planning authorities, are already required to have regard in their decision making on planning applications to river basin management plan objectives, including the impact of abstraction to meet water supply needs, and therefore it is essential that we can have confidence in the approach set out by Cambridge Water in the WRMP.	Throughout the production of the revised draft WRMP we have worked closely with Greater Cambridge Shared Planning to ensure that our forecasts are accurate and to share progress against our developed of the revised draft. In addition, we have help additional session joint with Defra and the Environment Agency which have led to Cambridge Water producing a separate piece of work showing the impact of various scenarios on our proposed plan which is being used to feed into some of the current planning challenges being observed in the region. We will continue to work with all stakeholders to ensure clarity around the plan and the necessary actions required in order to deliver a

	sustainable water supply for our customers and the environment.
The Councils urge Cambridge Water along with the Environment Agency, DEFRA, DLUHC and OFWAT to work effectively together and in a timely manner to resolve the final WRMP and to bring forward the necessary supply and demand measures as rapidly as possible in such a way that there is no environmental deterioration, and that past ecological damage has an opportunity for repair. We are particularly concerned as, although the wet spring this year will potentially take the region out of "Drought status", the extreme weather fluctuations that we have seen recently are well in-line with predictions for climate change scenarios (https://www.nature.com/articles/s41467-023-36499-9). We would like to see the WRMP take a more pro-active approach to the extreme variability in rainfall and weather that is likely to become increasingly normal, and will require a commitment to the precautionary approach.	We are working closely with Greater Cambridge Planning, the Environment Agency and Defra to ensure that the growth in the Cambridge region is sustainable. We are working with the new Water Scarcity Working Group that has been convened by the Department for Levelling Up, Housing and Communities, the Environment Agency, Ofwat, central and local government and innovators across industries to accelerate plans to address water scarcity in the area. As part of this work we are exploring the role all sectors must play in ensuring the development is sustainable and the options and opportunities we can explore to achieve this. This proposal it outlined here Long-term plan for housing - GOV.UK (www.gov.uk) As part of the Water Resource Planning Guidelines issued by the Environment Agency, the WRMP24 must improve the level of drought resilience from a 1 in 200 drought to a 1 in 500 drought. This means that there would be 0.2% change of extreme drought measure (e.g. standpipes in the street) being required in any year. Our plan delivers this standard upon commissioning of the Fens Reservoir and this will make our system and supplies more resilient to climate change as you reference.
It is also important to understand the cost of all the proposed measures and the impact this will have on customer bills. Further education initiatives in water usage are encouraged to inform people about the serious water stress in the region. Many people are very unaware, and don't understand the importance of conserving water.	We have included a new section in our revised draft WRMP which outlines the impact on customer bills. This is section 12.3. We have shared the bill impact with customers as part of our customer engagement work.
Cambridge Water stated that, between the closure of the consultation (19th May) and the planned date for submission of the revised plan to Defra (25th Aug), they will:	We have worked closely with Greater Cambridge Shared Planning to update our household and non-household forecasts, and they have had full sight of these prior to submission of the draft WRMP.

• Update the baseline demand forecast based on the latest property and population forecasts. • Review [their] demand management profiles to ensure alignment with the Environment Act interim targets. • Provide more carbon data in the plan e.g. the carbon impact of [their] preferred plan and [their] journey to net zero by 2030. • Undertake a review of [their] drought triggers. • Include details and learnings from the 2022 drought. We have some concerns that the results of these activities will not apparently be made available before the revised WRMP is submitted to Defra, given that many of our concerns itemised below are related.	The other elements will be provided in the revised draft WRMP, apart from the review of our drought triggers which relates predominantly to our drought plan and is ongoing.
Ahead of the publication of the Draft WRMP, the Environment Agency has raised concerns as a consultee on planning applications (such as Darwin Green, an allocated site on the edge of Cambridge) requiring further information on the basis that the proposed development may, through additional demand for potable water use, increase abstraction and risk further deterioration to water bodies in the Greater Cambridge area. Their comments highlight that the EA will be reviewing the Draft WRMP24, to assess if the required changes to licences have been included and sufficient water supplies are available for growth and the environment. In their 2022 pre-consultation response (in Appendix A accompanying the dWRMP), the EA stated "*the reductions [to abstraction] required are expected to be significant and may cause large discrepancies between the forecast and actual baseline SDB* (supply demand balance)*. We expect the company to demonstrate in its plan that its abstraction is sustainable now and long term. As part of the Chalk Stream Restoration Strategy, we are calling an end to unsustainable abstraction and expect your plan to protect and improve the environment, considering both current and future challenges*." The Councils therefore consider it an urgent priority that Cambridge Water and the Environment Agency work together (with other agencies where necessary) in order that there is confidence in the WRMP and to avoid delays to decisions on planning applications on sites allocated in current adopted Local Plans. During the EA	Throughout consultation and the development of the revised draft WRMP, we have worked closely with Greater Cambridge Shared Planning, developers in the region, the Environment Agency and Defra regarding these matters. We have worked together to ensure our property, population and employment forecasts are accurate. We have also produced a separate piece of work for the Environment Agency to support the current development challenges. This work assesses our plan against a wider range of scenarios which in turn will provide the Environment Agency with more clarity on the water resource security and resilience. The scale of proposed growth in Cambridge is significant and we need to also make significant reductions from our current abstraction in order to retore and protect the chalk streams in the area. Our revised draft WRMP shows that our demand management programme will offset that increase in demand as a result of the growth, and that new supply side options are required to enable the abstraction reductions required in both the short and the long term. We are working closely with Greater Cambridge Planning, the Environment

Drought Update public webinar of 20th April, the Environment Agency verbally expressed some concern about the abstraction levels in the proposed plan and we would like reassurance that any concerns are being addressed.	Agency and Defra to ensure that the growth in the Cambridge region is sustainable. We are working with the new Water Scarcity Working Group that has been convened by the Department for Levelling Up, Housing and Communities, the Environment Agency, Ofwat, central and local government and innovators across industries to accelerate plans to address water scarcity in the area. As part of this work we are exploring the role all sectors must play in ensuring the development is sustainable and the options and opportunities we can explore to achieve this. This proposal it outlined here Long-term plan for housing - GOV.UK (www.gov.uk)
Page 4 Para 1. If the plan-making process is not to be significantly delayed, it is critical that Cambridge Water, working with bodies such as Water Resources East, the Environment Agency, DEFRA and the Councils identify and agree solutions to deliver a sustainable water supply that also protects and enhances the environment.	As stated above, we are working closely with Greater Cambridge Planning, the Environment Agency and Defra to ensure that the growth in the Cambridge region is sustainable. We are working with the new Water Scarcity Working Group that has been convened by the Department for Levelling Up, Housing and Communities, the Environment Agency, Ofwat, central and local government and innovators across industries, including Water Resources East, to accelerate plans to address water scarcity in the area. As part of this work we are exploring the role all sectors must play in ensuring the development is sustainable and the options and opportunities we can explore to achieve this. This proposal it outlined here Long-term plan for housing - GOV.UK (www.gov.uk)
Based upon the technical appendices to the draft WRMP, officers believe that the dwellings trajectory that has informed the draft WRMP is broadly in line with the housing development trajectory within the existing adopted Local Plans and the development set out in the Greater Cambridge Local Plan First Proposals (2021), along with growth identified in the published Huntingdonshire housing trajectory for the area within the Cambridge Water Catchment. Following our publication of updated higher needs figures, the revised	During the development of the revised draft WRMP we have worked closely with Greater Cambridge Shared Planning to ensure that our household and non-household demand forecasts are updated and accurate reflect the current plan position.

needs, and their impact upon water demand must be understood urgently.	
The information relating to non-household growth accounted for in the draft WRMP is provided in the technical report found at Appendix C2 accompanying the draft WRMP. This indicates that it has taken account of economic trends in different sectors. The Councils however require further information to confirm that the levels of employment growth being used in forecasts are consistent with the evidence being used for the Local Plan, including for the updated needs, in order to give confidence around future decision making. It is important to understand the needs of different sectors such as laboratories, which can be water intensive users, and which are particular to Greater Cambridge.	During the development of the revised draft WRMP we have worked closely with Greater Cambridge Shared Planning on the non-household growth forecast and have agreed a scenario that relates to employment forecasts that aligns most closely with the non-household forecasts in the plan. We have provided updated information on this scenario in Appendix C2 accompanying the revised draft WRMP.
The Councils understand that the underlying forecasts for household and non-household growth are already being revisited by Cambridge Water as part of the development of the final WRMP. Therefore, it is crucial that Cambridge Water collaborate with the Councils so that the relevant data and evidence base that underpins the development of the new Local Plan can be used to inform this process.	During the development of the revised draft WRMP we have worked closely with Greater Cambridge Shared Planning to ensure that our household and non-household demand forecasts are updated and accurate reflect the current plan position.
Page 4 Para 5. The effectiveness of these measures will need to be continually monitored in order to ensure that they are providing the predicted savings. The Councils question the timetable for universal smart metering by 2035, as the neighbouring water company Anglian Water aim to achieve this by 2030. The Councils firmly believe that this target should be brought forward to at least 2030. There are several ways in which the installation of smart meters can be accelerated, and other water companies (e.g. Severn Trent) have been tackling this far more effectively. The Councils are aware that there have been occasions where single meters have been installed for groups of properties such as flats. The Councils have also taken steps, through conditions in planning consents sought, to ensure that individual dwellings are fitted with the means to monitor and measure their own water consumption. The water company itself should be taking a more active role to ensure that individual properties are metered to deliver the most effective water management.	We deliver an annual review of our progress against each WRMP to the Environment Agency. In this we outline our performance against key elements such as demand management and includes any improvements we are planning to make should we see any areas off track. Cambridge Water already has a high metering penetration of 74% which is significantly higher than that of Severn Trent Water. As part of our optimisation, we have assessed delivering the universal metering programme by 2030. However, there are several reasons that we do not believe this is a viable option: • We have developed our plan with our supply chain to ensure that it is deliverable – accelerating the proposed programme would create supply chain issues with resources to deliver and meter availability.

	• All companies have ambitious metering programmes. This is putting a strain on meter stock, which is exacerbated by current world affairs. • Several companies have undertaken large scale metering programmes between 2020 and 2025 and found delivery challenging – we have liaised with these companies to understand the lessons learned and ensure we build a plan that reflects these. Our customer engagement work for the WRMP has also shown that customers are concerned about the impact compulsory metering will have on their bills, particularly in the current economic climate or for customers who have high water usage for medical needs. As such, we have to make sure we are engaging with customers to ensure we identify any concerns and can support customers through the transition.
Page 5 Para 2. The Councils are also supportive of the use of site-scale rainwater harvesting and greywater reuse as set out in the draft WRMP in section 9.5.4, under other options. …The largest savings would be at a site-scale, although smaller schemes should also be encouraged as a way for all new developments to reduce water use.	Thank you for your comments.
Page 5 Para 3. Cambridge, as a centre of excellence for sustainability and the environment, could be a leader in demonstrating how a target of 80 l/p/d can be achieved and we would like the WRMP to reflect this larger ambition. We would therefore welcome assistance from Cambridge Water in lobbying Government to allow for the establishment of more stringent water efficiency policies and in providing evidence to support our aim and show that this is achievable. Southern Water, for example, is working with their customers to reduce personal average daily use to 120 litres by 2025 and 100 litres by 2040.	As part of our optimisation work for our demand management options, we did assess the option to deliver 90 l/p/d by 2050. We found there was no route to achieving this unless the government introduce water labelling with minimum standards. However, at this stage they have said they are looking to progress without the minimum standards at this stage – in that circumstance we cannot achieve 90 l/p/d by 2050. Even with the minimum standards, the cost for this work was estimated to be over £100m – this works out to be over £11m per Ml saved which is significantly higher than the

	average unit rate and therefore cannot be deemed to be a best value approach. However, we are keen to promote more ambitious building standards and have engaged with Developers in the region, as well as Defra, to promote this and encourage options such as greywater reuse and rainwater harvesting schemes, as delivered in our ground-breaking Eddington site. We have a developer incentive mechanism which waives connection charges if properties are built to water efficient standards, and we're looking to build on this scheme as part of our business plan submission in October 2023.
We are also proposing to include in our Greater Cambridge Local Plan a policy that would require non-household development to achieve full credits for category Wat 01 of BREEAM unless demonstrated impracticable. Again, measures such as rainwater harvesting and greywater recycling will be important to achieve these levels for non household uses, particularly where developments are water intensive uses, for example laboratory uses. Given the known challenges with water supply impacting our area, we would welcome any assistance Cambridge Water could offer to support this policy, which will also be of benefit to the demand management proposals in the WRMP.	We have a developer incentive mechanism which waives connection charges if properties are built to water efficient standards, and we're looking to build on this scheme as part of our business plan submission in October 2023. We would be very supportive of a policy that delivers greater water efficiency and are keen to work with you on this topic.
Even if new development is extremely water efficient, it will still lead to an increase in water required. In order to reduce overall demand retrofitting existing buildings to reduce water use will be essential and is urgently required. The Councils would welcome further exploration of how this could be achieved, either on a site/campus or an area wide basis reflecting on best practice elsewhere with officers from Cambridge Water and the Environment Agency. We are aware that there are many options available, from replacing inefficient fittings with new water-saving alternatives to installing water-butts and other water collection devices. The water company should also introduce far more pro-active measures to encourage the public to adopt water-saving behaviour; the efforts made during the 2022 drought were quite clearly inadequate and a critical	As stated above, we are working closely with Greater Cambridge Planning, the Environment Agency and Defra to ensure that the growth in the Cambridge region is sustainable. We are working with the new Water Scarcity Working Group that has been convened by the Department for Levelling Up, Housing and Communities, the Environment Agency, Ofwat, central and local government and innovators across industries, including Water Resources East, to accelerate plans to address water scarcity in the area. As part of this work we are exploring the role all sectors must play in ensuring the development is sustainable and the options and opportunities we can explore

review of this failure is needed to identify a better approach.	to achieve this. This proposal it outlined here Long-term plan for housing - GOV.UK (www.gov.uk)
The Councils are supportive of the proposed Government changes to the labelling of white goods and household appliances to show their water efficiency, which is referred to in the WRMP. This should also include the requirement of water usage controls on electric power and rain showers. Given that the national legislation planned will take time to have an effect (households will not automatically replace their existing appliances), the Councils would urge Cambridge Water to lobby the Government to introduce this as soon as possible.	In our revised draft WRMP we have taken a more cautious approach to the benefits we believe water labelling will bring. The Government have stated this will be introduced in 2025 but we believe it will take time before the benefits are recognised. We have taken the low scenario of proposed savings and we have delayed the start of the benefits to 2030. We also responded to the Government consultation on water labelling urging them to accelerate the scheme and to include minimum standards in order to maximise the potential benefits of the initiative.
Page 6 Para 3. The draft WRMP states that following discussion with Anglian Water, both companies have proposed the acceleration of the work, as part of the Defra Accelerated Scheme. If approved this would enable the water transfer to be available in about 2027, rather than 2031. The Councils firmly support the acceleration of this programme, due to its potential in the short term to enable the management of ground water abstraction required to prevent deterioration to the water environment. We urge the water companies, the Environment Agency and DEFRA to complete exploration of the technicalities of delivery of this scheme as soon as possible. The draft WRMP states that the transfer is time-limited, likely for a 6 year duration. However, once the transfer is operational it is essential that it continues to supply water in the period until the Fens Reservoir is operational (rather than limited to a specific number of years) to prevent environmental impact and the Councils would like this to be clear in the WRMP.	As part of the development of the revised draft WRMP, Anglian Water have updated their modelling and following some feedback from the Environment Agency they are no longer able to support this original transfer of water from Grafham. We have worked with Anglian Water and Affinity Water to identify an alternative option. As a result, Affinity Water are now proposing to build a larger version of their strategic resource option utilising the Grand Union Canal bringing water down from the Midlands. As a result they are able to reduce the quantity of water they current transfer from Grafham Water and therefore there will be water available for a transfer to Cambridge Water. In addition, this allows a larger transfer of 25 Ml/d which we now have included in our revised draft WRMP, as have Anglian Water and Affinity Water. We are therefore dependant upon the Grand Union Canal option being constructed, which is also going through the RAPID process. The current expectation is the water will be available for Cambridge Water in 2032 and we will undertake all of the work required to enable the transfer between 2025 and 2030 to ensure we are

	ready for this water as soon as it becomes available. This water will be available until 2040 and therefore will continue to provide a supply of water to Cambridge Water until Fens Reservoir is available.
Page 7 Para 1. Whilst noting the need for robust regulatory and consenting processes, the Councils therefore support the prioritisation of this essential new infrastructure [Fens Reservoir] so that the environmental benefits from reduced abstraction can be realised as soon as possible.	Thank you for your comments.
At section 11.3.4, Cambridge Water asks for views on the application of drought measures in the plan in lieu of Regulation 19 exemptions to defer the reductions in licence caps, where there would remain a risk to deterioration of waterbodies. It is unclear from the plan what this would mean in practice and how frequent the use of Temporary Use Bans (TUBs) for domestic properties and non-essential use bans (NEUBs) for commercial activities would be. There is also no detail on how long these restrictions would last, and whether they would no longer be needed once other sources of supply became operational and the plan should be clearer and more specific about this. The Councils strongly urge the introduction of drought measures, such as TUBs, to stop non-essential use and strongly object to deferring the reductions to abstraction licences and continuing to abstract at levels that would cause damage to the chalk streams and the wider environment. In this way everyone is playing their part in using water wisely. A step change in responsible water use through education and the appeal for restraint communications to the public must be delivered, and we believe that the majority of the public in Greater Cambridge will understand the need for this approach. The Councils would urge the water companies to use these powers when they are needed to protect the environment in a very timely manner, and introduce them before the negative impacts of a drought period take hold. We would like to understand why such powers were not used at the peak of the heat wave in 2022.	Our triggers for initiating TUBs are outlined in our drought plan which was published following review and permission from the Environment Agency in 2022. As all of our abstraction is groundwater, these triggers relate to the level of recharge we see over the winter period and therefore the water availability in the aquifer in the coming summer. In 2022 we had a wet winter that saw the aquifers recharged and therefore the TUBs trigger was not reached. However, through extensive discussions with stakeholders during and after the drought of 2022, we recognise that these drought triggers need reviewing. As such we have committed to a review of these triggers which is now underway and have committed to working with Natural England and the Environment Agency as we progress with this work. Through our discussions with the Cam Valley Forum we have also committed to sharing the outputs of this work.
The draft WRMP includes an environmental destination to improve waterbodies by 2040 based on the Business	The environment destination work looks at abstraction reductions required to

as Usual Scenario (BAU+). This is consistent with the draft WRE Regional Plan, but the Regional Plan makes it clear that WRE's preferred option is the 'Enhance' level even though it proposes using this only from the mid-2030s and subject to further investigations being completed. In line with comments we made to WRE on the Regional Plan, the Councils believe strongly that given the urgency of the situation and the environmental damage that has already occurred, the WRMP plan must seek to **restore** the status of our watercourse and we are therefore supportive of the 'enhance' environmental destination as a key priority. Given that Cambridge is celebrated as a world centre for environmental research and studies, with extensive expertise among its residents, we urge Cambridge Water to reflect this in its plan and provide a model for other regions in the country. Table 16 of the draft WRMP shows that only the 'enhance' destination includes enhanced protection for our precious chalk streams, sensitive headwaters and SSSIs. We note the challenges associated with the investment required, but we would nevertheless strongly urge Cambridge Water to commit to the 'enhance' environmental destination in the WRMP as BAU+ does not provide adequate protection. In section 6.10.1 of the draft WRMP it is recognised that further work will be carried out in the next Asset Management Period (AMP) 8 (2025-2030) and that flagship chalk stream river restoration projects will commence during this period. These enhancements are to deliver hydromorphological benefits to the chalk streams to improve and enhance them in the short term, before flows are returned to them in the future. The measures proposed would need to be subject to the appropriate approvals and as a form of mitigation, they are welcomed, but the return of flow to the chalk streams will only be made once the new major sources of supply take effect. Therefore the Councils would again stress the importance of the water transfer and Fens Reservoir in bringing about these improvements and that they are implemented as soon as possible.	provide protection to the watercourses and environment with regards to climate change. As all of Cambridge Water's abstraction is currently from chalk aquifers, all abstraction reductions we will undertake under any of the scenarios, including BAU+, will directly benefit chalk streams. In our revised draft plan we look at the enhanced scenario as a an adaptive pathway and show the impact this would have on our plan and alternative options we might need to use in order to enable this. This is shown in chapter 11.5. Our chalk stream restoration work forms part of our Water Industry National Environment Programme (WINEP). This is our programme of environmental improvement, where the WRMP focuses on water resource supply and demand. For the revised draft plan we have added more detail of our WINEP programme, and more specifically, our chalk stream river restoration programme and how it links into the National Chalk Stream Restoration Strategy.
The Councils support schemes to improve the chalk streams and water courses across the area, subject to the appropriate approvals. The Councils have already secured funding from the Cambridgeshire and Peterborough Combined Authority and are starting to	We would welcome the opportunity to work with you to explore these opportunities.

carry out partnership projects which make local chalk streams and the species they support more resilient to current low flow scenarios. Both Councils are committed to doubling nature in Greater Cambridge, and we would urge a coordinated approach to actions including with other environmental groups to secure resources and realise the greatest benefits. The Councils would also like to work with Cambridge Water to explore opportunities for water source enhancement through water storage / infiltration to the aquifer, including what could be achieved through the planning process.	

3.5 Cambridgeshire County Council

Consultation Comment	Response
The target meets the National Infrastructure Commission proposals in their 2018 'Preparing for a Drier Future- England's Water Infrastructure Needs' report. Water companies committed to this reduction in a letter from Water UK to the Secretary of State in October 2018. The 50% was based on calculations and analysis using input from Infrastructure Transitions Research Consortium and Regulatory Economics Ltd. Whilst we recognise that this is a national target, we do not feel it is ambitious enough, and the 50% reduction in leakage should have a much more urgent delivery date than 2050.	As part of the development of our revised draft WRMP we have taken into account your view and similar views from customers and other stakeholders. As such, we are proposing to accelerate our leakage reductions in the revised draft WRMP and will achieve the 50% leakage reduction target by 2040.
Q – Do you support our target to reduce household consumption to 110 litres per person per day by 2050? Yes, however we believe this cannot necessarily be achieved through smart metering and educational work alone. Investment will be needed to create more water efficient homes and businesses, with the option of retrofitting to be explored where appropriate	We are working closely with Greater Cambridge Planning, the Environment Agency and Defra to ensure that the growth in the Cambridge region is sustainable. We are working with the new Water Scarcity Working Group that has been convened by the Department for Levelling Up, Housing and Communities, the Environment Agency, Ofwat, central and local government and innovators across industries to accelerate plans to address water scarcity in the area. As part of this work we are exploring the role all sectors must play in ensuring the development is sustainable and the options and opportunities we can explore

	to achieve this. This proposal it outlined here Long-term plan for housing - GOV.UK (www.gov.uk).
Whilst we recognise that the Cambridge Region is water stressed, we would wish to see full evidence of the need for compulsory metering and a full Equality Impact Assessment to demonstrate that any adverse impacts on any groups can be managed appropriately. In addition to compulsory metering, we wish to see further commitment of measures Cambridge Water will undertake around leakage reduction and any compulsory metering should be preceded by the education of customers if it is expected they will reduce their consumption by 30 litres per person per day.	Following the classification as serious water stressed, companies are able to explore compulsory metering provided they have customer support. Through our extensive customer engagement work that we have undertaken when developing the plan, we have shown that the majority of customer do support this approach, as outlined in section 4 of our draft plan. They, as you have, rightly raised concerns around affordability and how we must ensure families are not adversely penalised. As such, we have included further detail in our revised draft plan outlining how we will ensure any adverse impacts can be managed with our customers – this can be found in section 11.1.2.2 and are outlined below: • We aim to have a maximum of 3% of our customers in water poverty by 2035. • We will expand our existing Assure programme to support nearly twice as many customers in AMP8 as we are supporting in AMP7. • We will provide a 2 year grace period for meter rollout. Customers will have 2 years from the date of meter installation before we switch to metered billing so we can provide them with regular consumption and proposed bill data. This will enable them to understand the impacts and plan for the potential changes were required.
Q - Do you support our environmental ambition to reduce abstraction from existing sources to a lower level (known as 'Business as Usual Plus') by 2050? Yes. We would welcome the opportunity to see how multiple benefit solutions may be incorporated to	Thank you for your comments. We are happy to work together to achieve our mutual goals.

balance water abstraction, flood risk, irrigation and biodiversity enhancement. A strategic priority for Cambridgeshire County Council to be net zero by 2045 which includes working with partners to deliver water conservation approaches and manage water scarcity.	
We note the golden thread to take action on the environment sooner rather than later and believe there may be 'no/low regrets' work that can be undertaken before 2029 to help improve the resilience of the environment or support local farmers through catchment advisors. As already outlined above, a strategic priority for Cambridgeshire County Council to be net zero by 2045 which includes working with partners to deliver water conservation approaches and manage water scarcity. We are keen to work with Cambridge Water on schemes such as Natural Flood Management and Catchment Based Approaches which we believe can be delivered relatively quickly.	We do have a team of catchment advisors in the region who work with farmers. We have been expanding our work with farmers and landowners in our catchment to help reduce fertiliser and pesticide use and run-off, as well as improve drainage and chemical storage, all to assist with water quality. We will continue to expand this over the coming years to deliver further benefits. We are happy to discuss opportunities to work together with Cambridgeshire County Council to help achieve these aims.

3.6 Consumer Council for Water

Consultation Comment	**Response**
It is good to see the Non-household challenge addressed and ambition outlined for greater focus on communication with NHH customers following a dip in 'education' since the market opened. We wish to see all wholesalers make demand management an integral part of any strategy to address risks to future water supplies and meet Defra's target to reduce water demand. We would like to see greater ambition on how the wholesale company should work with business customers and retailers in the short and long term to reduce demand and increase water efficiency. The non-household retail market has so far failed to deliver a market for water efficiency assistance for business customers in England to the extent that was envisioned when the non-household retail market opened for all businesses in 2017.	Our draft WRMP planned to achieve the 9% non-household consumption reduction as outlined in the Environment Act targets – at the time, these targets were only proposed and not confirmed. We planned to achieve this through fitting enhanced meter technology to all our non-household customers between 2025 and 2035. Following the confirmation of this target in the Environment Act in December 2022, we have further enhanced our proposal in this area to ensure we are working closely with retailers to drive behavioural changes and efficiencies in the non-household population, as well as identify and target customer supply side leakage within this population. As a result, our plan will now meet the 15% reduction target by 2050.

While the introduction of a new business demand Performance Commitment by Ofwat in the PR24 final methodology means there will be greater transparency and an opportunity to set challenging targets, this is not a regulatory measure that can deliver demand reduction by itself. Wholesale companies' plans need to be clearer on how they will manage business demand, especially in areas more at risk of water scarcity. We would like to see greater innovation and ambition in demand management, with the wholesale company showing how it will engage with customers and retailers on joined up strategies to help reduce demand.	These additional activities are described in section 11.1.4 and include: - Water efficiency audits and reviews - Data reviews of continuous use to identify possible wastage and leakage We have been part of a club engagement project with several other water companies where we have been engaging with retailers to identify how we can best work together to deliver these ambitions. This includes looking at communication and incentivisation, and we will continue to build on this throughout the rest of AMP7.
In discussing the roll out of universal metering (p10), the plan did not address the concerns clearly mentioned in customer research (section 4 of main plan) and in particular the need to provide the re-assurance that support will be provided to the vulnerable, those struggling with affordability and larger households during the transition to and after meter roll-out.	In our draft WRMP we acknowledge the concerns raised by our customers and highlight that we were working through our plan to support customers as part of our PR24 process. We have undertaken further customer research on the potential options and have agreed the following approach: - We aim to have a maximum of 3% of our customers in water poverty by 2035 - We will expand our existing Assure programme to support nearly twice as many customers in AMP8 as we are supporting in AMP7 - We will provide a 2 year grace period for meter rollout. Customers will have 2 years from the date of meter installation before we switch to metered billing so we can provide them with regular consumption and proposed bill data. This will enable them to understand the impacts and plan for the potential changes were required.
Given the challenges other water companies have faced in implementing universal metering it would have been useful to see more detail in the plan on how South Staffs will use a behavioural science approach (or other similar innovations) to persuade customers it is the right thing	As part of our PR24 customer engagement, we discussed with customers the potential options to support those who need it throughout the universal rollout programme. In addition, we

to do. It will also be important to learn from the experience of other companies and to offer both practical and financial support to customers where needed. CCW looks forward to discussing these plans with the company.	undertook multiple sessions with South East Water who have already rolled out universal metering. We have also taken on board the learnings of other companies who have undertaken ambitious metering programmes in AMP7, such as Anglian Water and Thames Water. Through this we learned what worked well, what improvements they would recommend, and customer feedback and preferences throughout the journey. We have included this in our plan for support as detailed in the revised draft WRMP and will build further on this in our PR24 submission. We will continue to share these plans with CCW as we develop our PR24 business plan.
It is notable that the plan outlines the company's long-term ambition to achieve: - 50% reduction in leakage (from 2017/18 levels) by 2050 - 110 l/h/d household consumption by 2050 - 9% reduction in non-household consumption by 2037 We would expect the final plan to make reference to the interim statutory demand targets outlined in DEFRA's Environmental Improvement Plan (EIP) to- -reduce household water use to 122 litres per person per day (l/p/d); -reduce leakage by 37% (20% by 31 March 2027 and 30% by March 2032); and, -reduce non-household (for example, business) water use by 9% all by 31 March 2038. We would wish to see a glide path showing what level and when reductions in demand are expected to be delivered.	At the time of submission of the draft WRMP in October 2022, the interim targets were not yet in place as they were published in December 2022. In our revised draft WRMP we have updated section 11.1 to show how our WRMP outcomes compare to the Environment Act targets, including the interim positions.
The plan identifies the main challenges the water company faces, but with regard to climate change the emphasis appears to be on its impact on the environment (and thus the need to reduce existing groundwater supplies) rather than considering its impacts 'in the round'.	Our plan has looked at the impacts of climate change on two key elements of the plan: - Raw water availability (see section 6.6) - Customer demand i.e. how it may impact customer behaviour and water needs (see section 7.1.2)

	We also include a level of uncertainty associated with climate change in our headroom calculation, acknowledging that climate projections get more uncertain the further into the future they go.
The non-technical summary would benefit from infographics.	We will be updating our non-technical summary for the final plan and will look at how to include more infographics as part of that revision. We also share our customer facing documents with our online forum of customers, H2Online, for feedback and builds to make sure our communications are as user friendly and engaging as possible, and we'll ensure we do this again for this final version.
There is no easily accessible information regarding the likely bill impact of the Plan. Any price increase will be in addition to the bills impacts from other regulatory requirements and investment needs, and should be made clear. A single water affordability scheme is needed to make sure those most in need are protected from higher bills due to increasing environmental investment pressures.	We have included a section in the revised draft WRMP in section 12.3 that details the bill impact of the proposed programme. Overall affordability testing has been undertaken as part of our PR24 customer engagement programme.

3.7 Defra

Consultation Comment	**Response**
Recognising the significant benefits of smart metering on usage of water including identification of leaks we expect water companies to consider how to rapidly increase installation of meters for household and non-household customers (even where they cannot charge by metered volume). We also expect companies to quickly move towards all new and replacement meters being 'smart', where this is the best value for customers and the environment. You will also be aware that smart meters can be installed without the need to change billing procedures.	Our plan shows we will deliver universal metering for all our household and non-household customers by 2035. All new installations will be smart. We are developing our support packages for customers to ensure that transitions to metered bills is affordable. As part of this, we will offer a two year transitioning period where we can share meter data to help customers identify potential savings or enable them to prepare for the changes to their bills. We will also enhance our support packages from 2025 to support vulnerable customers. We were also successful in our bid as part of the Defra accelerated infrastructure

	development and we will be accelerating some of our programme into AMP8.

3.8 Environment Agency

The below section provides the overview recommendations and improvements identified within the Environment Agency feedback. The Environment Agency also provided a detailed evidence report where each of these recommendations and improvements were broken down into sub-actions. This detail has been included at the end of this document in Annex 1.

Consultation Comment	Response
Page 5 Section 3. We do not consider that Cambridge Water has complied with the Water Resources Management Plan (England) Direction 2022. It has not met the following directions. In respect of greenhouse gas emissions – (i) the emissions of greenhouse gases which are likely to arise as a result of each measure which it has identified in accordance with section37A(3)(b), unless that information has been reported and published elsewhere and the water resources management plan states where that information is available; (ii) how those greenhouse gas emissions will contribute individually and collectively to its greenhouse gas emissions overall; (iii) any steps it intends to take to reduce those greenhouse gas emissions; (iv) how these steps will support the delivery of any net zero greenhouse gas emissions commitment made by it; and (v) how these steps will support delivery of the UK government's net zero greenhouse gas emissions targets and commitments.	Information on emissions arising from our proposed options was included in the data tables, and we have now included section 11.2 in the main document to describe the emissions of each option and how that contributes to our overall greenhouse gas emissions. Additional references are included to further sources of supporting information. This now meets the requirements of the Direction in respect of greenhouse gas emissions. We have also included details on our net zero plan and how our activities here play a part in that plan.
[Continued from above] Its estimate of the total number of meters installed to record water supplied to domestic premises at the commencement of the relevant planning period and including a breakdown of – (iii) the number of meters that are charged by reference to volume including – (aa) optant metering; (bb) change of occupancy metering; (cc) new build metering; (dd) compulsory metering; and	We have included a breakdown of this in the data tables that will be submitted alongside the revised draft WRMP. Our metering strategy will focus on achieving universal metering through the metering of the remaining c30,000 unmeasured Households with a view to reach as close as effective 100%-meter penetration by 2035. All new builds will continue to be metered in line with current policies.

(ee) selective metering	
[Continued from above] Its estimate of the total number of domestic premises which will become subject to domestic metering during the planning period and including a breakdown of – (iii) the number of domestic premises with meters that will be charged by reference to volume including – (aa) optant metering; (bb) change of occupancy metering; (cc) new build metering; (dd) compulsory metering; and (ee) selective metering	We have included a breakdown of this in the data tables that will be included in the revised draft WRMP.
Recommendation 1: Demonstrate the company can meet its responsibility to provide secure water supplies to customers, support growth and protect the environment by making significant improvement to its plan. The Environment Agency expects the company to make substantial improvements to the plan and provide confidence that it can meet demand and support growth without posing a threat to the environment. This includes developing alternative options to manage the risk to security of supply and the environment if its preferred plan cannot be delivered.	We have reviewed the options available to us both locally and from the regional plan(s). As a result we have revised one of the earliest options available, the temporary transfer from Anglian Water. This could now provide a larger volume of additional supply and has been modelled with our other feasible options to provide an updated plan. This will now however be delivered 2 years later in 2032 and so will require an interim dispensation to some licence caps in 2030 which will be managed to reduce the risk of and impact to the environment which would be fully mitigated. Our preferred plan has been stress tested against supply and demand uncertainties to provide a robust preferred plan. Our growth estimates have allowed for the emerging local plan growth aspirations, above the published local plan and therefore would allow this level of growth to be supported.
Recommendation 2: Demonstrate that the risk of deterioration in status of water bodies can be managed, including maintaining abstraction to historic limits at sensitive sites. Cambridge Water must demonstrate it has a credible plan to manage the risk of deterioration in each water body affected by its abstractions.	Our preferred plan demonstrates that demand management will offset the expected growth in demand by 2030, in a dry year, and from 2030 we will apply most licence caps to manage the risk of deterioration, with all caps applied by 2032 when our earliest available supply option can be implemented to replace the available abstraction lost from licence caps to supply. These caps are based on the recent actual period of abstraction provided by the EA. We have also undertaken additional groundwater modelling work to explore a number of

	abstraction scenarios at the individual source level and the flow changes that may occur for required abstractions and how these would impact on the risk of deterioration increasing or otherwise. We aim to ensure no decrease in WFD status for any waterbody identified at risk of deterioration in the Water Industry Environment Programme (WINEP).
Recommendation 3: Accelerate and develop preferred supply options to provide confidence they can be delivered and will be available to mitigate the risks to security of supply and the environment. This is particularly important for the proposed transfer from Anglian Water and the proposed Fens Reservoir strategic resource option (SRO).	All of our supply options have been reviewed and due to the nature of the sudden supply reductions due to licence caps to prevent deterioration, are being selected in the preferred plan as soon as they are available. The 2 key schemes – Grafham transfer and Fens Reservoir – have had the delivery programmes reviewed by the project teams and will be available as soon as available, in 2032 and 2036 respectively. Although both these options are in some part reliant on other companies and third party involvement, and/or include complex planning processes, we are confident that the project delivery teams have provided sufficient reassurance at this stage that these schemes are deliverable as presented in the WRMP, and this is demonstrated consistently in companies respective plans.
Recommendation 4: Develop a fully costed and deliverable alternative plan or pathway for if important supply and demand options are not delivered. The plan should include consideration of alternative supply options and strategic transfers from sources inside and outside of the region, so these are ready to be deployed as soon as they are required. This should include consideration of the size of the Lincolnshire reservoir option and if a larger reservoir can support increased transfers to Cambridge Water. Also, if desalination should be a preferred option. This is particularly important for alternatives to the Fens reservoir and transfer from Anglian Water should they not be deliverable.	We have revised our preferred plan which is outlined in our revised draft WRMP and this now outlines the impact if demand management activities are not as effective as our assumptions. This adaptive pathway is outlined in chapter 11.8. The Fens reservoir is our preferred mid-long term strategic option, and this can be delivered sooner that the Lincs reservoir, with the required volumes to meet both the licence caps for no deterioration and the expected reductions for environmental destination, the latter subject to investigations to finalise. The Fens reservoir could also provide additional yield, if deemed required through the planning process. Current technology results in de-salination being less sustainable than the selected preferred options at the regional scale, and are only selected through the regional simulator in extreme futures, for example where abstraction reductions are considerably greater than expected. This would only be realised over the

	longer term, beyond 2040, and if technology can make de-salination more sustainable in future WRMPs, and the need for additional supply or alternative options arises, it will be considered in future options. Presently, de-salination remains screened out from our unconstrained to feasible options list based on environmental impact, cost and feasibility.
Recommendation 5: Demonstrate that the proposed use of drought measures will be effective in helping to manage the risk of deterioration in status of water bodies and will help maintain security of supplies. Cambridge Water must demonstrate how it will apply drought measures to manage abstraction to help avoid the risk of deterioration in status of water bodies. It should set out any changes required to its drought triggers and if this affects the company's levels of service.	We have included the benefit of drought measures from TUBs in our dry year supply demand balance, these could be pertinent to ensuring a positive SDB from 2025-30. For 2030-32 a small SDB deficit remains to be offset by IROPI different of licence caps – the deficit is singularly driven by this requirement. This deficit would remain in a normal year as well as a dry year. Drought measures would normally be introduced in accordance with our drought plan triggers, which are predicated on 2 dry winters, although we maintain the ability to introduce these due to lack of supply availability due to other factors if required. We are currently reviewing and updating our drought triggers and levels or service for our next drought plan.
Recommendation 6: Accelerate universal smart metering, explain the assumption of zero benefit and clarify individual components of the metering strategy. The company should complete its universal smart metering programme by 2030 or provide strong evidence why this cannot be achieved. It should also re-consider the assumption that smart metering delivers zero benefit to water consumption.	To deliver universal metering, we will be looking to install circa 3,000 meters per year across the ten years from 2025 to 2035. New properties will be metered upon completion. As we believe metering is a key enabler for activities which drive leakage reduction as well as PCC reduction, we are keen to accelerate this work wherever possible. As such, as part of the Defra accelerate spend initiative, we have proposed to accelerate this work and therefore starting in 2024. This would enable us to complete the earlier than 2035. This will add more security in the delivery of both the leakage and PCC ambitions as we will have more data and information to enable these activities. We have explored delivery of our metering programme by 2030 with our supply chain and taken the learnings from other companies such as Anglian Water and Thames Water that have undertaken larger programmes in AMP7. These ambitious programmes have provided some difficulty in delivery, and our already high

	metering penetrations means there is a higher than average proportion of more difficult meters left to install which impacts on the overall delivery pace. We have updated our views on metering benefits following this feedback on our draft plan. We have utilised detailed data from Thames Water to demonstrate a 13% saving can be achieved per household upon installation of a meter, and this assumption is included in both our revised draft WRMP and the updated planning tables accompanying it.
Recommendation 7: Clarify the ambition to reduce non-household demand and justify the provision of new non-household supplies that are not sustainable. Cambridge Water should resolve differences in the data on non-household demand in the plan and work with non-household sectors to manage demand. It should include dry year forecasts where it believes its non-household consumption is weather related.	We have fully addressed this issue in section 11.1.4 'Non-Household consumption' in the revised draft WRMP and have updated the accompanying data tables to ensure the correct savings are demonstrated. The Environment Act targets look to deliver a 9% saving by 2038 and a 15% saving by 2050 from the 19/20 baseline position. Due to the extensive growth in the Cambridge region, we found that it is not possible to achieve this as all new NHH would have to be water neutral, as well as making reductions to existing non-household properties. For context, our NHH demand is forecast to increase by 55% by 2038 from the 19/20 baseline position, an increase of 12.5 Ml/d. There are areas of biomedical, science and technology growth in the NHH forecast for Cambridge which can be higher users of water, and therefore through our discussions with developers as part of producing this plan, achieving water neutrality is not possible at this stage. We have instead planned to deliver a 9% reduction from the forecasted 2038 position by that date, and 15% reduction from the 2050 forecasted position by that date. We have explored the option to temporarily restrict new NHH connections until we have some of our longer term new supply options in place. We discuss this in our alternative plan section 11.8 in the revised draft WRMP. However, we are also in regular discussions with Defra, DHLUC, Greater Cambridge Shared Planning and the Environment Agency about the ambitious economic development plans for the Cambridge area, referenced in the recent announcement by

	the Prime Minister and Michael Gove (Secretary of State for Levelling Up, Housing and Communities) (see link). Here the future ambitions are clear and we have therefore continued to plan for these as we work with these organisations and the new Water Scarcity Group, to identify additional opportunities to address the concerns in the region to enable the desired growth. We are keen to drive efficiencies and improvements across the non-household sector. This is more challenging as we must work with Retailers, who own the relationship with non-household customers, but we believe there are real benefits to be delivered in this area and our plan outlines our activities such as fitting enhanced metering to all NHH properties and undertaking water efficiency audits, continuous flow monitoring and leakage support.
Recommendation 8: Provide confidence the plan will achieve assumed proposed demand reductions and the actions needed to keep demand savings on track. Cambridge Water should provide detailed and substantial evidence about the delivery of its demand management and leakage actions, this should be specific to the company. It should include an assessment of uncertainty in its demand management options and allow for this in headroom.	We have detailed the approach to uncertainty in the 'Cambridge Water Resources Management Plan 2024' report, however, we have assessed the uncertainty in our supply and demand forecasts using the target headroom approach. For the revised draft WRMP, we have included component D4 in our headroom calculation which specifically relates to uncertainty in the demand management options. We have also included a new section in the plan, section 11.3, which discusses how we propose to deliver, monitor and report on our demand management activity.
Recommendation 9: Ensure there is clear monitoring of the demand management programme. The company should show how it will monitor its progress and act quickly if the demand management proposed is not achieved.	We have also included a new section in the plan, section 11.3, which discusses how we propose to deliver, monitor and report on our demand management activity.
Recommendation 10: Complete a full review of source vulnerability and reliability; include investment in making existing supplies more resilient. Cambridge Water's outage performance is poor. It should work proactively with the Environment Agency and other regulators to highlight supply risks early so everything possible can be done to avoid over-abstraction.	We review our source reliability and outputs annually and have an ongoing programme of maintenance and upgrades to ensure minimised any unplanned downtime. Maintenance does also require outages at sources, and the majority of unplanned outages reported have been as a result of water quality issues outside of our control, and we are committed to ensuring water quality remains compliant. We acknowledge that

	we have had some long term outage concerns during AMP7, again due to water quality constraints, and we have detailed our approach to reducing the impact of these in our WRMP19 annual review submission. Outturn outage will legitimately vary year from year, and from the outage allowance for WRMP and the unplanned outage performance commitment. Our annual unplanned outage performance is within the expected allowances in the WRMP, and unplanned outage is managed according to the supply needs for SDB and compliance to avoid over abstraction at individual locations.
Recommendation 11: Revise the strategic environmental assessment (SEA). The report should make it clear how the options compare to least cost, best value and best for society and the environment plans. The company should also address other shortcomings in its SEA, including identifying transboundary effects and showing how in-combination and cumulative effects have been considered within the SEA. Cambridge Water should provide certainty that all significant effects have been captured. It needs to ensure that monitoring and cross boundary effects are assessed once the plan is implemented.	The SEA has been updated for the revised draft. In the revised draft WRMP, sections 11.7 and 11.8 detail the work we have done to test our plan against various potential scenarios, aligned to Ofwat's common reference scenarios, the impacts these would have on the plan and the adaptive pathways we would need to take if these came to pass. In addition, section 11.8 addresses adaptive planning that looks at elements such as environmental destination. The SEA methodology was undertaken in accordance with the methodology developed at the Scoping Stage which included the statutory consultation process. In combination effects will be addressed as per the documentation. Where there is remaining uncertainty, around options we will identify a programme of works for the relevant options to address these data gaps.
Recommendation 12: Ensure the plan is legally compliant by adhering to the WRMP Directions. The plan fails Direction 3(d)(i), (ii), (iii), (iv), (v); Direction 3(g)(iii) and Direction 3(h)(iii).	We have updated section 11.2 to detail our existing greenhouse gas emissions and then the impact that our plan will have on these. We have also included our plan to achieve net zero operational carbon emissions by 2030 in this section.
Improvement 1: Explain how the company will reduce greenhouse gas emissions.	Section 11.2 in our revised draft WRMP now includes our plan to achieve net zero with respect to energy
Improvement 2: Clearly set out all existing bulk transfers.	Added a table to section 2.9 in the main plan with further information.

Improvement 3: Clearly present the proposed use of drought measures in the data tables.	We have included drought measures in the data tables for TUB but not for NEUB. We believe that TUBs could be implemented in any dry year if necessary, but that NEUB are not appropriate for every dry year, and would be used in more serious, extended droughts, Here also the benefits are less certain and not required to maintain the SDB in a dry year.
Improvement 4: Improve the approach used for accounting for climate change impacts to include further evidence and justification. Cambridge Water should clearly set out the vulnerability of its water resources zones to climate change using the required assessments. It should explain how the impacts have been modelled and accounted for in its plan.	The approach outlined in Appendices D and E demonstrates that we have applied the required level of assessment to understand the vulnerability of our WRZ to climate change. We have expanded on the summary in Section 6.6 of the revised draft plan to provide more information on this. We have also revised the approach to quantification of climate change impact to utilise more recent data sets, and applied the likely reduction in yield to each groundwater source, and included this in the WRMP tables. It should be noted that due to the reduction in licence availability following proposed licence caps in 2030, licence constraints override yield constraints and any climate impact on the yield of our sources, as replacement supplies would be from a bulk transfer not subject to yield reductions. This will also be the case from 2036, when Fens reservoir is in operation replacing further groundwater abstractions. Fens reservoir will have climate change incorporated into the declared DO/yield and for a 1:500 resilient DO.
Improvement 5: Clarify the use of best value metrics.	We outline the metrics we used through our ValueStream multi-criteria analysis in section 9.3.2 of the plan. These metrics are weighted and this then provides a value score for each programme of work, focusing on delivering the best value plan. This is how we have determined our best value plan.
Improvement 6: Improve the information provided in both the household and non-household demand forecast technical appendices. Cambridge Water should provide information in the plan about how it is using the	We have used the time between the draft WRMP and the revised draft WRMP24 plan to engage further with Artesia and our strategic planning partners to enhance the plan and improve all the elements of the plan including demand forecasts.

improvements suggested by its consultants to improve its demand forecasts.	We have also included our response to the recommendations highlighted by our consultants (on page 57 of appendix C1) in section 5.13 of the revised draft plan. This is a new section called "Ongoing demand forecast work".
Improvement 7: Review resilience of the plan in the context of the 2018 and 2022 droughts.	In January 2023, we undertook a review of the drought of 2022, highlighting the successes, lessons learned and future recommendations. We have included this as an appendix to the revised draft plan.

3.9 Everflow

Consultation Comment	Response
Regional and wholesaler water resource management plans do not adequately consider the potential of the NHH market to deliver water demand reduction. Some general commitments to the NHH market are included, e.g., retrofitting NHHs with smart meters alongside households over 10 to 15 year periods, but we would like to see more details about NHH smart metering and water efficiency plans before final WRMPs. Echoing MOSL's point from their WRMPs response, several WRMPs barely mention the NHH market in the main document, and in some cases, important NHH information is buried in appendices. The NHH market consumes 30% of water in England, so it's essential to include an overview of how it features in your plans in the main document. We therefore urge wholesalers to align with the national NHH metering strategy being developed by MOSL.	In our draft WRMP we included plans to reduce non-household consumption by 9%, aligned with the Environment Act target. We proposed to deliver this through the implementation of enhanced meter technology throughout our whole non-household population. In the revised draft WRMP we have further enhanced our options in this area to support this reduction and achieve 15% reduction by 2050. This is detailed in section 11.1.3 and include: - Water efficiency reviews and audits - Data reviews e.g. continuous use, to help identify wastage and leakage
We would like clarity on how many smart meters (AMI not AMR) you intend to deploy in AMP8 and beyond, including visibility for retailers on when and where they will be rolled out, to avoid duplication of effort or customers paying for loggers when they don't need to.	We have included this detail in our main report in section 11.1.3. Here we include the detail of our programme, including the number of meters per year. We're proposing an even profile of installations which equates to circa 3,500 meters per year for non-household customers. Our targeted roll-out programme will now be developed prior to 2025 and shared with retailers.
We would like wholesalers to align with the national NHH metering strategy position on data sharing. Proactive logging and continuous flow/high usage alerts for customers via retailers are also key to obtaining 'in	We will work with retailers to ensure that data visibility is readily available for them and for NHH customers.

the moment' conversations about water efficiency which NHH customers are more likely to engage with, so smart data should be shared with the customers' retailer. We would also urge wholesalers to pool their NHH benchmarking data (ideally nationally) and share this with retailers operating in their area, so that the benefits of big data can be realised and result in better targeting of water efficiency and leakage services by retailers.	
We would like more detail on how water efficiency services will be offered to different categories of NHH customers. We want to be able to offer water efficiency services consistently nationwide so that water saving is simpler for NHHs to engage with. We would prefer a nation-wide approach to demand reduction so that multi-site customers have clarity about the services and funding and/or incentives available to them.	We will look to prioritise our support to the highest water users initially, including a review of continuous flow users. We believe this will enable to us to identify the largest savings first. As the programme progresses, we will move to medium users. Many of our large multi-site customers have sustainability leads who have a strong focus on energy and water and therefore we will work with these teams to provide advice and support. In reality, there may be few gains to be had here, and we will focus on large single site users who may not have the internal support for this activity already. We are proposing a programme of household water efficiency audits and will adopt the same approach for small non household customers in the same area where appropriate e.g. hairdressers, shops etc. We will also take the same approach with our metering rollout. This is because we believe there are efficiencies to be recognised by combining these NHH customers with the local HH customers.
We would echo Waterwise's request last year for a wholesaler commitment to greater collaboration with retailers in the plan, and a more detailed plan for how they will deliver demand reduction in the NHH sector. This could involve: - Technical support with abstraction options - Providing a sterner 'police' type function when customers don't respond to retailers about potential leaks and over consumption (e.g., issuing leak notices and showing local	In developing our non-household consumption reduction plan, we have liaised with other water companies in both Water Resources East in order to agree a common approach. Section 11.1.4 details the Retailer engagement club project that we undertook with the other WRE companies to identify the best mechanisms to reduce water efficiency and how best to engage with retailers and non-householders in order to deliver our

connections with water deficits/risks to supply or the environment) - Sharing smart meter and logger data - Sharing plans for smart meter/logger roll outs - Offering white label services (as most wholesalers already do for meter reading) for leak detection and repair, water efficiency site surveys and installing water efficiency products. However, we believe a competitive market for these services would serve customers best, so do not think that wholesalers should offer these directly to NHH customers.	plan. We believe this is important so that Retailers can expect a consistent approach from the various Wholesalers with whom they work. This will lead to the most efficient way of engaging and operating with both retailers and non-household customers in order to deliver the maximum benefits.
Retaining TUBs and NEUBs for peak demand or droughts is regrettable for our customers, but if they must be used, we ask that the plan details how retailers will be involved in customer communications around these. Ideally communication protocols should be agreed in advance so that they can be sent out in a timely and organised way.	This information is detailed in our drought plan which was published in 2022. The link for this document can be found here and Appendix B details our communication plan.
We ask that all wholesalers: - Specifically detail their plans for NHH metering and water efficiency	We included our plans for NHH metering in our draft WRMP, and our revised draft WRMP now shares more detail on this plan and additional information our on NHH water efficiency plans. This can be found in section 11.1.4.
We ask that all wholesalers: - Align with MOSL led national approaches	We are committed to aligning with MOSL led national approaches wherever possible.
We ask that all wholesalers: - Think about how to incentivise retailers to deliver water efficiency or collaborate.	Our club project has been exploring this with retailers and we are committed to continue exploring this option.

3.10 Gamlingay Parish Council

Consultation Comment	**Response**
Gamlingay Parish Council wish to respond with regard to the issue of farmers water extraction rights. There are no references made to reduce in the proposed rate of extractions allowed by the farming community along our tributary , although there is plenty in the plan about individual residential consumers cutting down usage. There is a large extraction licence on the Potton boundary, which significantly affects water flow, and also farmers along Millbridge Brook also extract water	Our WRMP only addresses the abstractions licences held by Cambridge Water for public water supply. Those relating to farmers and other licence holders will be included in the Water Resources East regional plan and management policies are managed by the Environment Agency.

for their crops at a critical time for wildlife, invertebrates and fish life. Please can you advise in the plan how management policies will change with regard to reissuing extraction licences for farming purposes going forward?	

3.11 Green Party: Cambridge & South Cambridgeshire

Consultation Comment	Response
The WRMP needs to take a more pro-active approach to the large variability in rainfall and weather that is likely to become increasingly normal, and will require a commitment to the precautionary approach. The draft currently lacks a sense of urgency about the need for immediate action.	As part of the Water Resource Planning Guidelines for this round of WRMPs, we have to improve the resilience of our system to drought conditions, recognising the changes to weather patterns that you outline as a result of climate change. Our plan achieves this level of resilience upon implementation of the Fens Reservoir.
We believe the priorities should be to: • Rapidly reduce abstraction from the Chalk aquifer, including by capping abstraction at today's actual levels; • Take much more concerted and urgent action to manage demand, with actions that go beyond reliance on voluntary individual behaviour change.	Our plan outlines our two stage approach to reducing abstraction from the chalk aquifer. Our first stage will involve already quantified and understood licence caps across specific sources – some of these licence caps actually go beyond your suggestion and cap abstraction a lower levels than today's levels. This is why an additional supply side option is required in the form of the water transfer from Grafham Reservoir. The second stage involves further investigation between 2025 and 2030 to identify the full scale and the exact locations of reductions required to mee the Environmental destination outlined in the Environment Agency's National Framework for Water Resources 2021. Again, in order to enable these reductions we will need a new supply side option which is the proposed Fens Reservoir. Upon commencement of this, we can make these additional abstraction reductions. Our plan looks at reducing demand before increasing supply. The options selected do involve education of customers through

	actual meter data with advice and support to help customers make sustained changes to reduce their water usage and wastage. We are also proposing home visits for high consumption properties to deliver interventions to reduce usage and wastage as well as leakage. We are currently trialling flow regulators that could be installed at a property boundary to reduce flow to the prescribed pressure we must meet what will reduce water wastage. We are also supportive of the proposed "ARID" group, which would look to replicate the "RAPID" organisation for demand management focus. We believe that this focus and support will enable the delivery of the activities identified across water company WRMPs, as well as identify new opportunities. We're keen to work with the rest of the industry to deliver a consistent national message in order to deliver the scale of change required.
Other key points are: • The target of 110 litres per person per day by 2050 should be more ambitious – it should be 80 l/p/d as soon as possible • Introduction of TUBs and NEUBs • Universal metering to be rolled out as soon as possible • Acceleration of installation of water recycling and rainwater harvesting schemes in both old and new buildings.	**110 l/p/d:** As part of our optimisation work for our demand management options, we did assess the option to deliver 90 l/p/d by 2050. We found there was no route to achieving this unless the government introduce water labelling with minimum standards. However, at this stage they have said they are looking to progress without the minimum standards at this stage – in that circumstance we cannot achieve 90 l/p/d by 2050. Even with the minimum standards, the cost for this work was estimated to be over £100m – this works out to be over £11m per Ml saved which is significantly higher than the average unit rate and therefore cannot be deemed to be a best value approach. **TUBS and NEUBS:** Temporary Use Bans (TUBs) and None-essential use bans (NEUBS) application and triggers are developed and detailed within the drought management plan

	rather than the WRMP. However we have committed to a review of our drought triggers and this will look at the frequency at which these demand restrictions may be required as well as when these should be instigated. TUBs and NEUBs have a part to play in the reduction of demand. However, we know from 2022 from the companies that did use TUBs that reductions in demand are not sustained. We believe that we need to educate customers on the water resource situation and the critical link to the environment, and then support them to make sustained changes to their behaviours if we are truly to deliver the level of ongoing reduction we are targeting. This is the basis of our demand management plan, centred around universal metering, which will provide the data and information to support this activity. **Universal Metering:** As part of our optimisation, we have assessed delivering the universal metering programme by 2030. However, there are several reasons that we do not believe this is a viable options: • We have developed our plan with our supply chain to ensure that it is deliverable – accelerating the proposed programme would create supply chain issues with resources to deliver and meter availability. • All companies have ambitious metering programmes. This is putting a strain on meter stock, which is exacerbated by current world affairs. • Several companies have undertaken large scale metering programmes between 2020 and 2025 and found delivery challenging – we have liaised with these companies to understand

	the lessons learned and ensure we build a plan that reflects these. In Cambridge we already have a higher level of metering penetration than the industry average at 74%, and we acknowledge that 100% will not be fully achievable due to share supplies and other complexities, but believe our plan is ambitious and deliverable. **Rainwater harvesting**: We are working with Defra, Greater Cambridge Planning and developers to identify opportunities for rainwater harvesting and greywater reuse systems. These are significantly more cost effective when installed during a new build and we have encouraged developers to consider these mechanisms wherever possible and to strive for water neutrality.
We are uncertain that the pre-consultation comments from the Environment Agency (EA)2 on the draft WRMP have been adequately addressed. The EA states in these that "the reductions [to abstraction] required are expected to be significant and may cause large discrepancies between the forecast and actual baseline SDB. We expect the company to demonstrate in its plan that its abstraction is sustainable now and long term. As part of the Chalk Stream Restoration Strategy, we are calling an end to unsustainable abstraction and expect your plan to protect and improve the environment, considering both current and future challenges." In correspondence with the Cam Valley Forum, the Environment Agency had noted that a 60-70% reduction in abstraction at source from the Cam Chalk aquifer is needed to ensure river flows, as assessed by the Environment Agency.	Our draft WRMP outlines the licence caps that we will apply to our sources. These licence caps have been determined by the Environment Agency. Likewise, the longer term environmental destination has been identified from the Environment Agency's National Framework for Water Resources. They have shared the basis of their calculations for this and we have used these numbers in our plan for the future abstractions reductions we will deliver. We will clarify the true scale of these reductions and the exact sources these are required as through our investigations between 2025 and 2030 and this will be included in our WRMP29. We have developed our plan through collaboration with the Environment Agency and so are confident these abstraction reductions are aligned with their requirements, as outlined above.
Abstraction from the Chalk aquifer has to be reduced at source so that Chalk springs and headwaters run freely,	We are committed to reducing abstraction from the chalk streams to deliver sustainable abstraction and therefore

as they would under natural conditions, every year, whatever the weather.	restore and protect these unique environments.
There is… an urgent need for Cambridge Water, the relevant local authorities and the planning offices to work with the EA to discuss this fundamental conflict and identify potential solutions. Cambridge residents need reassurance that these concerns are being addressed, particularly with the recent news about the accelerated speed of climate change[5]. The view of the Green Party is that all development planning in Greater Cambridge should be paused until there is a better understanding of both future predictions for growth and jobs in the city, and future water supplies.	We are working closely with Greater Cambridge Planning, the Environment Agency and Defra to ensure that the growth in the Cambridge region is sustainable. We are working with the new Water Scarcity Working Group that has been convened by the Department for Levelling Up, Housing and Communities, the Environment Agency, Ofwat, central and local government and innovators across industries to accelerate plans to address water scarcity in the area. As part of this work we are exploring the role all sectors must play in ensuring the development is sustainable and the options and opportunities we can explore to achieve this. This proposal it outlined here Long-term plan for housing - GOV.UK (www.gov.uk)
Recovery, enhancement and protection of the natural water environment based on the catchment approach is essential. The consultation document pays very little attention to this and there is no mention of the 2021 Catchment Based Approach (CaBA) Chalk Stream Restoration Strategy, which emphasises the UK's global responsibility to protect chalk streams and calls for urgent reduction in damaging abstractions. As identified by the Cam Valley Forum, the health of the Chalk springs, headwaters and downstream rivers in the Cam catchment depends on an aquifer that has long been adversely impacted by groundwater abstractions. Since 1990, despite 14 schemes to address low or non-existent flows in some 30 springs and headwaters, low flow continues to severely impact wetland and stream biodiversity and contributes to the Cam Chalk aquifer rating of 'Poor' ecological quality. Low flow contributes to the growing impact of pollution and, as climate change progresses, the ever more frequent drying-out will further endanger the wildlife that depends on them, including protected species such as the water vole.	We have proposed an extensive chalk stream river restoration programme in our business plan for 2025 to 2030, which is due for submission in October. Our chalk stream restoration work forms part of our Water Industry National Environment Programme (WINEP). This is our programme of environmental improvement, where the WRMP focuses on water resource supply and demand. However, for the revised draft plan we have added section 11.10 which shares the detail of our WINEP programme, and more specifically, our chalk stream river restoration programme and how it links into the National Chalk Stream Restoration Strategy.
The most notable points about the proposed supply options are how limited they are, the uncertainty with which they are likely to fulfil the requirements that have been identified, and the enormous dependence on the	We have further expanded on our demand management proposals in section 11.1 of our revised draft management. In addition, we have added significantly

Fen reservoir. This emphasises how critically important the proposals are for demand reduction: as explained in the next section, we do not feel that adequate attention has been paid to these. We note with concern the comments in the consultation materials that there is a high probability of a shortfall in supply between about 2025 and 2030.	more detail regarding the different options we assessed into section 9.4.1. We are cognisant of the concerns around deliverability of the demand management activities. We have worked with the Environment Agency to develop additional scenarios to test our plan against, and these are detailed in the revised draft WRMP in section 11.7. In addition, we've added a new section to the revised draft WRMP, section 11.3, which outlines how we will ensure delivery of our demand management activity, how we're monitor progress, adapt to any changes and how we're report our progress.
Water transfers from (a) a source at Fenstanton (2 Ml/day) and (b) from Grafham reservoir (15 Ml/day) We agree that surface water transfers are necessary in the short to medium term to meet demand without increasing abstraction from the chalk aquifer, and that surface water transfers could potentially be used to supply the new reservoirs if they provide the best option. However, we feel that a clearer explanation and more transparency is needed about transfer of water between regions; it is essential that **every** region has enough water for people and the environment, and that the embedded carbon costs of transfer infrastructure are minimised.	The regional water resource management plans show the overall regional water resource requirements and connection between the other regions. These regional planning teams ensure that we do utilise water where it is in surplus by looking to move it to areas of deficit wherever possible, whilst ensuring the needs of the host region are still met. We have included more detail about our proposed Grafham Transfer in section 9.5.3.
Water recycling using water from one of Anglian's wastewater treatment works The non-technical summary states only that this will "*support flows in a key river in our Cambridge region. This would enable us to take water from the river without affecting the environment*." At the public webinar this was explained as referring to water treatment from Anglian Water waste water schemes. We can find no clear explanation of what this means in the main draft WRMP (beyond reference to the treatment works at Milton), and have not had the capacity to go through the detailed annexes. Exactly what is planned needs a much clearer explanation, given the concerns about sewage effluent and water pollution. We do however agree that if appropriately done and communicated, re-use (after purification) of wastewater from wastewater treatment works is one supply option.	We have included more detail on this scheme in the revised draft WRMP to ensure that it is clearer for the reader. This is in section 9.5.2.2.
The proposed Fens Reservoir As outlined in our consultation response, there are a number of issues to	We are committed to ensuring that the Fens Reservoir is designed with the ability

be considered including ensuring that the design maximises co-benefits for the public (e.g. flood management, leisure) and the environment. The Cam Valley Forum and other experts have previously also suggested options in the form of a distributed network of smaller water supply reservoirs within the Cam catchment; and creating infiltration basins in suitable locations, fed by surface water during high winter flows, to allow natural managed aquifer recharge. It would be useful to know if these have been investigated.	to maximise co-benefits as much as possible. Through our Fens Water Partnership, we have been collating key stakeholder views to feed into this planning process, and we obtained further detail on this through our public consultation. We are committed to continuing this level of engagement to ensure we identify the possible opportunities and develop the appropriate mechanisms for delivery.
50% reduction in leakage of the network of Cambridge Water pipes (from 2017/18 levels) by 2050, with a tripling of the rate of reduction by 2030. The public is well aware of the enormous leakage rates in the pipe network and recognise that this is due to the old infrastructure being very run-down and needing major repair and replacement – there has been much media attention on this. We are therefore surprised to see so little explanation of the reasons why the target for addressing this is so slow; it is very hard to understand why the water company feels that a reduction rate of only 50% cannot be achieved well before 2050. Questions have been raised at stakeholder engagement webinars but to date there has been no satisfactory response, and Cam Valley Forum are similarly concerned about this.	As part of the development of our revised draft WRMP we have taken into account your view and similar views from customers and other stakeholders. As such, we are proposing to accelerate our leakage reductions in the revised draft WRMP and will achieve the 50% leakage reduction target by 2040.
Household water use reduced to 110 litres per person per day by 2050 and nonhousehold water use reduced by 9% by 2037 We consider the target of 110 litres/person/day (l/p/d) by 2050, although in line with national policy and an improvement on the current situation, inadequate for the Cambridge area given the current water crisis. Cambridge, as a centre of excellence for sustainability and the environment, has real potential for being a leader in demonstrating how a more stringent and appropriate target of 80 l/p/d could be achieved. We would like the WRMP to reflect this larger ambition, as recommended by the Cam Valley Forum, and as being aimed for in other places, both nationally and globally. For new developments, 80 l/p/d is recognised as being readily achievable and is already being demonstrated at Eddington in Cambridge. The Greater Cambridge Local Plan: First Proposals (November 2021) included a proposed policy on water efficiency requiring that new	As part of our optimisation work for our demand management options, we did assess the option to deliver 90 l/p/d by 2050. We found there was no route to achieving this unless the government introduce water labelling with minimum standards. However, at this stage they have said they are looking to progress without the minimum standards at this stage – in that circumstance we cannot achieve 90 l/p/d by 2050. Even with the minimum standards, the cost for this work was estimated to be over £100m – this works out to be over £11m per Ml saved which is significantly higher than the average unit rate and therefore cannot be deemed to be a best value approach. We have been working with Developers and the Greater Cambridge Planning

housing development should be designed to achieve 80 l/p/d unless demonstrated impracticable. We consider that all major **new** housing and business development should therefore meet a design standard that reduces personal water consumption to 80 l/p/d, and be required to include water-efficient appliances and measures such as water harvesting and greywater recycling. The draft WRMP focuses very much on voluntary individual behaviour change, which should clearly be a part of the strategy but must not be relied upon to deliver the necessary reductions in demand: the efforts made during the 2022 drought were quite clearly inadequate (water usage increased) and a critical review of this failure is needed to identify a better approach. We would like to see a clearer summary of the pros and cons of the various inter-related options which include: • Universal metering and roll out of smart meters – see below in 3.3 • Water re-use and recycling – listed as a target for Demand Management, this is also a target for supply options and so is discussed above • Public awareness campaigns • Retro-fitting of existing buildings • Introduction of TUBs and NEUBs, currently only considered necessary in formally declared drought periods • Installation of water-efficient white goods	Authority to encourage building standards of 80 l/p/d. In addition, we already operate a developer incentive scheme which means that developers building to these lower standards do not pay a connection charge. We will be building on this for our next business plan too and will be taking into account best practice across the industry in this space. We recognise that more detail on the options included in our plans, including the risks, is required for the revised draft WRMP. Therefore we have included this in this updated document in the demand management options section 9.4.1.
Public awareness campaigns: Decades of campaigns on 'saving water' have failed to deliver the necessary reductions. We believe better results could be achieved through a holistic approach to water reduction in the home, including advice and support for retrofit (for example rainwater collection and grey water re-use within the home), rather than awareness campaigns which encourage small behaviour changes like taking shorter showers. Examples include group-buying schemes for water efficiency measures (for example installing greywater recycling systems, or simply organising small repairs like repairing dripping taps) in a similar way to solar panel group-buying schemes; and introduction of street-by-street projects (rather than by individual household) to help neighbourhoods implement sustainable drainage and water efficiency measures. Better and clearer information should be provided on water bills, showing much each individual	Our water efficiency programme that we have proposed will include undertaking home visits to identify ways to reduce usage and will also identify wastage and leakage. These visits will also deliver practical solutions to resolve these issues such as installation of water saving devices and support to resolve any leakage identified. We are also reviewing how we improve information on bills. It is difficult to provide usage in litres per person without knowing the exact number of people living in each property, which is difficult information to gather and keep up to date. However, we are exploring options to make usage clearer and more meaningful on bills.

uses, and also in units that are comparable across all statistics (litre/person/day seems to be the most common, but cubic metres are often referred to).	
Retro-fitting existing buildings: In order to reduce overall demand, retrofitting to reduce water use will be essential and is urgently required. This would include replacing inefficient fittings with new water-saving alternatives to installing water-butts and other water collection devices.	The current cost of retro-fitting to domestic properties is very high and therefore outweighs the benefits when compared to other water saving initiatives. There are potential opportunities to explore this across the non-household population; however since market opening, water companies are not funded to undertake this scale of work on non-household properties which are now managed by retailers and therefore cross sector working is required to help explore these options in more detail. We are working with developers on new builds to identify opportunities for rainwater harvesting and greywater reuse as this is significantly more cost effective when installed during build.
Temporary Use Bans (TUBs) for domestic properties and non-essential use bans (NEUBs) commercial and other activities: We agree with the Cam Valley Forum that a new baseline of annual restrictions on inappropriate uses of drinking water use should be established (e.g. a ban on household use of sprinklers, hosepipes, and high-pressure washers from May to August every year) and tightened progressively as necessary in dry weather in response to environmental triggers. In section 11.3.4 of the WRMP, Cambridge Water discusses the application of drought measures in relation to Regulation 19 of the Water Framework but this is highly technical and it is unclear what the recommendations are. We strongly urge the introduction of TUBs and NEUBs, as recommended in our response to the 2021 consultation on Cambridge Water's Drought Plan. In this way, everyone is playing their part in using water wisely. We believe that the majority of the Cambridge public will understand the need for this approach. A closer integration of Cambridge Water's drought planning with its overall water planning is urgently needed, as alluded to in our letter to the Chair of Cambridge Water in 2022.	Temporary Use Bans (TUBs) and Non Essential Use Bans (NEUBs) application and triggers are developed and detailed within the drought management plan rather than the WRMP. However we have committed to a review of our drought triggers and this will look at the frequency at which these demand restrictions may be required as well as when these should be instigated. TUBs have a part to play in the reduction of demand. However, we know from 2022 from the companies that did use TUBs that reductions in demand are not sustained. We believe that we need to educate customers on the water resource situation and the critical link to the environment, and then support them to make sustained changes to their behaviours if we are truly to deliver the level of ongoing reduction we are targeting. This is the basis of our demand management plan, centred around universal metering, which will provide the data and information to support this activity.

Labelling of water-efficient white good and household appliances: The proposed Government changes to the labelling of white goods and household appliances to show their water efficiency is seen as a solution in the WRMP. We welcome this but, given that the proposed national legislation will take time to come into force (it is still at consultation stage) and will then take even longer to have an effect (households will not automatically replace their existing appliances), this will not start to change behaviour for some time.	In our revised draft WRMP we have taken a more cautious approach to the benefits we believe water labelling will bring. The Government have stated this will be introduced in 2025 but, like you, we believe it will take time before the benefits are recognised. We have taken the low scenario of proposed savings and we have delayed the start of the benefits to 2030.
Roll out of universal smart metering between 2025 and 2035 We believe that the immediate priority should be to install meters in households where water use is currently unmeasured. Households which already have a meter – even a 'dumb' meter – can at least see their water use when they receive the bill and have an incentive to reduce it. We consider the target date to achieve universal metering far too distant, and recommend that it is brought forward to, at latest, 2030 in line with the target set by Anglian Water. With meters installed, pricing can then be used to encourage lower water consumption (recognising that there will need to be concessions for those who have to use large amounts of water, are on benefits etc...). The pricing structure could be such that the cost/litre increases above a certain level (e.g. 80 l/p/d) so that there is a clear financial incentive not to waste water. Other water companies (e.g. Severn Trent) have been installing smart meters much more rapidly, and there are several ways to do this. Single meters can be installed for groups of properties such as flats; the Council is also taking steps, through conditions in planning consents sought, to ensure that individual dwellings are fitted with the means to monitor and measure their own water consumption. Cambridge Water should, itself, be taking a more active role to ensuring that individual properties are metered. We have evidence from current customers that obtaining a meter is difficult and slow: householders have to ask for smart meters (these are not offered as a matter of course) and the process then takes a long time; to quote one householder "… *we asked Cambridge Water if we could look at being metered. They came round. Deal seemed to be we could go metered for two years and*	For our universal metering rollout we will be focusing on houses where there is no meter first for the reasons you suggest. We are currently unable to introduce tariff charging due to charging regulations set out by our economic regulator Ofwat. However we will be undertaking a trial of this method in 2024 in order to understand how it might work, what works to incentivise customers to use less water and how this could be rolled out across a wider customer base. As a result we will be sharing the details with Ofwat and hope that the charging mechanism will be reviewed in the future to enable this concept. Our WRMP includes these innovative tariffs from 2035 and believe this is a realistic timescale for installation of the remaining properties requiring a meter and these changes to be enacted. Cambridge Water already have a much higher meter penetration than companies such as Severn Trent Water as we are already at 74%. Our customer engagement work for the WRMP has also shown that customers are concerned about the impact compulsory metering will have on their bills, particularly in the current economic climate or for customers who have high water usage for medical needs. As such, we have to make sure we are engaging with customers to ensure we identify any concerns and can support customers through the transition.

then change our mind if we wanted to. And we have heard nothing since. I have given up phoning them, waiting 30 minutes and not getting through."	We are disappointed to hear about the poor service you outline and we will ensure that we develop the appropriate level of resource and structure required in order to deliver our universal metering programme. We have liaised with other companies such as SES who have done larger campaigns to ensure we take the learnings from their experience.
Lack of clarity on Stakeholder engagement Despite a long section on this in the draft WRMP, we feel that stakeholder engagement and the quality of public consultation has been poor. The average person in Britain has taken the existence of a plentiful supply of water very much for granted but, over the last 2-3 years there has been rapid development of public concern for the fact that this is one of the most water-stressed parts of the UK. It is not clear whether the water company has engaged with the many people who are genuinely concerned. The consultation documents go to some length to try and show that there has been extensive customer engagement that has taken place (on-line surveys, WRAP Advisory Panel, 2 research studies etc), but the detailed methodology and report on stakeholder and customer engagement that was provided is not easy to understand. Given the apparent extent of the consultation, it is very surprising that the current widespread public concern and interest in water supplies are not more clearly reflected in the proposals. Many of the proposed options seem to be based on what the customers "want" rather than what is actually needed to resolve the problems. We also have major concerns that the fact that Cambridge Water, operating in a highly water-stressed area, is owned by South Staffs Water (covering an area with a relatively plentiful water supply) may have an influence on the recommendations and plans for investment. This emphasises the concern that a water company based in the west of the country probably does not have the understanding and interests of its customers in the east that are required. We understand that the companies have a single stakeholder engagement panel for the two areas which differ widely in social structure, population, geology, and climate.	Our customer engagement work follows the structure outlined in the guidance from our regulator Ofwat. We have undertaken multiple sessions and forums with customers from all sectors of our community and have also undertaken stakeholder engagement sessions, including during the consultation process for our draft plan. Our approach has also been well received by our customer regulator, the Consumer Council for Water. As part of this engagement work we do share with customers the needs of our region and the challenges we are facing. We must also ensure our plan reflects the priorities of our customers and that customers find them acceptable and affordable. South Staffs Water and Cambridge Water operate under a single operating licence but are two separate regions under this. This is why Cambridge Water has it's own water resource management plan which reflects the needs of this operating region alone. It should also be noted that South Staffs Water is also classified as an area of serious water stress by the Environment Agency. Cambridge Water has staff based in the region in our office in Fulbourn Road, as well as at local depots. Senior management work across both regions and represent both regions equally. Therefore we are confident that all staff, from our Board the whole way down through our organisation, understand the challenges facing the Cambridge region

	and are committed to delivering the right outcomes for our customers and the environment. We have a single customer challenge panel because we have a single business plan submission to Ofwat due to our single operating licence. Customers who kindly form part of this panel are representing all of our customer base. However we do share specific regional activities and proposals through this group too in order to ensure regional needs are met.
Inadequacy of consultation Compiling a response to the consultation has been difficult as the majority of materials provided are far too technical for non-experts to understand, although we will all be directly affected by the issues set out. The non-technical summary briefly lists the proposed elements of the plan but gives no explanation of what these mean in practice (see examples below). The public webinar when it took place was useful, but was chaotically organised (initial dates were sent, but then cancelled as organisations had not firmly accepted – which was to be expected as they were looking for suitable representatives – and then a single webinar re-instated at short notice, largely as a result of certain stakeholders contacting Cambridge Water about the confusion). Only a proportion of individuals wanting to attend were able to do so, and the process reduced even further the confidence of many stakeholders. Furthermore, in their public stakeholder engagement webinar about the draft WRMP, on 13th April 2023, Cambridge Water stated that, between the closure of the consultation (19th May) and the planned date for submission of the revised plan to Defra (25th Aug), they will: • *Update the baseline demand forecast based on the latest property and population forecasts.* • *Review [their] demand management profiles to ensure alignment with the Environment Act interim targets. Provide more carbon data in the plan e.g. the carbon impact of [their] preferred plan and [their] journey to net zero by 2030.* • *Undertake a review of [their] drought triggers.* • *Include details and learnings from the 2022 drough*t.	We will take on board the feedback for the revised draft plan and look to simplify where possible. We do have to ensure we follow the Water Resource Planning Guidelines, set out by the Environment Agency, which details the content we should include, and as you say, some of this is technical in nature. We have tried to include most of the technical work in the appendices. Our non-technical summary is designed to be our more customer facing document which should summarise the document in a more digestible format, but we will review this document before it is published for the final plan to ensure that it is comprehensive. We also apologise for the confusion caused with the consultation events. We organised two separate webinars – however two days before the first event we had only received one acceptance and no other responses. As such we contacted all invitees to inform them that the event would be cancelled but that if anyone had any specific queries to please contact us and we could hold individual sessions. As a result of several people then saying they would like to speak to us, we reinstated both webinar sessions as planned. Some of these new elements, such as the learnings from the 2022 drought and the interim Environment Act targets, have arisen through changes made to the Water Resource Planning Guidelines

It is not clear if the new data and information obtained through these activities will be made available to the public before the revised WRMP is submitted to Defra.	earlier this year, and will therefore feature in the revised draft WRMP. We have also updated our demand forecasts to ensure they have the latest information in them, and we have worked closely with Greater Cambridge Shared Planning to do this. These will also be outlined in the revised draft WRMP. Our drought trigger review is an ongoing process outside of the WRMP and we have committed to sharing details of this with the Cam Valley Forum as we progress through this large piece of work.

3.12 Historic England

Consultation Comment	**Response**
In the final draft of the Plan we would recommend the addition of some paragraphs relating to the historic environment. For example, • Instead of just referring to environment it could specifically mention natural and historic environment. • WINEP investigations could also consider impact on the historic environment. • Environment enhancement and restoration in this section is very much focused on the natural environment. This scope should be widened to include opportunities to enhance the historic environment. • Restore natural and historic environment (for example peatland restoration can aid preservation of waterlogged archaeology. • Chalk streams and rivers are not the only environmentally sensitive areas. There is a need to identify and consider what areas of the historic environment are sensitive and vulnerable to change. • There is currently no reference to the historic environment in relation to peat restoration. We know that peatlands are very important in relation to archaeological preservation. It is important to safeguard preservation of archaic	We have made some amendments to text, where appropriate to reflect this terminology. The WINEP does not provide drivers for investigations into the historic environment, when these are not linked to legislatively driven objectives and outcomes. The historic environment would be considered at the scheme delivery level, as appropriate. Our WRMP is focused on the natural, water environment due to its primary purpose as a water management plan. Where the proposals may have an impact or opportunities relating to the historic environment, this will be assessed, and as appropriate in the delivery of measures be significantly more detailed. Chalk streams are a priority in our WRMP as they are most directly related to our current abstractions, and the reason for

peat during restoration works. You could add that healthy peatlands are also beneficial for archaeology. See our guidance Peatlands and the Historic Environment. and the government's England Peat Action Plan. • Whilst we appreciate the investigative costs, there is no mention for example of the public benefit new discoveries could have. There is the potential to highlight the opportunity for Cambridge Water to champion and protect our heritage and provide public access/knowledge to our past. • Environmental Destination – we want to encourage you to adopt a wider definition of the environment to include the historic environment as well as the natural environment. • Excavations can release a lot of carbon. Early engagement with Historic England and well researched Desk Based Assessments could help to avoid archaeologically sensitive areas and thereby help you to reach your environmental targets.	making sustainability reductions to our licences. We consider potential change to both natural and historic sensitive environments in our options assessments as required. For the WRMP this is a desktop exercise using available information. Peatland restoration is not considered in our WRMP as none of the options developed, or activities included, are in peatland areas, with the exception of the FENS reservoir which is being promoted through the separate SRO process, in which peatlands are being considered. At this point in planning, there is no indication that the options considered in the plan would reveal new discoveries as options aim to avoid impact to historical environment. However, if any discoveries were made we would submit to the appropriate agency. The definition of environmental destination in the WRMP context is set by the National Framework for Water Resources as set out by Government, Water UK and the National Infrastructure Commission (NIC). This is consistent criteria set out for all water companies and supported by the EA. We would consult with Historic England along with other agencies as any proposals develop to detailed desk study and construction stages
The Plan should also include a few paragraphs summarising why the historic environment is important in the context of water resource planning and management, what steps have been taken so far to consider the historic environment and how proposals will need to take the historic environment into account going forward.	We have included a new section, 11.9.5, in the revised draft plan that outlines this.

We would recommend that the following Historic England documents are referred to: Fluck, H., and Holyoak, V. (2017) Ecosystem Services, Natural Capital and the Historic Environment. Historic England Research Department Report No. 19/2017 (https://historicengland.org.uk/research/results/reports/19-2017). Historic England (2020) Heritage Counts: Heritage and the Environment (https://historicengland.org.uk/research/heritage-counts/heritage-and-environment/). Historic England has also produced a technical advice note in relation to Lakes and Water Features | Historic England which you may also find useful.	
We would greatly appreciate more clarity about the location of proposals where they are known, so that we, and indeed all parties, can consider the potential impacts of proposed development.	We have since shared this information with Historic England with certain caveats relating to security as per Security and Emergency Measures Direction (SEMD) legislation.
Supporting the proposed allocations needs to be a heritage impact assessment, at a level of detail proportionate to the proposal and local environment. The National Policy Statement for Water Resources Infrastructure (2023) states at Paragraph 2.5.7 that *"Any option included in a final WRMP will need to consider feasibility and reliability as well as taking account of potential environmental and social impacts".* We have yet to see evidence that would meet the above requirements relating to the historic environment. We cover this point in more detail in our letter. Finally, on page 10 for the bullet point relating to the Historic Buildings and Monuments Commission it might be helpful to put Historic England in brackets for clarity.	The options considered in our final plan include heritage impact assessments, at a high level in the initial screening and SEA process This has been amended in revised draft WRMP.
It is not until page 114 of the Plan in Table 40 that the selected supply options are identified. It is not entirely clear from this document what is being proposed and where. The final draft of the Plan should be much clearer in this regard. Clearer site addresses or search areas would be helpful. More detailed mapping would also be useful.	We have ensured that the revised draft plan outlines the final preferred plan, including the selected supply options, more clearly.
Paragraph 2.5.7 of the National Policy Statement for Water Resources Infrastructure (2023) states that 'Any option included in a final WRMP will need to consider	Options in our WRMP and those in the WRE regional plan have been subject to Environmental Impact Assessment. The

feasibility and reliability as well as taking account of potential environmental and social impacts.' By extension, proposals included in the WRMP that are also therefore in the WRE Plan should be subject to the same considerations.	WRE plan is non-statutory, therefore SEA does not fully apply, although the approach taken is aligned.
We are not aware of any heritage impact assessment work having been undertaken for the majority of the proposals set out in this plan. This is a concern and something we recommend is addressed. We would be happy to work with you to help support an impact assessment and provide expertise. It is important that a degree of heritage impact assessment is undertaken at Plan-making stage, (i.e. now) in line with the advice in our site allocations document referenced above. Please ensure that there is sufficient heritage impact assessment and an appropriate evidence-based approach to inform the site selections including the selection of broad locations (e.g. for Water Re-use Plant and transfers etc.).	All of our supply options are new, and therefore have been assessed at the appropriate scale, and would be developed further, including site selection and screening. Not all of the options locations are finalised and would be subject to review. We would welcome the support of Historic England when refining our options.
a) CW24 – 57 Reservoir – River Cam Extraction and Treatment works. We understand that this embankment reservoir is proposed approximately 2km downstream of Milton WWTW. We understand that the Horningsea kilns scheduled monument is located within the area proposed for the reservoir embankment. We also note that the pipeline would intersect Fulbourn Hospital, a Conservation Area at Risk. As the SEA notes this permanent loss of a scheduled monument would lead to a major negative effect. We are not entirely certain about the status of this proposal as it appears in some parts of the report and not others. Greater clarity is needed in respect of this proposal in the final draft of the Plan. We are interested to know what alternative sites have been explored for this proposal. The loss of a scheduled monument is a significant concern to Historic England and this is the first we have seen of the proposal. We would welcome further engagement on this scheme. b) Fens Reservoir We understand that the Fens Reservoir is a joint partnership between Anglian Water and Cambridge Water.	This option is in early development and if it remains in the preferred plan would be developed in further detail. The site proposed initially was selected as an engineering preference for the purposes of option assessment and comparison and has not been through a detailed site selection process. As the option develops a site selection screening exercise would be undertaken, we would welcome input from Historic England if the option is developed further. The Fens reservoir EIA has been undertaken by WRE and for Anglian water in their WRMP, and not duplicated in our WRMP. The site selection process has

It is therefore not clear to us why this proposal has not been included in the WRMP To the south of the site lies the Chatteris Conservation Area, with numerous listed buildings including the grade I Church of St Peter and St Paul.	been through a rigorous screening and Historic England would have been present for this. We regard the reservoir as a volumetric transfer within the WRMP, which identifies the need for the supply and have fully assessed the transfer pipeline options. We have ensured this is articulated more clearly in the revised draft WRMP document.
SEA Comments: The SEA is not particularly easy and clear to follow. Many of the schemes are just referred to as abbreviates and the locations are not always clear. This makes it difficult for us to verify the assessment, identify known risks and consider whether the appropriate heritage assets have been taken into account as part of the assessment. In terms of historic environment assessment, it would appear to focus primarily on the potential impacts of the Milton WWTW and River Cam reservoir option. It does not seem to offer a full review of all the options/proposals being considered, any of which are also likely to have impacts on the settings of heritage assets, even if not direct impacts. P20 List of Plans should also include South Cambridgeshire Local Plan and Huntingdonshire Local Plan. P27/28 We welcome the reference to water dependent heritage assets and archaeology that is sensitive to the water environment. P33 We welcome the Guide questions relating to heritage and water. However, it is unclear whether non-designated heritage assets will also be considered. Is the reference to Welsh language and culture relevant in this instance?	In order to publish our assessment as widely as possible , some location information requires redacting due to SEMD. We will update Table 5.1 to include a more detailed description of the options. These 2 options were shown to have potential impacts on the historic environment in the cultural heritage criteria, whereas the remaining options screened and in the preferred plan did not. The individual SEA matrices assess each option in turn and provide further detail on the effects against SEA Objective 15; Cultural Heritage. The purpose of the Environmental Report is to provide an overview of these and assess the effects of the plan as a whole. The SEA matrices have been made available. Local Plans are considered as per updated table 2.1. Non-designated heritage assets have been considered in the assessment and further detail is provided in the assessment framework in Appendix E: Definitions of significance. The reference to Welsh language comes from applying a methodology for assessment of Cambridge Water's WRMP that is consistent with

	South Staffs Water and Water Resources which includes Dŵr Cymru Welsh Water).
P39 The SEA recognizes that where routes etc. are uncertain this has made SEA assessment more difficult. The report states that where this has been the case the assessment reflects this uncertainty. However, in the case of cultural heritage we note that often a neutral effect is reported in the assessment tables rather than an uncertain effect which gives a misleading impression of likely impacts.	We will review our assessments in these cases and update where relevant to reflect the uncertainty in the assessment.
P49 Para 5 refers to option 51 on two occasions when we think it should read option 57.	The text has updated in the revised draft report – thank you for highlighting this.
P58 Table We are interested to know why Greywater recycling have scored as minor negative/unknown for heritage.	The full assessment is available in the SEA matrices. This was assessed as minor/unknown due to the potential to affect the significance of heritage assets during construction and due to the unknown location of the service reservoir. The option location provided to us to assess is an example location and therefore may be different when it comes to implementing.
P66 We are concerned that the cumulative score for SEA Objective 16 is assessed as having major negative significant effects. Whilst the commentary considers that many effects would be temporary, several would be permanent, e.g. loss of scheduled monument which is of considerable concern to Historic England. The significant negative effects identified, particularly for the WWTW and Horningsea reservoir should be addressed.	We have reviewed this with our environmental consultants and added further detail on this for the revised draft plan.
P72 6.6.7 We note the mitigation proposed for cultural heritage and landscape in this section. Fundamentally, it is important that proposals avoid harm in the first place. We would expect alternative options to be explored that seek to avoid harm in the first instance (not just for pipelines but for all proposals). Reference is made to enhancement which is welcomed. However, we suggest that examples of enhancement opportunities should be given in this section.	We have revised this text and included examples of enhancement opportunities where possible.

Appendix B P6 Historic England also provided a consultation response to the SEA Scoping Report in 2022 (copy attached). Please include our response in Appendix B. Appendix D P71 We note that Conservation Areas have not been included as designated heritage assets. The NPPF is clear that they are designated heritage assets and we would expect them to be considered in the SEA as such. Appendix D P72 We welcome reference to Heritage at Risk and also to archaeology in the context of water.	We have included this for the updated appendix which will be published with the revised draft WRMP at the end of September 2023. Conservation areas have been reviewed throughout the assessment but have not been omitted from the baseline section. This baseline was included in the SEA Scoping Report where HE had opportunity to provide comment on this. We will update this in the revised draft ER.
Overall, we are concerned by the lack of reference to the historic environment within the Plan; we observe generally a lack of suitable references to the historic environment in the Plan. Earlier in our response we explain why the historic environment is important in relation to water plans and have made recommendations on how the historic environment can be considered in the Plan in order to address these issues.	We have updated table 1 and section 3.3.2 and 6.11.1 to include the important links to the historic environment.
Paragraph 1.3, it would be useful to be consulted at the earliest opportunity in order to manage resources internally and to ensure that implications for the historic environment are considered at the outset.	We will ensure that Historic England is consulted as a key stakeholder throughout our plan development.
In relation to the SEA we have some concerns about the extent to which some of the projects have been assessed for historic environment impacts (with a neutral assessment rather than unknown for example), the lack of consideration of Conservation Areas which are considered designated heritage assets in policy terms, and lack of clarity in relation to non-designated heritage assets. More assessment is needed even at this early stage to inform decisions about site selection. Further analysis of impacts on heritage would be welcomed.	We will review assessments and update as necessary but we would like to draw attention to the assessment matrices. Conservation areas have been reviewed throughout the assessment but have not been omitted from the baseline section. This baseline was included in the SEA Scoping Report where HE had opportunity to provide comment on this. We will update this in the revised draft Environmental report.
We note that whilst the WRMP includes two water transfers, Table 6.1 of the SEA includes several other transfer options (75A and 75B). Please ensure consistency between these two documents.	The options being considered have been developed through the assessment process, and the SEA has been updated to reflect the revised draft preferred plan. It

	will be published at the same time at the end of September.

3.13 Hobsons Conduit Trust

Consultation Comment	Response
Therefore, turning to the draft WRMP the Trust welcomes the measures that are proposed: - to reduce total leakage - to reduce household consumption to 110 litres per person per day (and to seek ways of reducing the target consumption toward 90 l/ pppd for new developments. Eddington is the worked example in Cambridge). - to install smart meters for all customers by 2035 - to reduce abstraction to a lower level ***but not by the proposed date of 2050. This is far too late, and simply not good enough.*** Damage to the environment caused by abstraction is already serious, visible and increasing. 2050 should be the date by which ***all*** regular abstraction for public supply by CWC ***ceases permanently.***	We appreciate your concern regarding the level of abstraction reduction required from the chalk aquifers. However all water that is sourced from either rivers, reservoirs or underground water sources must have an abstraction licence. Fens Reservoir will be supplied by rivers in the area and therefore will also require various abstraction licences. Therefore it is not possible to cease all abstraction if we are to continue providing water supply. Through our proposed licence reductions we are committed to sustainable abstraction levels that restore and protect the environment now and in the future.
Every possible effort must now be made to accelerate the building and bringing into service of the Fens Reservoir, along with further substantial similar or networked alternatives to abstraction from the chalk aquifer.	We are progressing the Fens Reservoir and Grafham Transfer at pace and believe that these cannot be further accelerated at present due to their dependencies on other schemes and planning orders and consents. The Grafham Transfer will only be available to us when the Grand Union Canal resource option is in place which allows Affinity Water to reduce its water transfer from Grafham Water. The Grand Union canal option is also progressing through RAPID to ensure delivery is accelerated. Fens Reservoir is also progressing through the RAPID process and 2036 is currently the earliest date we believe the scheme can be delivered. However in the announcement from Department for Levelling Up, Housing and Communities, a view to identify how the Fens Reservoir could be accelerated is part of the remit of

	the new Water Scarcity group. This proposal it outlined here Long-term plan for housing - GOV.UK (www.gov.uk).
In the meantime, the WRMP looks to put back or otherwise ease the restrictions on licenced abstraction that the Environment Agency will impose from the end of this decade. Whilst this removal of headroom is undoubtedly necessary and welcome, the Trust cannot look favourably on a WRMP that tries to avoid taking measures such as accelerating more bulk trading/import of water from Graffham Water by seeking latitude against the reductions that the Environment Agency is bringing in.	We are fully supportive of the abstraction reductions proposed by the Environment Agency and are keen to deliver these as soon as we are able. However to enable these, we need alternative supply options to be in place. The majority of these options rely on other water companies to support due to the fact our geology is nearly wholly chalk and therefore there are very few options available to us in our existing supply area. Our draft plan outlined our option to take 15 Ml/d of water from Grafham Water in 2030. This is the maximum amount of water Anglian Water have stated would be available and the date of 2030 is also dependent upon Anglian Water installing a new strategic main from Grafham to Rede which we can then connect to. Our plan selects all available water supply options – any timing is due to the development time associated with each option. Since the draft plan and updates undertaken by Anglian Water to their modelling and following feedback from the Environment Agency, this 15 Ml/d of water is no longer available. Instead, we have worked with Anglian Water and Affinity Water to develop an alternative – this options means that Affinity Water would build a larger Grand Union Canal Scheme (bringing water down from the Midlands) which would allow them to reduce their current transfer from Grafham and enable water to be available for Cambridge Water. In this situation more water would be available and our revised draft WRMP proposes to take the maximum amount available of 25 Ml/d. However this scheme relies on the Grand Union Canal to be in place to free up this water, and the current timescale for this is 2032.

Instead of trying to put off or swerve the inevitable, Cambridge Water should be using this WRMP to reconfirm its absolute commitment to stop all abstraction by 2050, and to take immediate measures that will allow it to maintain supply margins whilst fully observing the Environment Agency's reductions in available licenced volumes.	As stated previously, we are unable to stop all abstraction as any mechanism of taking water from the environment, including reservoirs, need abstraction licences.
Whilst it is commendable that CWC proposes to raise awareness among its customers, as one of those myself I fail to recognise that enough has yet been done in this regard. Along with many residents I am astonished that TUBs have avoided by CWC. Introduction of such measures would reinforce awareness of the precarious water situation in a populace who are generally alert to concerns about the environment and related matters. CWC could and should be doing a lot more to convince customers to be frugal in their use of mains water.	Temporary Use Bans (TUBs) application and triggers are developed and detailed within the drought management plan rather than the WRMP. However we have committed to a review of our drought triggers and this will look at the frequency at which TUBs may be required as well as when these should be instigated. TUBs have a part to play in the reduction of demand. However, we know from 2022 from the companies that did use TUBs that reductions in demand are not sustained. We believe that we need to educate customers on the water resource situation and the critical link to the environment, and then support them to make sustained changes to their behaviours if we are truly to deliver the level of ongoing reduction we are targeting. This is the basis of our demand management plan, centred around universal metering, which will provide the data and information to support this activity.
In summary the Trust's view is that the targets being set for coming off the chalk-based supply are insufficiently ambitious in terms of both timing and volume. The much greater emphasis in this WRMP on environmental concerns is most welcome, but what is proposed in the WRMP in order to reduce CWC's over-reliance on abstraction from the chalk aquifer is, regrettably, far too little, much too late.	Our plan looks to reduce our abstraction from the chalk aquifers by over 50% by 2040. The abstraction licence caps have been determined by the Environment Agency, and we will be undertaking investigations between 2025 and 2030 to determine the scale of the further abstraction reductions required in order to meet the objectives in the Environment Agency's National Framework for Water Resources.

3.14 Marshall Group Property

Consultation Comment	Response
The draft Water Resources Management Plan (WRMP24) includes a housing growth forecast of 41,250, which appears to align with those provided by Greater Cambridge Shared Planning (GCSP) in 2020 (42,000). This suggests that the draft WRMP24 has not accounted for the updates to the Greater Cambridge Local Plan (GCLP) and therefore may not account for the development of Cambridge East.	Thank you for providing the detail. We have been working closely with Greater Cambridge Shared Planning since the submission of our draft plan and we have jointly agreed our new household and non-household property and population forecast. We are now confident our forecasts accurately represent the current local plan.
We believe water re-use by way of rain water harvesting (RWH) and grey water recycling (GWR) at a community or district scale should be a priority and should be offered by water, sewerage and NAV undertakers under application for adoption (and ultimately legislated under the Water Industry Act 1991) where these prove viable.	We strongly support the installation of RWH and GWR infrastructure into new developments. Our plan does include options to look at incentivising developers to deliver these schemes and we have liaised with several developers over recent months to discuss these proposals further. Currently we need to ensure that the balance of cost for this is balanced accordingly and we believe this does not wholly sit with a water company to fund. We also believe there is a key national role here, similar to initiatives such as solar panels and ground source heat pumps, where there is a benefit to a clear delivery scheme for new technology that delivers national benefits.
In addition, smaller and building integrated owner/tenant operated systems with individual pumps will likely require more energy and emit more CO2 in their operation than potable mains water. They also place a burden on the consumer/owner/tenant to operate these systems, which ultimately may not be maintained and may be removed thus wholly negating their benefit. Should the burden of water re-use infrastructure and their environmental benefit be on building occupiers or water undertakers?	These are indeed areas that need further development as these technologies develop. Currently water companies are responsible for all water assets outside of the property boundary with all pipework inside the property boundary the responsibility of the homeowner. Based on this current arrangement, water re-use infrastructure would be the responsibility of the homeowner. We are happy to be part of any national level discussions on how these systems should work in the future.
Non-potable water re-use systems (RWH/GWR) at a community or district level must be considered ahead of small standalone building integrated systems. Large scale developments and hybrid developments that might benefit from these	We are currently working closely with Defra, the Environment Agency and the Department for Housing, Levelling Up and Communities as we look to explore additional opportunities to address some of the water scarcity issues in

systems should be tested for techno-economic viability upon application. An equitably apportioned contribution should then be derived and offered to large scale residential and mixed use or hybrid developments. The community non-potable water re-use system would then be adopted by the incumbent water and sewerage undertaker(s) or via an embedded network operator under an Ofwat approved NAV appointment.	Cambridge. Developers will also be involved in the new Water Scarcity group set up by the Government in order to feed in ideas and options such as this.
Currently Thames Water offer 'rewards' to housing developers in the guise of infrastructure charge rebates: There is a very small rebate for reducing PCC to 110 litres, with slightly improved rebates for providing water re-use systems, and up to £1800 per dwelling for water neutrality. Following attendance at Thames Water's recent developer day, we understand the take-up of this 'environmental reward' is very poor, which is perfectly understandable given other commitments on developers, for example S106 contributions (soon to be replaced with the Infrastructure Levy), Biodiversity Net Gain of plus 10%, Part L of the Building Regulations and Future Homes Standard requiring the switch to building integrated or networked heat pumps and huge improvements to fabric, and new changes to Local Planning houses numbers (as well as changes to mortgage applications). A very small contribution to a very expensive RWH/GWR system may not be viable.	We also offer developer incentives and are keen to keep developing this system further in the future. We will engage with developers in our area as we do this.
The water neutrality hierarchy as illustrated above does not capture managed aquifer recharge (MAR) via infiltrating Sustainable Drainage Systems (SuDS). MAR must be allowable in qualitative and quantitative terms where existing permeable surfaces are recovered and water directed back into groundwater resources rather than through positively drained sewerage infrastructure to watercourses or treatment works.	Aquifer Recharge options are included in the Water Resources East regional plan.
If water and sewerage undertakers or Local Authorities or other appropriate bodies can develop a fully tested and commercially workable water efficiency retrofit (off-setting) model, then developers would very likely consider contributing to this in support of full 'water neutrality' certification.	We are keen to work collaboratively with these sectors to help identify how retrofitting can deliver more of a role in managing water demand.
There is a critical link between the delivery of the planned water supply infrastructure improvements	We are working closely with WRE and Anglian Water to progress the development of these

(i.e. new bulk supply transfers and reservoirs) and the ability to deliver the growth identified by GCSP in their Local Plan process, both in terms of employment growth and the delivery of new homes to support this. Without certainty or confidence in the timelines for delivery of the required water infrastructure improvements, reduced development targets may be necessary in the Local Plan and / or developers and other infrastructure providers may be forced delay planned developments which will impact on the growth of Greater Cambridge and the wider region. We therefore seek reassurance that all reasonable steps are being taken to prioritise the delivery of the cross connection from Anglian Water, and the proposed Fens Reservoir, and that we can take confidence in the published timelines for these.	key options. In addition, we're working with DHLUC, Defra, Greater Cambridge Shared Planning and the Environment Agency to ensure the growth outlined in the local plans can be delivered sustainably. Following the announcement by the Prime Minister and the Secretary of State for DLUHC, Michael Gove, on 23rd July, we are working collaboratively with all organisations involved in the new Water Scarcity group and welcome the joint approach to resolving the water scarcity challenges in Cambridge. As part of this announcement, there is a request to identify any potential opportunity to accelerate the Fens Reservoir, which we are fully supportive of.

3.15 Customer (MF)

Consultation Comment	**Response**
First of all, I want to say that publicity for this Cambridge Water public consultation appears to have been non-existent: I only found out about it three days before the closure deadline, through a political policy group that I'd joined. Checking back on a Google search of News items ref "Cambridge water WRMP consultation", there do not seem to have been any at all; only one local news article from January about the previous Anglian Water consultation on their own WRMP. Which begs the question: why do both Anglian Water and Cambridge Water need to each have a WRMP, and each run separate public consultations about them?! Both consultations have been inadequately advertised, have not reached their customer bases, and are merely a cynical box-ticking exercise.	Anglian Water and Cambridge Water are separate companies with separate operating licences, and therefore are required to produce separate plans. These plans cover our individual operating areas for clean water and focus on our individual supply and demand balances. Our consultation process is promoted on our website and our social media accounts, as well as emailed out to stakeholder organisations. We also hold stakeholder engagement events where we shared the details of our plans and sought comments, questions and feedback. We will take on board your feedback and review whether there are opportunities to reach a wider customer base for future consultations.
As far as the plan itself goes, I want to express my utter dismay at the pathetic lack of ambition in terms of how much and how soon you are aiming to reduce demand for water from household customers. If your quoted average usage figure of 140 l/p/d is really true, then there must be a huge	We collect data from household meters in the region to determine usage which accounts for 74% of customer usage. These meter readings give us exact usage levels from which we calculate the current consumption figures. For unmeasured households we use consumption meters that we have installed in our network.

number of households using way more water than is needed for reasonable daily living requirements.	We know that metered customers use less water than unmetered customers which is a key reason for our plan to introduce universal metering for all.
All your talk about needing to replace fittings and appliances in order to possibly reach your own unambitious lower usage targets is just a big con to sell consumers more stuff that we don't need. Anyone who's currently using 120 l/p/d or more could easily reduce their usage just through simple changes of habit, no need to change any devices; and they would all be strongly incentivised to do it if their metered rate went up drastically above a perfectly reasonable 'daily living' allowance such as say 80 l/p/d. Instead of sending those shiny leaflets to all your customers asking them to save a few litres, if you just collect one extra data item for each household – how many people live there – then you could usefully present all your metered bills showing exactly what their actual daily usage has been. (Initially you could make a sensible guess as to what that 'number in household' data is for each customer, based on say their rateable value; then let customers update it as needed.)	As Cambridge Water, we do not sell any fittings or appliances. Through our Get Water Fit offering, customers can request free water saving devices to install in their homes, such as water efficient shower heads and flow regulators. We calculate an average household occupancy based on the number of properties and the total population in our region, but appreciate that this does not give individual household level information. Whilst we could look to collate data for each household, customers would have to be willing to share this data and keeping it up to date as people move means that it is likely to quickly be out of date. However we do agree that we could improve the information provided on our bills to help make it clearer for customers to understand their usage, and we are working on improving this.
I strongly support and urge you to introduce universal metering, and I think this should be done urgently without any delay or debate. The new trend for 'smart' meters is a diversionary tactic which just serves to delay the metering rollout; don't worry about smart meters, just get on with ensuring universal coverage of 'dumb' meters, so that all customers are paying for what they use. I can't see any reason why you cannot roll out meters to your remaining 9% of un-metered customers by say the end of 2024 at the very latest? Obviously, there would need to be concessions on bills for those with medical conditions who need lots of water, but we really have to make sure that people who needlessly use excessive amounts of water are paying for it. To that end, I think that as well as eliminating the flat fee [i.e. un-metered] option, you must move away from the uniform rate type, and instead adopt either an increasing block rate, or a water budget based rate which increases with usage	We currently have approximately 26% of our customers that are unmetered. We are able to introduce compulsory metering provided we have customer support for this. Our customer engagement that we have undertaken for this WRMP has shown that we do have support, but that customers are worried about the financial impact this may have and want assurance that larger families or those with medical needs that increase water usage are not penalised. Therefore it is important that we work with the remaining customers to understand these impacts and ensure we put the right support mechanisms in place. We sought funding from Defra to accelerate our metering programme and were successful in this bid, and so are looking to now progress with this. Currently we are not able to charge customers on our tariff basis – this is due to the regulatory charging regimes set out by our economic regulator Ofwat. However, we are proposing a trial that we will undertake in

(that type may be more flexible to allow for those with medical needs etc.).	2024 to help identify how such a scheme might work and the benefits. We will look to incentivise customers to use less water by reducing charges for lower usage. Our plan then looks to roll this out across our whole customer base in 2035 once we have smart meters across all of our customers, assuming Ofwat make the changes required to the charging regime to enable this.
I fear that there is no genuine drive within Cambridge Water or Anglian Water to reduce water usage, because why would you want that when you are fundamentally a profit-seeking company, whose only goal is to grow your business by selling more and more of your sole product in order to make your various, mostly foreign owners richer. There will never be a worthwhile Water Resources Management Plan that actually works to preserve this life-giving resource unless the whole industry is brought into public ownership and run for the benefit of the people and the planet.	Every 5 years we submit a business plan to Ofwat outlining all of the activity we propose to undertake over the next 5 year period and the costs for that work. It is this plan that determines the cost of the bills and so these are determined in advance. This process determines the maximum revenue that we can collect from customers bills, and therefore higher water usage does lead to higher profits. Saving water is in the interest of everyone as we look to protect and safeguard both our environment and our future water supplies.

3.16 MOSL

Consultation Comment	**Response**
Despite Defra's guidance to consider the NHH market in companies 'best value' plans, several WRMPs make minimal reference to the market in the main document. In some cases, important NHH information is found only as part of the appendices. Considering that the NHH market accounts for 30 per cent of water consumed in England, it is essential that key points are included in the main document – not only as business customers have a key role to play in supporting the industry meeting its demand reduction targets, but also because NHH customers' awareness of water security challenges remains low.	In our draft WRMP we included plans to reduce non-household consumption by 9%, aligned with the Environment Act target. We proposed to deliver this through the implementation of enhanced meter technology throughout our whole non-household population. In the revised draft WRMP we have further enhanced our options in this area to support this reduction and achieve 15% reduction by 2050. This is detailed in section 10.1.3, where we demonstrate how our activities will deliver reductions greater than these targets.
Just one per cent of NHH customers use half of the water in the market (three per cent use nearer 70 per cent – or 20 per cent of all consumption). Just 11,000 large meters and 152,000 medium-sized meters account for 72 per cent of	Our WRMP proposes to fit enhanced meter technology to all non-household customers. We have also worked with retailers to identify the highest consumers and propose to work with retailers to

consumption in the market. This represents a significant opportunity for water companies to address a large proportion of the market's water usage through a targeted programme of smart meter replacements or upgrades (AMI, AMR, smart loggers, etc.).	provide water efficiency reviews and leakage detection through AMP8 to these customers. We have prioritised these businesses due to the volume of water utilised and therefore we feel these provide the largest scope for water savings. We describe this in more detail in section 10.1.3.
Wholesalers that have rolled out smart meters to date have also identified around 25 per cent of the water being used by NHH customers is continuous flow – a large proportion of this could be leakage and/or wastage.	Our proposal looks at continuous flow and we will look to undertake a review of all of these customers in AMP8. This is specific learning from our engagement with Thames Water who saw success in this area in their work on this in AMP7.
I would like to remind you of the research MOSL commissioned from Artesia Consulting in 2022, which established a strong business case for rolling out smart metering to NHH customers at the same time as domestic customers. It also recommended companies without large-scale meter investment programmes would benefit from replacing or upgrading selected NHH customers' meters, particularly the largest customers and/or where businesses are in close proximity.	We worked with Artesia in the development of our NHH options for our draft WRMP and have included the enhanced metering technology for all NHH as one of these options using the benefits identified in their report for MOSL delivered in 2022. In our draft plan, this option is selected as one of our preferred options. In our draft WRMP we proposed to undertake installation of enhanced meter technology to all our non-household customers between 2025 and 2035 which is aligned with our household customer universal metering programme. This is due to the efficiencies we believe can be realised by combining the programmes in this way and aligns with the conclusion of the Artesia report in 2022.
One million of the smaller NHH customers are virtually indistinguishable from households in terms of the amount of water they consume, how they use water (toilets, sinks, etc.) and meter sizes. We recommend that wholesalers treat the smallest NHH customers effectively as households when it comes to meter replacement programmes, water conservation advice and devices, in order to minimise operating costs and maximise the economies of scale.	Our plan proposes to fit smart metering technology across our whole customer base, both household and non-household, between 2025 and 2035. We also believe that by aligning these two programmes we will achieve efficiencies and maximise the benefits of community communications and engagement as a result.
Greater use of the research (A Strategy for Enhancing Metering Technology (mosl.co.uk)) by MOSL and the Metering Committee to determine the business case for NHH smart metering and the benefits of making meter data available to retailers and customers.	We will be working with retailers to ensure that data visibility is readily available for them and for NHH customers.

Clarity on the number of smart meters you intend to deploy in AMP8 and beyond – visibility for retailers on when they will be rolled out and where will help avoid duplication of effort.	We have included the annual number of meters we intend to install, across both domestic and non-household properties, in 11.1.3 and 11.1.4 of the document. We will develop the detailed rollout plan over the next 12 months and ensure we engage with both retailers and non-household customers to communicate this.
Where appropriate, cross-referencing the findings of other water companies smart meter rollouts to support smart meter proposals and the scale of water saving opportunities.	We have liaised with South East Water, who have undertaken a universal metering rollout programme, to understand the approach taken, the success and lessons learned in order to develop the most efficient rollout programme, including resources, customer engagement and delivery mechanisms. In addition, we have taken the evidence from Anglian Water and Thames Water who have undertaken extensive smart metering campaigns in AMP7. They have produced detailed analysis to show the savings achieved through the installation of a smart meter, and in our revised draft plan we have adopted a figure of 13% based on the Thames Water findings.
Explanation of how water efficiency services would be offered to different categories of NHH customers – multi-site, industrial customers, commercial/offices etc.	We will look to prioritise our support to the highest water users initially, including a review of continuous flow users. We believe this will enable to us to identify the largest savings first. As the programme progresses, we will move to medium users. Many of our large multi-site customers have sustainability leads who have a strong focus on energy and water and therefore we will work with these teams to provide advice and support. In reality, there may be few gains to be had here, and we will focus on large single site users who may not have the internal support for this activity already. We are proposing a programme of household water efficiency audits and will adopt the same approach for small non household customers in the same area where appropriate e.g. hairdressers, shops etc. As with the metering rollout, we

	believe there are efficiencies to be recognised by combining these NHH customers with the local HH customers.
Explanation of how you plan to work with retailers collaboratively to engage with customers to reduce water consumption and carry out water efficiency interventions.	We have undertaken a club project with other water companies including Anglian Water, during the development of the draft WRMP where we have engaged with retailers to understand how best to work together to achieve these water efficiency objectives. This includes exploring incentive mechanisms, and we are looking to continue building on this work throughout the rest of AMP7. We also include more detail on our plans in the updated section 11.1.3 of our revised draft WRMP.
Exploration of how you plan to work with retailers to avoid denial of PR24 outperformance payments – e.g., a pain/gain sharing mechanism or incentives for retailer water efficiency offerings.	We have undertaken a club project with other water companies including Anglian Water, during the development of the draft WRMP where we have engaged with retailers to understand how best to work together to achieve these water efficiency objectives. This includes exploring incentive mechanisms, and we are looking to continue building on this work throughout the rest of AMP7.
Ensuring references to 'customers' are clear, in terms of whether you are referring to households, NHHs or all customers.	We have reviewed our plan narrative and made any necessary clarifications where we believed it may be unclear as the customer group.
A clear statement regarding the recognition of the size and importance of the NHH market and the role it plays in delivering your WRMP, reducing water demand and wastage.	We have included a paragraph in section 11.1.4 which supports this point by providing detail around the scale of our non-household market, the challenges and the opportunities for water demand reduction and the key role this plays in our WRMP.
Reference to Defra's nine per cent water reduction target for the NHH market by 2038 and your detailed plans for achieving this target.	We have included more detail in section 11.1 in the revised draft WRMP which details the Environment Act targets and how our WRMP aligns to the delivery of these. Section 11.1.4 provides the detail as to how we will achieve the 9% non-household consumption reduction target.
In the final plan, MOSL would like to see water companies include: a country-wide approach to demand	In developing our non-household consumption reduction plan, we have

reduction, regardless of whether water company regions are designated as being 'water stressed' or not, recognising all areas have local demand challenges.	liaised with other water companies in Water Resources East in order to agree a common approach. Section 11.1.4 details the Retailer engagement club project that we undertook with the other WRE companies to identify the best mechanisms to reduce water efficiency and how best to engage with retailers and non-householders in order to deliver our plan. We believe this is important so that Retailers can expect a consistent approach from the various Wholesalers with whom they work. This will lead to the most efficient way of engaging and operating with both retailers and non-household customers in order to deliver the maximum benefits. As part of this work, we have also spoken to other water companies who are already proactive in this area e.g. Thames Water, in order to identify best practice and lessons learned, as well as clarify the costs of activities and the benefits delivered. We are also supportive of the proposed "ARID" group, which would look to replicate the "RAPID" organisation for demand management focus. We believe that this focus and support will enable the delivery of the activities identified across water company WRMPs, as well as identify new opportunities.

3.17 National Farmers Union (NFU)

Consultation Comment	Response
Q3. Do you support our preferred plan to install smart meters for all customers by 2035? The NFU is not in a position to agree or disagree but welcomes further conversations. It is important that the messaging around compulsory metering is clear and concise and outlines the remit for the metering and the benefits to the customer. It is essential that there are robust data security and data governance mechanisms to ensure that data are used only with the consent of those who supply it. Any large-scale	We currently have approximately 26% of our customers that are unmetered. We are able to introduce compulsory metering provided we have customer support for this. Our customer engagement that we have undertaken for this WRMP has shown that we do have support, but that customers are worried about the financial impact this may have and want assurance that larger families or those with medical

data should be aggregated and anonymised to protect customers. The NFU asks that the messaging encompasses best practice use of water and particularly looks at an integrated approach that supports the multi-sector approach which can be used in times of stressed/limited water availability e.g., droughts.	needs that increase water usage are not penalised. Therefore it is important that we work with the remaining customers to understand these impacts and ensure we put the right support mechanisms in place. We believe this data will enable us to provide tailored information to customers about their water usage, and we will then be able to educate, advise and support them to make informed choices to make sustained changes to their water usage. In addition, we're proposing home visits to high consumption households to provide a more detailed review of usage and wastage and support through installation of water saving devices as well as identification of leakage. We are keen to work with the NFU and other sectors to produce some educational material that we can share with customers to explain the current water resource challenges and how these impact different sectors, particularly in drought situations, to help impress upon our customers the wider ranging need to reduce consumption.
Q4. Do you support our environmental ambition to reduce abstraction from existing sources to a lower level (known as 'Business as Usual Plus') by 2050? In our view, meeting its responsibilities under the Water Framework Directive should be Cambridge Water's top priority. We would like to see continued activity on protecting the water environment. Our members are very aware of the impacts of the water industry activities on the water environment. Farmers are continually asked to improve and change practices to improve their environmental performance and reduce water impacts. We must all continue to work together at the catchment level to deliver continual improvements. It is also important that these joint improvements are communicated to local communities. Landowners and land managers can be key in providing catchment based and nature-based solutions and we urge Cambridge Water to engage the sector in conversations and discussions for future work to ensure	We have a team of catchment advisors in the region who work with farmers to help reduce fertiliser and pesticide use and run-off, as well as improve drainage and chemical storage, all to assist with water quality. We will continue to expand this over the coming years to deliver further benefits. We have been expanding our work with farmers and landowners in our catchment and are keen to work with the NFU to further expand our activities to benefit all. All abstractors in the catchment are working together in order to achieve the environmental destination in the most efficient way. Water Resources East play a key role in ensuring this process and we continue to work with them to deliver this.

all opportunities are explored at a multi sector level. This will enable an integrated approach to both land and water management. A further question to address is, how can this be achieved through programmes such as WINEP (Water Industry National Environment Programme)? The WINEP looks to deliver an integrated approach to water management as well as environmental protection and benefits, as many of the options listed in Cambridge Water's WRMP states, and the NFU feels this programme must involve the agriculture and horticulture sector as landowners and land managers. When reviewing the impact of land use and delivering environmental gains, a food impact assessment should be undertaken, and supportive mitigation measures considered. The NFU is concerned that the proposal for a phased approach to reducing abstraction may simply shift the burden and pressures of abstraction reduction onto agriculture and/or other sectors. The length of time required to implement solutions in the water sector is not afforded to the agriculture sector when licence changes are notified. There must be a collaborative approach to supporting the environmental destination that builds resilience and sustainability in all industries/sectors. Cambridge Water's WRMP includes a Strategic Resource option (SRO) Fens Reservoir to meet licence reductions resulting from environmental destination - "The Fens Reservoir will unlock many multi sector benefits for agriculture, habitat, amenity and recreation, and is an essential option to meet the future environmental needs identified in our plan". Whilst the NFU acknowledges that the expansion of strategic water supply infrastructure is a vital to improving long-term, multi-sector water management in response to these challenges, the NFU believes that all new public water supply infrastructure must be designed and built to deliver multi-sector benefits (specifically including the agriculture sector). As such, agriculture's water needs must be recognised as an explicit part of resource use plans to ensure access to water for food production, food security and elements associated with this, such as employment and economic value. In addition, the UK must acknowledge the global water scarcity challenge and the impacts of this on UK food security. When	We will ensure your comments regarding the Fens Reservoir are fed into our project team. Through our Fens Water Partnership, the NFU have an opportunity to ensure the views of your members are shared and incorporated into our planning.

agricultural/food producing land is being lost, agriculture must benefit either directly or indirectly. For example, this could be through direct access to water from new reservoirs or access to water through open water transfers. Water companies should be explicit in how Strategic Reservoir Options (SROs) can benefit water availability and this should be agreed in advance of construction to provide credibility and justification for the siting of the SROs. The potential availability of water for irrigation (either potable mains water or raw water) will help the agriculture sector where current abstraction licence constraints limit water availability, impacting on quality and yields of irrigated crops. Better consistency of supply and the future resilience of the agriculture sector are not only important factors in terms of future sector growth and sustainability, but also in achieving social and environmental outcomes. Further, the NFU believes that both the design and implementation during construction of any SRO must be carried out in a way that minimises impact on land ownership and agricultural operations. This will mean proper and open consultation with landowners and land managers during the development process of SROs. This protects the needs of landowners and land managers and ensures that they are actively involved in the decision-making process at all stages; and that decision making process is timely and transparent. To ensure the best outcome for everyone involved, the NFU asks that the following principles are applied to the design, development and construction of SROs. • Compulsory purchase powers to take land should be used as a last resort and voluntary agreements should be reached where possible • Developers should promptly pay enhanced compensation reflecting the dislocation, distress, income lost and loss of land as a result of a project • Habitat mitigation should be carried out to achieve 'no net loss' of biodiversity • Food production be mitigated to no net loss • Land take should be kept to a minimum and only the land needed for the scheme itself should be taken	

• Land should be taken on a temporary basis where possible and returned to agricultural use at the end of construction. • The developer should communicate and consult at an early stage with affected landowners and occupiers in regard to the proposed and final design of projects • Any necessary accommodation works should be incorporated within the design and implemented to minimise the impact on farm businesses • An aftercare programme for soils and field drainage should be planned, funded and implemented • An 'Agricultural Liaison Officer' should be engaged at an early stage from pre-construction works • The developer/contractor should show a duty of care at all times to claimants.	
Q5. Are there any areas you feel we should be considering which are not currently reflected in our plan? The NFU feels that a key element of the approach to the WRMP that is omitted is the multi-sector, collaborative work. If added, this would enhance the best value planning as options mentioned could involve the agriculture and horticulture sectors as landowners and land managers to realise and maximise potential opportunities such as those listed under the WINEP options. The WRMP states the best value planning approach looks to "assess all of our options against a range of metrics such as biodiversity, flood risk and flood risk mitigation, tourist, leisure and amenity value, and carbon cost (among others). By looking at this wide range of metrics, we can make sure we deliver a plan that delivers best value for our customers and the environment" Food production could be included as a best value measure alongside the indicators already reviewed. The NFU feels that agriculture's relationship with the water sector is critical to building our water resilience. There are significant opportunities to develop multi-sector benefits by working collaboratively on projects, particularly in locations where summer supplies and availability may be an issue. We must work together and with other organisations engaged at the catchment scale to reduce duplication of effort and improve the delivery on the ground. This will result in benefits and cost savings for farm businesses and for Cambridge Water.	A WRMP traditionally focuses on the public water supply needs, as per the planning guidelines. For this reason we now have Water Resources East in our region to ensure that we are truly planning for the whole water needs of our region, incorporating all sectors, and this regional plan is where this multi-sector work is captured. However, we are happy to work with the NFU to help deliver improvements in our catchments.

3.18 Natural England

Consultation Comment	Response
Natural England appears not to have received formal notification of the consultation on the Cambridge Water dWRMP, which commenced on the 24 February. We were made aware of the dWRMP consultation by the Environment Agency on 9 March 2023.	We apologise for this – it seems our Natural England contact details were out of date and we have now updated this to ensure all future updates and publications are sent to current and active email addresses.
Page 1 Para 4. Cambridge Water should be making strides toward ensuring that current and future water company activities are not at the detriment of protected species, priority habitats and designated sites. As well as ensuring that condition of these sensitive environmental receptors is not worsened, public bodies have a duty under the NERC act 2006, as strengthened by the Environment Act 2021 to "further the conservation and enhancement of biodiversity", including restoration and enhancing a species population or habitat. Natural England would like to see Cambridge Water develop a plan which delivers on the above, and provides a secure, sustainable water supply to customers.	Plans for meeting our duty under NERC are explained separately, through our WINEP measures and Biodiversity performance commitment. Where applicable for the delivery of options we would include BNG for any construction activity as required. We have included details of our WINEP in section 11.4 and 11.10 which we have expanded on for the revised draft WRMP.
Natural England considers Cambridge Water's dWRMP has insufficient information to determine impacts on designated sites, including Ouse Washes SAC/SPA/Ramsar and Fenland SAC. As submitted, the plan could have potential significant effects on Ouse Washes SAC/SPA/Ramsar and Fenland SAC. Natural England requires further information in order to determine the significance of these impacts and the scope for mitigation, if any. The information required is set out in Annex 1. Without this information, Natural England may need to object to the plan. Please include this information within the plan and reconsult Natural England before it is published.	These sites are not impacted by any of the options assessed as part of our WRMP, hence these are not included in our detailed assessments. For the Fens Reservoir, the EIA undertaken as part of this option development does assess these areas. As this option is being developed outside of the WRMP it is not included in our documents in detail, but this can be found in the supporting documentation for the RAPID submissions for the Fens Reservoir.
Notwithstanding the above, Natural England has serious concerns that Cambridge Water's abstractions, to meet current demand, appears to be contributing to the deterioration in the condition of multiple water-dependent Sites of Special Scientific Interest (SSSI) and important priority habitats such as chalk streams. Aligned with the Environment Agency's concerns, we are not confident that the company will be able to meet demand for water without risking further deterioration to these sites and	We are committed to the reduction of abstraction licences to protect priority habitats and WFD designations. All SSSIs in our area have been assessed through Habitats Regulations in previous WINEP cycles with the EA and NE input, and recommendations implemented following investigations into the impact of our abstractions. Our

supporting habitats, let alone achieve environmental improvement targets set out in the Government's Environmental Improvement Plan (published 31st January 2023) and Defra 25 Year Environment Plan. For these reasons Natural England is already objecting to planning applications for major development across Greater Cambridge.	WRMP proposes to cap licences to prevent deterioration in line with the legislative requirements including the targets in the Environment Act and the longer term Environmental Destination needs as outlines in the Environment Agency's National Framework for Water Resources. Our demand management measures proposed in the WRMP will ensure that demand does not increase through AMP8 and beyond until we have alternative more sustainable water sources in place. Details are included in section 1.7 as appropriate, and our WINEP is described in section 11.4 and 11.10 Our application of no deterioration and the licence capping resulting from this is described in section 3.3.2.
Where the Plan relies only upon the Environment Agency's minimum requirement of "Business as Usual plus" (BAU+), Water Companies must ensure that their WRMP includes a pathway to meet all their environmental assessment and nature recovery obligations in line with duties and timetables in Annex 2.	We have planned to BAU+ as per the guidance and as agreed across all companies in Water Resources East. We have included a pathway that looks at meeting the enhanced scenario is section 11.8 of the revised draft WRMP. Please note that the WINEP includes wider measures of improvement that are not included in a WRMP. Some of these are outlined in the WINPE sections of our plan.
The Environmental Destination as defined in the Regional Plan modelling that has been relied upon by Cambridge Water does not yet go far enough, fast enough nor it is yet prioritised in the correct locations to meet the nature recovery obligations set out in Annex 2. This is particularly important given the number of wetland SSSIs within South Cambridgeshire, which are mostly groundwater dependent. Natural England would like to work with WRE and Cambridge Water to refine and prioritise the Environmental Destination to meet the nature recovery obligations set out in Annex 2 in light of the struggling water-dependent habitats within the region.	The Environmental Destination (ED) figures used for the regional plan provides the best currently available determination of required abstraction reductions to be made by 2050, and this has been used in the WRMP and is consistent with other companies in the region. Our AMP8 WINEP includes further investigations into ED which will be used to refine the reductions required. We have also included measures in the WINEP to work with

We would like to remind Cambridge Water that although Environmental Destination has a final delivery date of 2050 there are other obligations that must be met before then (see Annex 2 for more information): a. Environment Act targets halt species decline by 2030 and increase species by >10% by 2042) b. The "30 by 30" commitment c. 25 Year Environment Plan target for 75% of SSSI to be in Favourable Condition by 2042 with mechanisms in place to achieve favourable condition by 2028	NE to monitor several wetlands of concern. We have included the relevant statutory targets from documents in Annex 2 within our WRMP Details are included in section 1.7 as appropriate, and WINEP is described in section 11.4 and 11.10.
Cambridge Water have included sustainability changes following WRMP19 and WINEP investigations. These are due to be implemented in AMP8 from 2025 and are based on "methodology of determining the no deterioration baseline for WFD." Whilst this is positive from a WFD perspective, and the water company have included these reductions in their baseline deployable output, it is not clear whether these reductions will deliver on obligations listed in Annex 2 regarding SSSIs (plus protected species and priority habitat). • There is potential for some reductions to result in protected site/ species and priority habitat improvements, though the primary aim will be to meet WFD no deterioration obligations. However, as investigations have not focused on SSSI/ habitat/ species requirements, it is not clear what the impact will be and whether changes will support improvement of these sensitive environmental features. Additionally, it is not clear whether the reductions proposed will meet timelines outlined in Annex 2, relating to species decline. • It is not clear whether the potential outcomes of PR24 investigations (e.g., requirement for further abstraction reductions) have been considered within the plan. In particular, from further investigations into retaining water levels on Alder Carr and Wilbraham Fen SSSIs. • Going forward, Natural England has additional concerns regarding SSSIs not yet contained within PR24 for investigation. We welcome the opportunity to engage with the water company on outstanding concerns and finding a way to resolve information gaps which are preventing the implementation of sustainability reductions.	We are committed to the reduction of abstraction licences to protect priority habitats and WFD designations. All SSSIs in our area have been assessed through Habitats Regulations in previous WINEP cycles with the EA and NE input, and recommendations implemented following investigations into the impact of our abstractions. Our WRMP proposes to cap licences to prevent deterioration in line with the legislative requirements including the targets in the Environment Act and other legislation. Our application of no deterioration, and the resulting licence caps, is described in section 3.3.2 of the plan. PR24 Investigations will be used to inform PR29 WINEP and if required our WRMP29. We have included the BAU+ level of proposed abstraction reductions in our draft WRMP and this is included in our data tables. This is a key driver for the Fens Reservoir for Cambridge Water. We have included the Alder Carr and Wilbraham Fen in these investigations. All SSSIs in our area have been assessed through Habitats Regulations in previous WINEP cycles however we will continue to work with NE and the EA to

	on concerns relating to our WRMP proposals and SSSI sites, including identification of abstraction reductions where applicable.
[On uncertainties in the HRA and SEA] Cambridge Water need to demonstrate at a plan level how they are going to comply with legislation in broad terms. This should include biodiversity net gain assessments. Impacts on SSSIs should be assessed against the monitoring specification and interest features of the site for any relevant impacts, consideration is also needed of the priority habitats the plan could affect and the species these habitats could support. For existing options that are going to supply growth a more tailored assessment of the specific existing concerns would be beneficial. For habitats regulations sites they must meet the relevant tests of the legislation. Conclusions should be backed up by the best available evidence and if there is still uncertainty, alternative options should be proposed.	Our plan complies with the required legislation as set out in section 1.9 and Appendices P. 10% BNG has been sought for all supply side options in the preferred plan. Our supply options have been assessed in accordance with the SEA methodology and screening approach. SSSI impacts are included in the assessment matrices where applicable. The SEA methodology was undertaken in accordance with the methodology developed at the Scoping Stage which included the statutory consultation process. This work is on existing supply arrangements is usually outside the remit of the SEA.
Critically, the uncertainty of transfer and demand options within the dWRMP impacts the ability for Cambridge Water to deliver the license reductions that are/ may be required to prevent further deterioration of the associated groundwater bodies and priority habitats that these support (such as chalk streams and wetlands). Where there is uncertainty in the deliverability of demand (and supply) options, alternative schemes should be considered.	We are confident in our ability to meet the required licence reductions to prevent deterioration and have committed to no increase in demand through demand management. Our proposals include uncertainty in delivery of the options, both demand and supply, and allowances are also made in headroom for uncertainty. In addition, we have included a new section in the revised draft WRMP, section 11.3, which outlines how we will deliver our demand management proposals, including monitoring, reporting and resolution of issues.
In relation to dealing with uncertainty in the plan, Cambridge Water have said it may be acceptable to include preferred programme options with residual uncertainties provided that (amongst other things) "the option is not required within the first five years of the plan period, so allowing time for additional investigations to be completed". Natural England's view is that water companies implementing an option before 2035 need to	10% BNG has been sought for all supply side options in the preferred plan. Our supply options have been assessed in accordance with the SEA methodology and screening approach,

have a plan level assessment that meets the tests before publication. Water companies need to demonstrate at a plan level how they are going to comply with legislation in broad terms, this should include biodiversity net gain assessments. SSSIs should be assessed against the monitoring specification and interest features of the site for any relevant impacts; consideration is also needed of the priority habitats the plan could affect and the species these habitats could support. For existing options that are going to supply growth a more tailored assessment of the specific existing concerns would be beneficial. For Habitats sites they must meet the relevant tests of the Habitats Regulations. Conclusions should be backed up by the best available evidence and if there is still uncertainty, alternative options should be proposed. Natural England would welcome discussion on this point, and work with Cambridge Water to agree a practical way forward where the aforementioned may not be possible, for example inclusion of a clear plan and commitment of what work will be done and when conclusions will be reached. It should be noted that the company should recognise the risk that this carries around the HRA outcome of the options concerned.	SSSI impacts are included in the assessment matrices where applicable. The SEA methodology was undertaken in accordance with the methodology developed at the Scoping Stage which included the statutory consultation process. This work is on existing supply arrangements is usually outside the remit of the SEA. We would welcome NE input into any alternative options that may be considered in future plans.
Where there have been material changes to existing licenses since the HRA was initially completed, the HRA should include consideration of existing consents.	There have been no material changes for the HRA to consider.
1.1.2.1 Options 01A and B In the appropriate assessment, Cambridge Water notes that there is uncertainty of the impacts during the operation of the borehole, due to a lack of understanding of the hydrological regime and also the interaction between the SAC feature and local surroundings (e.g., the passability of weirs). This uncertainty makes it difficult to conclude no Adverse Effect on Integrity (AEOI) at this stage: o With the first year of use being 2029-30, this must be addressed before the final plan is published. Natural England would welcome exploration of the impact of decreased freshwater input and exacerbation of nutrient issues from diffuse pollution already present within the river and stream habitats.	These options are no longer considered in our preferred plan from 2029-30. There would be further monitoring and assessment undertaken to develop the options to understand any impacts on the hydrological regime as options are developed in more detail. If the more developed option indicates any impacts on flows, then water quality dilution effects would be considered.
Natural England welcomes the consideration of using the same pipeline for supply options 01A, 01B, 73A, 75Aiii, 75Biii and 75Ciii, in addition to avoiding fish spawning season, to mitigate the heightened risks posed by construction for aforementioned options occurring concurrently. However, greater detail on what this means in practice in terms of “communication strategies” and also	These will be addressed in the updated HRA in Appendices P which will be published at the same time as the revised draft WRMP at the end of September 2023.

whether there are greater impacts from a combined pipeline would be welcome.	
1.1.3 Page 8 Para 2. It is not clear why the following Ouse Washes Ramsar features have not been included in the appropriate assessment, given the above pathways: o Extensive areas of seasonally-flooding washland o Nationally scarce plants	No pathways for these particular features were identified to be carried forward into Appropriate assessment This is explained in Section 6 HRA report.
1.1.3.1 Options 01A and B Due to the limited information regarding water abstraction requirement associated with options 01A and 01B, the hydrological impact of this and also the distribution of qualifying features (including functionally linked habitat) it is inappropriate to conclude no AEOI at this stage. This should be addressed before the final plan is published.	These options are no longer considered in our preferred plan before 2035. There would be further monitoring and assessment undertaken to develop the options to understand any impacts on the hydrological regime as options are developed in more detail.
1.1.3.2Option 73A Whilst positive that mitigation has been included to reduce the disturbance to SPA/ Ramsar features, Natural England recommend considering the ambient levels of noise on site and the increased noise above this caused by construction, rather than just considering the noise caused by Cambridge Water's activities in isolation.	Our environmental consultants will update to reflect proposed approach to noise assessment in the future project-level HRA. They will also incorporate information from the Gate 2 Informal Habitats Regulations Assessment where relevant.
1.1.3.3 The HRA in-combination assessment has not considered the cumulative effects of this plan, and existing supply options, on the River Cam / Ely Ouse system - which is integral to the functioning of Ouse Washes SPA/ Ramsar. This potential impact pathway is particularly important when looking at the Best Value Plan (BVP) as a whole, where there is reliance on existing abstractions to meet growth needs and the potential for this to increase if the demand management is not realised. An in-combination/ cumulative assessment should include consideration of the potential for abstraction to reduce flows in the River Cam / Ely Ouse system. Reduced flows at the point where the Ely Ouse discharges into the River Great Ouse around Denver Sluice, downstream of the Ouse Washes SPA/ Ramsar site, can increase silt deposition and build-up of sediments on the river bed. This causes the Hundred Foot River to back up, slowing the release of spring floodwaters from the Ouse Washes during the critical bird nesting season. We understand that the Environment Agency have been investigating this issue as their operation of Denver Sluice has a major influence on river levels in the Cam/Ely Ouse system, although we're unclear on any outcomes at this	The existing consents regime forms part of the baseline for use in the WRMP modelling. As stated in the methodology (Section 2.6.2) the assumption for the WRMP is that any licence amendments required by the EA's Review of Consents process or WFD have been factored into the supply-deficit calculations, and the EA will have confirmed that these are valid for the planning period when the WRMP modelling is undertaken. Therefore, the existing consents regime (taking into account any required sustainability reductions) is effectively a 'no adverse effect' baseline and that options that operate within the terms of existing licences will have 'no adverse effect'. No options have been flagged to Cambridge Water by the Environment Agency or Natural England. Previous

stage. This issue is likely to require consideration of the combined / cumulative effects of all ground and surface water abstractions across the entire catchment.	work was done for sources potentially affecting Breckland SPA but this work has been completed, and has no overlap with sites being considered in WRMP. Cambridge Water does not have any drought permits within its Drought Plan therefore no in-combination assessment required.
1.1.4.1 No LSE has been concluded at the screening stage on Fenland SAC. This is due to no new abstraction licence being required for the option and the abstraction of water being managed through the Hands-Off Flow arrangement. o The reasoning here does not resolve the potential impacts of the construction on the SAC feature (spined loach, Cobitis taenia). Moreover, other qualifying features which could be impacted have not been noted, e.g. Great Crested Newt. The SAC overlaps with Woodwalton Fen Ramsar, which is not mentioned as part of the screening. o Wicken Fen Ramsar - the assessment does not note the invertebrate assemblage. o Cambridge Water should consider whether the existing license's HRA is still appropriate. If there has been a material change since the completion of the license, this must be revisited.	Fenland SAC is c.15km to the north of the proposed boreholes and therefore wasn't included in the screening because no impact pathways over this distance were identified. The SACO for Fenland SAC also concludes that spined loach are unlikely to be present at Woodwalton Fen, therefore again no impact pathway identified. Wicken Fen Ramsar is similarly c.15km to the east, and therefore again no impact pathways identified. The potential for impacts to spined loach using offsite functionally linked habitat in the River Great Ouse will be revisited (although not specifically cited in the SACO for achieving Favourable Conservation Status).
1.1.4.2 Page 9 Para 3. It is not clear why the following Fenland SAC features have not been included in the appropriate assessment, given the above pathways: o Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) o Calcareous fens with Cladium mariscus and species of the Caricion davallianae o Great crested newt Triturus cristatus Due to uncertainties regarding the distribution and movements of the spined loach, it is inappropriate to conclude no AEOI at this stage. This should be addressed before the final plan is published.	The HRA Stage 1 Screening (Appendix C) identified Fenland SAC as being c.7.9km from the construction site, and on this basis, and lack of hydrological connectivity, concluded no LSEs on the GCN and habitat qualifying features. Spined loach were screened in, due to potential presence on the River Cam, and therefore taken forward to the Stage 2 Appropriate Assessment. Our environmental consultants, Ricardo, will approach Natural England to understand the pathways they consider affect all qualifying features so this can be resolved for the final plan.
1.1.5 Page 9 Para 4. Where there are Cambridge Water supply options which impact overlapping sites to the	We will incorporate information from the Fens Reservoir SRO Gate 2 Informal Habitats Regulations Assessment

scheme, the water company should include the construction and operation impacts of the reservoir. It is understood that there are likely significant impacts to Ouse Washes SAC, SPA and Ramsar as a result of in-combination effects between Cambridge Water supply options and preferred regional plan options. It is understood that no Appropriate Assessment work is available for options CAM7 or BCTTW125 in the draft WRE plan. An in-combination assessment must be included within the final plan. Cambridge Water should work with WRE to resolve this matter. Note, that without exploration into the impacts, it is inappropriate to conclude that "Construction Environmental Management Plans (CEMPs) can adequately address any in-combination effects".	where relevant. However, as per the in-combination methodology set out in Section 2.5, where the Fens Reservoir SRO is concluding an AEoI, this will potentially require this scheme to go through the derogations, and therefore would not be considered in-combination with Cambridge Water's supply options.
1.1.6 The potential for in-combination effects between Cambridge Water options 01A and 01B, and the Fens Reservoir SRO should be examined in Cambridge Water's WRMP, and not rely on this being conducted within the regional plan. Within dWRMP, it is expected that resilience to drought is considered during the planning period. At this stage, it is likely that drought permits/ orders are/ will be included in future drought plans. Therefore, Cambridge Water should be able to identify the drought permits/ orders planned to be relied upon and assess potential impacts in-combination with the dWRMP supply options.	We will incorporate information from the Fens Reservoir SRO Gate 2 Informal Habitats Regulations Assessment where relevant. However, as per the in-combination methodology set out in Section 2.5, where the Fens Reservoir SRO is concluding an AEoI, this will potentially require this scheme to go through the derogations, and therefore would not be considered in-combination with Cambridge Water's supply options. Cambridge Water does not have any drought permits within its Drought Plan therefore no in-combination assessment required.
1.1.7 Page 10 Para 3. No monitoring has been proposed for any of the supply options and associated impacts on Habitats Sites. It is essential that where mitigation is required, as identified within the Appropriate Assessment in the HRA, monitoring is included to determine whether the mitigation measures are successful and whether alternative measures need to be implemented. Moreover, where there are information gaps which have led to uncertainty in the Appropriate Assessments, Cambridge Water should consider what data they need to	The HRA is being undertaken at the strategic, plan-level, rather than project level where the requirements for monitoring programmes would be better understood. Where there is remaining uncertainty, around options we will identify a programme of works for the relevant options to address these data gaps.

collate and provide a timetable detailing when the uncertainties will be addressed. This is particularly important for supply options which will be used <2035	
Natural England's advice is that where there are known or suspected environmental impacts, the SEA should assess the Plan's reliance on existing abstractions to meet growth needs and the potential for this to increase if the demand management is not realised. The environmental implications of this overarching strategy, including potential for further deterioration in SSSI condition, needs to be assessed in detail through the SEA.	Our preferred plan does not propose any material increase to existing abstractions. Growth is managed through demand management. Existing licences are not considered as options and are therefore not assessed in the SEA for the plan.
The SEA includes inadequate consideration of the effects of the dWRMP on natural environment features including Habitats sites, SSSIs, priority habitats, species of principal importance and landscapes that are likely to be affected by the preferred options in the plan and those in the alternative pathway should the demand management measures not be realised at the rate relied upon in the Plan. Note that any impacts upon these high value receptors needs to also be correctly set as major adverse.	The SEA is undertaken at the strategic, plan-level, rather than project level where the requirements for monitoring programmes would be better understood. Where there is remaining uncertainty, around options we will identify a programme of works for the relevant options to address these data gaps. Only sites with a likely impact will have been assessed.
The environmental assessments of the options in the plan are brief and the report relies on scoping and screening tables. The scoping section should explain the potential effects for each preferred option.	Assessments are at strategic, plan-level, rather than project level suitable for comparison of the options and identification of impact. Where there is remaining uncertainty, around options we will identify a programme of works for the relevant options to address these data gaps.
The monitoring plan needs to be revisited to include monitoring of the Plan's reliance on existing abstractions to meet growth needs and the potential for this to increase if the demand management is not realised. The environmental implications of this key Plan policy, including potential for further deterioration in SSSI condition, requires careful monitoring.	Our supply options have been assessed in accordance with the SEA methodology and screening approach, SSSI impacts are included in the assessment matrices where applicable. The SEA methodology was undertaken in accordance with the methodology developed at the Scoping Stage which included the statutory consultation process. This work is on existing supply

	arrangements is usually outside the remit of the SEA. This assesses the impact from new options not existing abstractions supplying current needs.
The SEA needs to include in combination and cumulative impact assessment.	This will be included in the revised assessments in Appendices P that will be submitted alongside the revised draft WRMP at the end of September 2023.
Consideration needs to be given to the NERC duty (as strengthened by the Environment Act 2021) to further the conservation objectives in the SEA – this will include restoration and maintenance of SSSI condition and other important habitats including chalk streams.	10% BNG has been sought for all supply side options in the preferred plan. Our chalk stream restoration work forms part of our Water Industry National Environment Programme (WINEP). This is our programme of environmental improvement, where the WRMP focuses on water resource supply and demand. For the revised draft plan we have added more detail of our WINEP programme, and more specifically, our chalk stream river restoration programme and how it links into the National Chalk Stream Restoration Strategy. Our NERC commitments are included in our WINEP measures, which are detailed separate to WRMP. Details are included in section 1.7 as appropriate, and WINEP is described in section 11.4 and 11.10.
Timescales for improvements appear unlikely to meet the 2030 and 2042 targets for nature recovery habitats and species set out in the Government's Environmental Improvement Plan (published 31st January 2023), and those within the Environment Act 2021 (see Annex 2).	We propose to meet all of the Environment Act targets for water resources improvements. Other environmental targets would be included in the WINEP, where applicable, and agreed with the Environment Agency and Natural England. Details are included in section 1.7 as appropriate, and our WINEP is described in section 11.4 and 11.10.

Natural England is concerned that the Environmental Destination set out in the plan may not be sufficiently robust to ensure compliance with nature conservation obligations set out in Annex 2 of this letter. The company relies on the Regional Plan Environmental Destination within its plan to meet its environmental obligations; however, it must still satisfy itself that the company's environmental obligations set out in Annex 2 are met: • It should ensure that non-European SSSI rivers and wetland SSSIs and priority wetland habitats have been included in the Regional Plan Environmental Destination modelling. • Species and Environmental Improvement Plan (EIP) obligations should also be included within the Environmental Destination. • WRMPs must include a pathway to meet the Company's nature recovery obligations in line with duties and timetables in Annex 2. Natural England's advice is that Cambridge Water's dWRMP should be amended to clarify and demonstrate that it will meet these obligations.	The environment destination work looks at abstraction reductions required to provide protection to the watercourses and environment with regards to climate change. As all abstraction is currently from chalk aquifers, all abstraction reductions we will undertake under any of the scenarios, including BAU+, will directly benefit chalk streams and SSSIs. We will refine the ED figures following WINEP investigations in AMP8. The approach is set out by the EA but we would welcome NE input into the assessments. We have included more detail in sections 11.4 and 11.10 on WINEP and how we will meet our obligations.
1.2.2 Page 12 Para 2. The overarching strategy of the WRMP relies on the existing abstractions which are likely to increase within licence if the demand management measures are delayed or not deliverable. This poses a significant risk to the water-dependent sites that are already being potentially affected by the current level of abstraction. In the absence of more robust evidence to demonstrate the timely and effective delivery of demand management measures and details of alternative / contingency options we believe the dWRMP poses a significant risk to the availability of adequate supplies to meet future needs, without causing additional risk of harm to the designated sites that rely on the abstracted aquifer. This is a major concern for Natural England and we would expect to see an appropriate level of additional evidence to address these matters in the WRMP. Natural England's view is that the SEA is not sufficiently comprehensive and evidence based. The report is focused on assessing the effects of individual demand and supply options and has not considered the effects on SSSIs of the Plan's overarching reliance on existing abstractions to meet growth needs and the potential for this to increase if the demand management is not realised. The environmental implications of this key Plan strategy, including potential for	Demand Management measure that we have included in our plan are well researched and are phased accordingly so we are confident these will be met. There are also allowances made in the saving for uncertainty, along with headroom uncertainty for demand management options. We have included a new section in the revised draft WRMP, section 11.3, which outlines how we will deliver our demand management proposals, including monitoring and reporting. Our supply options have been assessed in accordance with the SEA methodology and screening approach, SSSI impacts are included in the assessment matrices where applicable. The SEA methodology was undertaken in accordance with the methodology developed at the Scoping Stage which included the statutory consultation

further deterioration in SSSI condition, needs to be assessed in detail through the SEA. We recommend that the SEA be amended to incorporate a dedicated section focused on assessing the effects of the dWRMP, including any likely changes in abstraction levels to meet planned growth, on groundwater dependent SSSIs. In addition to adhering to the EA capping programme timings for all sites, the SEA should include measures to restore and maintain SSSI condition. Long term alternatives to drought options for SSSIs should be included in the SEA. As stated previously, in our view the current drought plan is likely to lead to additional stress on SSSIs during the summer months and this will be exacerbated by climate change. We therefore do not have confidence in the current drought measures outlined. In our view, the improvements outlined are not sufficient to meet the 2030 and 2042 targets for habitats and species set out in the Environment Act 2021 and Government's Environmental Improvement Plan (published 31st January 2023) (see Annex 2). It is likely that the whole programme will need to be brought forward to achieve these targets. A detailed strategy should be prepared for monitoring the cumulative effects of the dWRMP measures, particularly abstractions, on water dependent SSSIs. The SEA will need to take a more cumulative approach than that outlined within the current report.	process. This work is on existing supply arrangements is usually outside the remit of the SEA. Our propose licenced reductions in agreement with the EA will ensure no deterioration. SSSIs have already been assessed through Habitats Regulation and any measure required implemented through previous WINEPs. We are separately undertaking modelling to determine if existing levels of abstraction would impact on flows and groundwater levels. We would be happy to share this with Natural England, but this is not subject to SEA for the WRMP. Drought options are considered in our published and approved drought plan. The drought measure sin our WRMP are demand related only, and have no negative impact on the environment/ Our preferred plan will deliver the required Env Act improvements at the fastest pace achievable, and likewise with the Environmental Destination requirements. The SEA methodology was undertaken in accordance with the methodology developed at the Scoping Stage which included the statutory consultation process. This work is on existing supply arrangements is usually outside the remit of the SEA.
1.2.3 Page 13 Para 3. It is not clear how the current dWRMP will provide supply to meet planned growth and restore and maintain favourable condition of water-dependent designated sites and supporting habitat including our chalk streams.	Our proposed licenced reductions in agreement with the EA will ensure no deterioration. SSSIs have already been assessed through Habitats Regulation and any measure required implemented through previous WINEPs.

	Our preferred plan does not propose any material increase to existing abstractions as all future growth is offset through demand management. Our WINEP proposes measures to improve chalk streams and investigate the impact of our activities on other water dependant sites and is described in section 11.4 and 11.10.
1.2.4 Natural England's advice is that the plan should provide more robust evidence that a sustainable supply can be delivered to meet planned growth needs without further deterioration in condition of SSSIs and other important habitats. Reliance on demand management and drought measures to prevent increases in abstraction and further environmental deterioration, until new strategic supply options are available, is a concern to Natural England, for example it is not clear how drought measures will be used to manage demand. The uncertainties and time delays around full implementation of demand management measures poses significant risks given the urgency of the situation with SSSIs already being potentially impacted. Natural England's advice is that the plan needs to provide more robust evidence to demonstrate that demand management measures will work. The plan should also include deliverable alternative options to address timescales and uncertainties of delivery of the preferred options. It should clarify that risks associated with climate change and the increased frequency of prolonged drought are embedded in the Plan. A robust strategy to monitor the efficacy of demand management and emergency measures should also be provided. In Box 1 of the Biodiversity Net Gain and Natural Capital Assessment, WRPG 2022 Section 4.1.1 highlights the need to consider the duty to conserve biodiversity under section 40 of the Natural Environment and Rural Communities (NERC) Act (2006). This position has been strengthened through the Environment Act 2021 which advocates the conservation and enhancement of biodiversity. The additional level of commitment required by this enhanced duty needs to be reflected in the WRMP. Cambridge Water addresses issues of diminishing water availability, increased demand and associated	Demand Management measures that we have included in our plan are well researched and are phased accordingly so we are confident these will be met. There are also allowances made in the saving for uncertainty, along with headroom uncertainty for demand management options. In addition, we have included a new section in the revised draft WRMP, section 11.3, which outlines how we will deliver our demand management proposals, including monitoring and reporting. Our data tables represent a 1 in 500 year drought event and therefore outline how we will ensure security of supply in this extreme situation. As a result, our plan incorporates the risk of climate change and prolonged drought. We also test our preferred plan against different scenarios which are aligned to Ofwat's common reference scenarios. One of these looks at the impact on the plan should our demand management activity only be 50% effective. These scenarios, the impacts and the adaptive pathways required as a result are covered in section 11.7 of the revised draft WRMP. 10% BNG has been sought for all supply side options in the preferred plan. Our WINEP proposes measures to improve chalk streams and investigate the impact of our activities on other water

environmental impacts by seeking to ensure adequate supply. Natural England would welcome further steps to actively enhance biodiversity by engaging with nature recovery and supporting the growth of a thriving natural environment. Natural England also has significant concerns that Cambridge Water's proposals for ensuring continued water availability may be insufficient, certainly in the lifecycle of the current plan, and would like to see contingency planning for protecting the environment should the measures they set out in the WRMP fail to deliver.	dependant sites and is described in section 11.4 and 11.10. We test our plan against various scenarios, as outlined in section 11.7. For the revised draft plan, we have included more detail on these scenarios, the impact they have on the plan and the resulting actions we would take (our adaptive pathways) should these come to pass, including trigger points for monitoring and additional work required to enable these.
1.2.5 Page 14 Para 1. Our understanding is that proposed drought measures set out in the draft Drought Plan (DP) 2021 were not subject to SEA (see section 1.4.2 of this letter for further comments). We advised that these measures, particularly permits and orders, should have been assessed in combination with the draft WRMP. Natural England's response to the dDP (2 August 2021, ref. 360534) If Cambridge Water is planning on relying on these options, these potential effects require consideration through the dWRMP SEA and any required mitigation measures should be identified.	We have responded to NE comments on the requirement for SEA on the drought plan and that as we have no drought permits other than ordinary drought orders in the plan, SEA is not required. Proposed drought measures that link to the dWRMP are only demand management measures. Extreme drought measures are explored, but not included in the Drought Plan, as per the guidance. Our WRMP shows how we will become resilient to 1:500 drought.
1.2.6 Page 14 Para 2. The SEA is fundamentally flawed in omitting any assessment of the plans overarching strategy and the effects of current and future groundwater abstractions on SSSIs and other important habitats including chalk streams (particularly in light of planned growth and uncertainties around delivery of the demand management and supply measures) and the identification of measures to restore, maintain and enhance the condition of these habitats – and a robust monitoring programme to ensure this happens. The importance of our SSSIs and priority habitats such as chalk streams, and the risks to their integrity and condition	Demand Management measures that we have included in our plan are well researched and are phased accordingly so we are confident these will be met. There are also allowances made in the saving for uncertainty, along with headroom uncertainty for demand management options. In addition, we have included a new section in the revised draft WRMP, section 11.3, which outlines how we will deliver our demand management proposals, including monitoring and reporting.

associated with groundwater abstraction, is acknowledged in Appendix D Baseline Analysis. The SEA needs to consider these risks in relation to the WRMP over-arching strategy and progress a detailed assessment of its effects on SSSIs, chalk streams, other priority habitats and dependent species. Measures to mitigate adverse impacts should be identified alongside actions to restore habitats and recover nature e.g., through appropriate contribution towards schemes being delivered by key partners including Natural England, Environment Agency, the Wildlife Trust, LPAs and others. Page 14 Para 4. The lack of an alternative or adaptive plan remains a serious concern for Natural England for all the reasons stated in the above paragraph. Based on this we have limited confidence in the generally positive conclusions of the SEA with regard to sustainable water supplies and biodiversity. Appendix C Review of Plans and Programmes includes an extensive list of relevant plans and programmes, detailing their key objectives and targets to protect and enhance the natural environment - and their influence on the WRMP and SEA objectives. However, there are no clear and specific actions referenced in the SEA, and embedded within the WRMP, that will actually contribute to any of these targets. For example, with regard to Defra's 25 Year Environment Plan 'Recovering Nature' targets, the SEA simply indicates that 'the SEA should ensure that the impacts of any WRMP options on the 25-year goals set out in the Environment Plan are fully considered, whilst taking into account environmental net gain and natural capital approach, which the government have identified as principal themes'. This is a vague action that is unlikely to contribute significantly towards nature recovery and other environmental targets. The Environment Act 2021 is referenced in Appendix C as 'set up the EA to manage resources and protect the environment in England and Wales….', incorrectly referring to the Environment Act 1995. The objectives and targets of the more recent Environment Act 2021 and Government's Environmental Improvement Plan should be included in Appendix C and specific actions set within the WRMP to contribute towards these.	Our supply options have been assessed in accordance with the SEA methodology and screening approach, SSSI impacts are included in the assessment matrices where applicable. The SEA methodology was undertaken in accordance with the methodology developed at the Scoping Stage which included the statutory consultation process. This work is on existing supply arrangements is usually outside the remit of the SEA. In the revised draft WRMP, sections 11.7 an 11.8 detail the work we have done to test our plan against various potential scenarios, aligned to Ofwat's common reference scenarios, the impacts these would have on the plan and the adaptive pathways we would need to take if these came to pass. In addition, section 118 addresses adaptive planning that looks at elements such as environmental destination. Our chalk stream restoration work forms part of our Water Industry National Environment Programme (WINEP). This is our programme of environmental improvement, where the WRMP focuses on water resource supply and demand. For the revised draft plan we have added more detail of our WINEP programme, and more specifically, our chalk stream river restoration programme. Our propose licenced reductions in agreement with the EA will also ensure no deterioration. SSSIs have already been assessed through Habitat s Regulation and any measure required implemented through previous WINEPs

	We are separately undertaking modelling to determine if existing levels of abstraction would impact on flows and groundwater levels. We would be happy to share this with NE, but this is not subject to SEA for the WRMP Our preferred plan will deliver the required Env Act water resources targets. BNG has been considered for WRMP options, and our WINEP programme, separate from the WREMP will significantly contribute to other improvement goals. We have expanded on the detail of this in section 1.7 as appropriate, and WINEP is described in section 11.4 and 11.10 This reference to Environment Acts will be revised in the updated Appendices.
Comments on WFD are a matter for the Environment Agency however Natural England notes: • This should include the risk of deterioration of groundwater dependant terrestrial ecosystems (GWDTE) that are also SSSIs or priority habitats or species from increased abstraction within existing licences to supply growth or from new schemes. Natural England's view is that failure of or increasing an existing failure of monitoring specifications (formerly called FCTs) for groundwater dependent SSSIs related to abstraction induced drying even if this is in combination with climatic drying would constitute a deterioration.	We do not propose to increase abstraction above historic levels and our demand management programme will offset the forecasted increase in demand due to growth. SSSIs will have been screened and assessed for our options in the Env Assessment.
1.4.1 Page 15 Para 4. Natural England is concerned that the Environmental Destination set out or relied upon in Water Cambridge Water's dWRMP is not sufficiently robust to ensure compliance with all Water Company environmental obligations, as set out in Annex 2. Where a Water Company is relying on the Environmental Destination of the relevant Regional Plan it must still satisfy itself that these environmental obligations are met (see also sections 1.1 and 1.2 above). In Natural England's view the Environmental Destination in the Water Resources East Regional Plan is not sufficient to achieve this, and, as stated above, Cambridge Water's dWRMP as currently written must be amended accordingly.	Our draft WRMP outlines the licence caps that we will apply to our sources. These licence caps have been determined by the Environment Agency. Similarly, environmental destination has been identified from the Environment Agency's National Framework for Water Resources. They have shared the basis of their calculations for this and we have used

Within Water Resources East's draft regional plan (published November 2022): Table 1.1 of the Biodiversity Net Gain and Natural Capital Assessment document shows 4 supply options in the BVP, and this does not include: • River Cam abstraction and treatment work • Fens Reservoir internal potable water transfer Chatteris Looking to the main document diagrams, it is not clear whether the River Cam abstraction has been included in the regional plan. Cambridge Water should clarify this.	these numbers in our plan for the future abstractions reductions we will deliver. We will clarify the true scale of these reductions and the exact sources these are required as through our investigations between 2025 and 2030 and this will be included in our WRMP29. We have developed our plan through collaboration with the Environment Agency and so are confident these abstraction reductions are aligned with their requirements. We have reviewed the enhanced destination scenario and cover this in our adaptive planning section in chapter 11.8 of the revised draft WRMP. The Cam abstraction is included in the regional plan as a re-use option as it relies on the WWTW discharge flows to support the HOFS that allow for abstraction. This option is no longer selected early in our preferred plan.
1.4.2 There are supply options which may pose a risk to the environment, specifically those which seek to continue use of damaging abstractions or use previously decommissioned sources. Though these sources have been previously licensed, the context in which they are planned to be used has changed (i.e., we are now aware of the pressures on chalk aquifers and habitats which they support). These options include: o Options 01A and 01B (recommissioning of Fenstanton borehole) o Regulation 19 exemption – it is understood that Cambridge Water have decided not to take the route of Regulation 19 exemptions in this instance though have not ruled out from utilising Regulation 19 inside the planning period. Page 16 Bullet 2. Natural England would welcome comment on the certainty of this and similar transfers. Additionally, Natural England question the location of environmental	All supply options have been assessed for environmental impact and this will be further re-enforced as they are developed in further detail. Options 01A and 01B are no longer selected in our preferred plan in the next 10 years allowing for full assessment of the impact they may have on the environment. In our revised draft WRMP we outline that we will now be applying for a short Regulation 19 exemption in 2030 that covers some of the licences that are to be capped. This exemption would be required until 2032 when the proposed Grafham Transfer is available for use and enables the remaining licence caps to be made.

assessment of sources, being all plans are currently at draft stage. Page 16 Bullet 3. Whilst Cambridge Water are unable to rely upon permits/ orders, there are options included within Drought Plan 2022 as actions during extreme drought and these include temporary removal of licence conditions. Clarity on the above statement would be welcomed. o Natural England has remaining concerns about the drought plan, relating mainly to the SEA process. This is particularly important considering the impacts which drought permits/ orders may have. Again, accepting these are not sources which Cambridge Water wish to use, until new sources are made available and/or demand is reduced, in periods of extreme drought Cambridge Water may rely on these sources.	There are 2 transfers proposed in our revised dWRMP, one from Graffham at up to 26Ml/d and the Fens reservoir transfer at up to 44Ml/d. These options have been discussed in detail with the donor company Anglian Water and/or been developed through the RAPID process and so we are confident on certainty of availability, and of delivery as proposed. Drought options are considered in our published and approved drought plan. The drought measures in our WRMP are demand related only and have no negative impact on the environment. Extreme drought measures are explored, but not included in the drought plan, as per the guidance. Our WRMP shows how we will become resilient to 1:500 drought. We have previously responded to NE comments on the requirement for SEA on the drought plan and that as we have no drought permits other than ordinary drought orders in the plan, SEA is not required. Proposed drought measures that link to the dWRMP are demand management measures.
1.4.3 Given the concerns on water supply outlined above, Natural England would like to see more emphasis on natural capital in the draft WRMP. It should also focus on measures to address resilience across the suite of SSSIs within Cambridge and meet Environment Act 2021 requirements around catchment and nature-based solutions. Natural England would welcome an opportunity to discuss incorporating local nature recovery policy and on ensuring sufficient net gain is included within proposals. In particular, we would like to discuss this in relation to the Fens Reservoir application and associated infrastructure (although appreciating that this application is being led by Anglian Water).	Natural capital has been assessed for the options proposed in our WRMP, according to the requirements of the guidance. Separately to the WRMP our WINEP proposals include investigations and implementation measures that will address SSSI resilience and other non-water resources related Environment Act targets. We would be happy to discuss these again with NE. We work with many stakeholders and have existing and future proposals for catchment-based solutions and working towards nature recovery as appropriate. We include some details

	on this in section 1.7 of the revised draft WRMP. Net gain is core to the Fens proposals, and the Fens Partnership explores these.
1.4.3.1 Local Natura Recovery Strategy The Environment Act 2021 introduced a number of policies designed to achieve coordinated, practical and focused action to recover nature. Water companies need to undertake such actions to meet these statutory obligations, and non-statutory requirements, whilst maximising wider environmental benefits. This includes opportunities to improve the landscape, heritage, access and recreation outcomes linked to their duties under the Water Industry Act 1991. As a supporting authority for the LNRS in Cambridgeshire, Natural England is looking forward to collaborating with Cambridge Water. Their influence is likely to be of great significance in the county given development pressure, agricultural pressure and water scarcity. We would welcome a commitment in the WRMP to align with and uphold the incoming recommendations of the LNRS to deliver for people and nature.	Cambridge Water is committed to aligning our activities with the incoming recommendations of the LNRS to deliver for people and nature, and these opportunities are assessed over existing and new operations as and when is appropriate. Our WINEP for example is explained in section 11.4 and 11.10 of the revised draft WRMP. These commitments are made within our wider long term strategies for the environment and we are committed to collaborating with all parties to help achieve the outputs of the LNRS.
1.4.3.2 We note that all options within the preferred programme demonstrate that 10% BNG can be reached if required. We would strongly encourage an uplift on 10% BNG to be sought wherever possible, in line with Water Resources Planning Guidance (section 9.4.4) which states that "you should consider going beyond what might be required by the Environment Act 2021 to provide an ambitious level of measurable biodiversity net gain" https://www.gov.uk/government/publications/water-resources-planning-guideline/water-resources-planning-guideline The report indicates potential impacts to higher distinctiveness habitats. We reiterate the need for proper application of the Mitigation Hierarchy5 when considering such proposals, as well as the need to take account of the emerging guidance/regulations around Irreplaceable Habitats (e.g., requirements for bespoke compensation). Natural England wishes to be consulted on any plans resulting in impacts on these habitats.	10% BNG has been sought for all supply side options in the preferred plan. We are currently reviewing all opportunities for the Fens Reservoir to maximise BNG as well as wider environmental benefits. The Potential biodiversity opportunity (PBO) area tool output helps to support and inform priority opportunities within LNRS. LNRS are also taken account of through use of the PBO tool.

1.4.3.3 Page 18 Para 1. This nature-based solution to water quality issues is welcomed by Natural England and would urge the water company to consider the wider benefits of this approach to supply that it could bring.	We assess our catchment programme using a natural capital-based approach to recognise the wider benefits beyond water quality.
1.4.4 Page 18 Para 2. Whilst positive that the water company are planning to meet reductions in demand to achieve 110 litres pp/day by 2050, it would be beneficial to seek significant demand management measures beyond this, if possible, to remove these impacts and allow nature to recover as soon as possible, and not just wait until new supplies come on-line. The demand management interventions should be timetabled from as early as possible in the plan to meet the objectives, policies and timetables for nature recovery set out in Annex 2.	The WRPG require us to plan to the local plan consumption for new dwellings, currently 110 l/h/d, and we are achieving the Env Act and PIC targets as required with an optimised programme of best value demand management measures. In addition to this we propose measures in our WRMP to encourage further water efficiency at significant developments in our area, alongside offering an incentive to developers that can construct and demonstrate dwelling that can meet higher efficiency targets that required in planning. As part of our plan optimisation, we did look at achieving 90 l/h/d; however we found there is no current pathway to achieving this, and hence we have retained the target of 110 l/h/d. We are committed to exploring innovation in this area however; we have been successful in our lead bit with the Ofwat innovation fund relating to understanding the relationship with water in different faith communities. We will continue to explore additional opportunities in this way. We are also working closely with Defra, the Environment Agency and the Department for Housing and Levelling Up and Communities to influence building standards and exploring retrofitting non-household properties with more greywater and rainwater reuse systems to help reduce consumption.

3.19 Ofwat

Consultation Comment	Response
The company's final WRMP should also reference the target to reduce distribution input by 20% by 2037-38 and demonstrate how it plans to deliver this through a combination of reductions in the key demand components, leakage, household consumption and non-household consumption.	We have included reference to this in our revised draft WRMP in section 1.7.8 as well as throughout section 11 which outlines our preferred plan.
As we outlined in November 2021, we expect near-term interventions being identified in WRMPs to deliver long-term targets such as a 50% leakage reduction and 110l/h/d PCC to be set in the context of the optimum long-term strategy. Setting a glidepath to meet long-term targets and outcomes should enable an efficient and deliverable long-term programme to be identified. The company's plan only considers linear leakage reduction profiles, with the 50% leakage reduction by 2049-50 profile selected as the preferred option. The company has not considered alternative investment profiles such as one that considers non-linear reductions. The company should provide sufficient and convincing evidence to justify why a linear profile – rather than doing more or less in the near term – is optimal from a timing of investment perspective.	For the revised draft WRMP we have updated our demand forecast, and as a result we have updated our leakage profile. We have in section 11.1.1 more detail regarding the different scenarios we explored for leakage, and why we have selected the profile that we have. Since producing the draft WRMP, the Environment Act targets have now been released including interim targets, which specifically apply to the leakage reduction. These targets deliver a linear reduction profile, and if we are to meet these targets, there is little opportunity to flex our profile except to accelerate it. We discuss this in section 11.1.1 and why we have chosen to maintain a linear profile in line with achieving the interim targets.
The company has looked at a limited range of demand management options and provides insufficient evidence for how it optimised its demand management strategies. We expect the company to explain and provide sufficient and convincing evidence for how the strategies were devised and how the preferred strategy represents the best value approach to meet a supply-demand balance.	In our draft WRMP we did not detail all of the demand management options we assessed in detail. For the revised draft WRMP we have updated section 9.5.6 to include the detail of all of the demand management options we assessed.
We are concerned that, based on the draft WRMP data tables, the company does not forecast to deliver its PR19 performance commitment level for PCC by 2024-25. We expect the company to deliver its PR19 and WRMP19 targets. Companies should not expect additional customer funding to address deficits resulting from under delivery in the current or previous periods. We expect the company to review its proposals in these areas for its final WRMP. Leakage	We have created a new section in plan – section 6.10. Here we detail any changes between the end point of WRMP19 and the starting point of PR24 and the reasons for this. We have also created a new section 2.2 which provides details on our commitments at WRMP19 for AMP7 and how we have performed against these, and therefore any related assumptions

	that have gone into the WRMP24 as a result. This includes both supply side and demand side activities. For PCC and leakage, we have assumed we will achieve our end of AMP7 target for both areas and therefore our WRMP24 starts at these levels. We have updated our PCC forecast levels to ensure it corresponds to the end of AMP7 target absolute position – 124 l/h/d. Our plan therefore starts at this end delivery position. We are still seeing the impact of Covid on our PCC level and have ambitious plans in place to ensure we reduce our PCC to the target level so that our plan from 2025 starts in this place.
We welcome that Cambridge Water has set out it plans to reduce leakage by 50% from 201718 levels by 2050 and that its proposed rate of reduction of 13.1% across the 2025-30 period is comparable with its 2020-25 ambition. However, although the company tests two scenarios, both aim to achieve the same target reduction of 50% and the company does not test achieving other targets, nor it is clear how the testing has influenced the selected target presented in the draft plan.	We have included information regarding the different scenarios we reviewed for the leakage profiles in section 11.1.1 of the revised draft plan.
The company chooses proactive trunk mains renewals with a high unit cost to achieve leakage reductions in the near term (including for 2025-30). This is partially the result of the company assuming that some lower cost options require the smart metering rollout to be fully completed before they can start. This results in a high leakage reduction enhancement expenditure unit cost of 13.8 £m/Ml/d for the 2025-30 period. We expect the company to review its leakage reduction proposals and provide sufficient and convincing evidence it is presenting a best value solution based on efficient activity costs and optimum activity scheduling.	We have reviewed our leakage profiles and activities as part of the revised draft WRMP. We detail the outputs of this, and the cost impacts, in section 11.1.1. Trunk main leakage here is high cost due to the assumptions in the development. We discuss this specific element in the same section of the plan. Our costing was based on some work undertaken at the end of AMP6 in our Cambridge Water region. Here we undertook a trunk main renewal programme on the A505 due to leakage volumes and frequency, which in turn delivered 0.5 Ml/d of benefit. Our trunk main approach for this WRMP was to identify similar opportunities and replicate this. Hence the higher cost due to long lengths of trunk main replacement.

	We have been reviewing this process over the last 18 months and now found there are no other trunk main large scale renewal projects that we can identify in our area. We have also used new technology in AMP7, such as satellites, which has enabled us to better pinpoint leakage and undertake localised repairs. As such, our preferred plan does not include the specific trunk main option identified (2021-001) and instead we continue to use our active leakage control (ALC) approach for trunk mains as well as regular mains and comm pipes. Therefore, trunk main leakage detection and repair is now incorporated into this activity.
Cambridge Water appears to have assessed the customer supply pipe repair or replacement (with and without smart networks) options but has not discussed its policy with regards to customer supply pipe leakage. We are encouraging companies to evaluate the benefits of a common industry approach to addressing leakage on customers own pipes. We expect companies to provide a view on the benefits of a common industry approach in their statements of response and final WRMPs. We will support companies in the development of a common approach but expect the industry to lead on the development. The Water UK leakage routemap to 2050 committed to an informed debate on customer supply pipe strategy by December 2022.	We have included details on our policy, and the benefits of an industry wide approach, in section 11.1.1.
Cambridge Water has set out its plans to meet the per capita consumption (PCC) target of 110 l/h/d by 2050. However, the company proposes a three-year average PCC increase of 5.2% across the 2025-30 period which shows lack of ambition when compared to the 2020-25 period. We expect the company to justify its chosen glidepath for 2025-30 in comparison to 2020-25 in its final WRMP	In our draft WRMP data tables, our PCC projections showed an uplift due to the Covid impact we have witnessed on household consumption. However, that is an increase on our targeted end of AMP7 position as per our PR19 performance commitments. We updated our demand forecast for the revised draft WRMP and the updated tables accompanying it now show us ending AMP7 (and starting AMP8) are our targeted position of 124 l/p/d. We have then updated our PCC profiles throughout the planning period and we see a reduction across AMP8 as planned.

	However it should be noted that the data tables represent a dry year scenario, whereas our PCC target is averaged over a 3 year period in order to provide a normal year number. We have included the normal year target of 124 l/p/d in table 2 which looks at NYAA, and then an uplift has been applied (8.7% for measured customers and1.3% for unmeasured) for the dry weather factor in table 3. This is why the starting position for PCC may still seem higher than our AMP7 target position. However, our plan shows us achieving 110 l/p/d in a dry year scenario by 2050. We detail the activities we intend to carry out to achieve this in section 11.1.3 of the revised draft WRMP.
We are concerned that in the draft WRMP data tables the company does not forecast to reduce non-household demand and, across both its operating areas, forecasts a 9.4% increase by 2029-30 based on its draft WRMP. We expect the company to set out and clearly justify an ambitious strategy for non-household demand reduction in its final WRMP. We also expect the company to explain how its non-household consumption trend has impacted the optimisation and best value option selection in its preferred plan.	For our revised draft WRMP we have updated our demand forecasts by working with local planning authorities and collating employment projections. For NHH this has led to an increase in the demand forecasted – by 2038 NHH demand will have increased 55% from the 19/20 baseline level. In order to deliver a 9% reduction, all of this new NHH growth would have to be water neutral as well as reducing consumption across existing properties. Our work has shown this is not possible. As such, we are proposing to deliver a 9% reduction from the 2038 forecasted position and a 15% reduction from the 2050 forecasted position. In our revised draft WRMP we have further emphasised the importance of collaborative working and are supportive of the proposal to create a RAPID style approach for demand management, titled ARID. We believe that a national approach is required to ensure effective and efficient delivery of the NHH target to ensure clear communication and standardised approaches for retailers and our NHH customers.

	We are working closely with Greater Cambridge Planning, the Environment Agency and Defra to ensure that the growth in the Cambridge region is sustainable. We are working with the new Water Scarcity Working Group that has been convened by the Department for Levelling Up, Housing and Communities, the Environment Agency, Ofwat, central and local government and innovators across industries to accelerate plans to address water scarcity in the area. As part of this work we are exploring the role all sectors must play in ensuring the development is sustainable and the options and opportunities we can explore to achieve this. This proposal it outlined here Long-term plan for housing - GOV.UK (www.gov.uk)
The company considers the implementation of smart networks (including household smart metering) to be a key enabler in delivering the demand reduction options proposed in its draft WRMP. However, the company assumes that smart metering on its own does not deliver any demand reductions but facilitates demand reduction across households, non-households and leakage. There is no explanation for why the company uses this approach to allocating benefits between demand side activities. It also assumes that all meters need to be installed before options that rely on the data from them can be implemented. The company should explain this assumption as this could delay more cost-effective ways of reducing demand in the near term.	Following this feedback, and similar from the Environment Agency, we have engaged with other companies who have an extensive smart metering rollout programme in AMP7 and detailed information on the benefits that can be recognised from the installation of smart meters. We have updated our assumption so that installing a smart meter into a previous unmetered property now saves 13% per person per day. We discuss this in more detail in section 11.1.2.
Cambridge Water selects a universal smart metering programme, using advanced metering infrastructure (AMI) technology, delivered to reach full meter penetration by 2035. The company should provide sufficient and convincing evidence that this rate of metering is optimal and achievable over the long-term. The company states it aims to use AMI meters wherever possible as the cost difference between AMI and automated meter reading (AMR) meters is minimal. As described in the PR24 final methodology the company's decision to install AMI meters over AMR meters should include compelling evidence that justifies why this represents the best value approach to meeting a supply-	As part of our demand management optimisation, we assessed several options for universal metering – achieving this by the end of AMP8, by the end of AMP9, or not undertaking it at all. Our optimisation showed that it is not possible to hit the Environment Act targets without this in place. As part of our optimisation, we have assessed delivering the universal metering programme by 2030. However, there are several reasons that we do not believe this is a viable option:

demand balance or delivering long-term strategic outcomes. The company also needs to provide sufficient and convincing evidence that the unit costs of its AMI meter installations are efficient.	• We have developed our plan with our supply chain to ensure that it is deliverable – accelerating the proposed programme would create supply chain issues with resources to deliver and meter availability. • All companies have ambitious metering programmes. This is putting a strain on meter stock, which is exacerbated by current world affairs. • Several companies have undertaken large scale metering programmes between 2020 and 2025 and found delivery challenging – we have liaised with these companies to understand the lessons learned and ensure we build a plan that reflects these. In Cambridge we already have a higher level of metering penetration than the industry average at 74%, and we acknowledge that 100% will not be fully achievable due to shared supplies and other complexities, but believe our plan is ambitious and deliverable. For the revised draft WRMP we have added clarity to our AMR/AMI metering approach, detailed in section 11.1.2. Our plan assumes these smart meters will all be AMR in AMP8 – however these AMR meters have AMI capability and can be switched to AMI easily once the associated infrastructure is in place. This is our approach because the infrastructure in our area of operation is not currently in place to support AMI meters readily, and therefore the increased costs for installing this means the costs outweigh the benefits. We do expect this to change over the lifetime of our plan, and therefore are proposing to install AMR meters that are easily, and cheaply, converted to AMI meters. We expect this shift to occur during AMP9 and beyond, and this is reflected in the split of meter installs

	we're proposing from then, with an assumption of 50% of each from AMP9.
We expect the company to provide sufficient and convincing evidence in its final WRMP to justify why its selected targets for demand reduction (leakage, PCC and business demand) represent the best value approach to meeting a supply-demand balance or delivering longterm strategic outcomes. This should include evidence of target testing and a clear explanation of the company's decision-making process.	The Water Resource Planning Guidelines were updated in March 2023 by the Environment Agency and these state that all plans should achieve the Environment Act targets, including all interim targets. As a result, this offers little scope and flexibility around the profiling of demand management activity, part from the accelerate the programme. This is the approach we have taken for leakage in the revised draft WRMP where we have proposed to meet the 50% reduction target by 2040 which is 10 years earlier than the target date of 2050. This is following consultation feedback from stakeholders and direct customer feedback through our development of our PR24 business plan that we should go further faster. We are obviously conscious of the water resource challenges in the Cambridge Water region and the benefit that accelerating this programme can provide, hence our decision to do so. We cover this, and the chose trajectories of our other demand management options, in section 11.1 of the revised draft WRMP.
As stated in our PR24 final methodology, we expect consistency between final WRMPs, company long-term delivery strategies and business plans at PR24. Any areas of variance between final (and published) planning frameworks and business plan submissions need to be fully explained, supported by compelling evidence. This should also include the reasons for changes and include confirmation that customers and the environment are not or will not be worse off.	We can confirm that our PR24 and LTDS directly reflect the revised draft WRMP.
Cambridge Water has used a 25-year planning horizon and some rationale is provided. Whilst the company has met the statutory requirement to forecast supply and demand over at least 25 years, the planning period should be appropriate to the risks the company faces. Given the challenges and risks the company has identified, it may be more appropriate for Cambridge Water to plan for the next 50 years. This is to ensure the	Our WRMP data tables cover the period from 2025 to 2100 and show the future forecasts past this point. However demand forecast data past 2050 is merely an extrapolation of existing growth and is not based on any robust projections. Similarly, any environmental needs past 2050 are not yet identified. In addition, we make no further assumptions about demand

WRMP identifies the right solutions to meet future pressures.	management past this point due to uncertainty around need, costs and delivery. This means that any plan past 2050 is likely to be very uncertain and based on significant assumptions, and therefore does not add significant value to the process. The data tables do show these elements and where potential future issues may occur, but we believe there is little value to be added at this stage in developing options to resolve potential deficits that are highly uncertain post 2050.
The company's supply demand balance starting point for the draft WRMP24 is significantly lower than its forecast for the same point in the final WRMP19. The reduction in available water for 2025-26 is equivalent to 14% of company water demand (distribution input). Although some of the changes are due to supply-demand balance reporting updates, there is still insufficient evidence provided to understand changes in some areas. In some areas, the evidence suggests that non-delivery or underperformance is the cause. We are concerned about the company not meeting expected WRMP19 PCC levels, non-delivery of PR19 funded schemes, and changes to assumptions within the water balance such as population forecasts, non-household demand increasing by 37%, and a 30% increase in target headroom (uncertainty allowance). This means that we have significant concerns whether the overall outcome of the WRMP19 as funded at PR19 has been delivered. The company should fully quantify and justify the reasoning for changes between WRMP19 and the starting point for WRMP24 at a supply-demand balance component level with sufficient and convincing evidence.	We have included a comparison of our starting point in WRMP24 compared to the same position in our WRMP19 in a new section in the plan, section 6.10. Here we articulate any changes between key numbers and assumptions, and he reasons for this. We expect to meet WRMP19 out turn for our PCC forecasts and PR19 schemes. Our revised demand forecasts have been updated using the most recent available data for the region and include changes to local plans and aspirations for increased growth in the Greater Cambridge area. We have revised our target headroom risk profile from our initial draft plan, to align with the risk profile that was applied at WRMP19 and consistent with the approach for WRE companies. By including risk and uncertainty due to non-delivery of DMOs in the headroom calculation, the overall target for headroom has reduced. Baseline forecast distribution input at 2025-26 remains similar to that forecast in our preferred plan for WRMP19 with <1% variation. The main driver of difference in the overall SDB is the increased sustainability reductions for No Deterioration, at WRMP19 this was c 6Ml/d, and this has increased to c.26Ml/d in WRMP24. WAFU in 2025 in both WRMP19 and our revised draft WRMP24 remains within <1.5%

There is limited evidence provided that the benefits of funded PR19 activities have been appropriately factored into the draft WRMP24 baseline supply-demand balance. South Staffs Water should provide granular details of the benefits of funded schemes and how and when these have benefitted the baseline supply-demand balance. Where a step change in supply demand balance between WRMP19 and WRMP24 is not sufficiently justified by scenario drivers, and may instead be as a result of non-delivery or underperformance, considerations will be made at PR24 in the assessment of enhancement funding.	We have included a new section in our plan, section 2.2, which details our AMP7 funded activities and our performance against them. Here we articulate any implications this has had on our planning assumptions and the impact these have had on our baseline supply-demand balance.
It is important that WRMP19 supply- and demand-side options are on track ahead of WRMP24. We expect the company to make substantial efforts on delivering its schemes and demand reduction for the rest of the 2020-25 price control period, to ensure that WRMP19 forecast, and PR19 performance commitment targets are met annually, and to set firm foundations for delivering WRMP24.	We provide detail on our performance against these WRMP19 in section 2.2 of the revised draft WRMP. As shared in our 2022/23 WRMP19 annual review, we have extensive improvement plans in place for elements where we are off track, which is most notably PCC. Our review shared the details of these plans, and we say a 5 l/p/d reduction in PCC between 2021/22 and 2022/23 as a result of these plans which are set to continue throughout the rest of AMP7. In addition, we also outlined our plan to catch up on our meter installation programme and to then accelerate meter delivery in year 5 of the AMP. We are confident we have robust improvement plans in place for these two areas and will continue our focus on the delivery of the supply side schemes outlined at WRMP19.
It is important that the company manages the uncertainty around population growth effectively to make sure its programme delivers secure supplies to meet demands in the short and long term, while also not overinvesting in potentially sub-optimal solutions that may not be necessary or needed to the same scale. This is important as, in response to a query, Cambridge Water confirmed that the WRMP24 population forecasts were 10,590 and 19,030 higher in 2025-26 and 2029-30 respectively when compared to the same dates in the WRMP19. These are significant changes in population estimates over a short time period especially for a company of Cambridge Water's size. This concern is amplified by the company stating that population forecasts are based on old data (pre-Covid-19) and will	For the revised draft WRMP we have updated our household and non-household demand forecasts and have worked closely with Greater Cambridge Shared Planning in order to do this to ensure they accurately reflect the latest local plans as well as the current employment projections. We have developed various scenarios relating to growth and have tested our plan against these scenarios. We outline the growth scenarios for both HH and NHH in the revised draft WRMP in chapter 5.2. We have discussed our baseline growth scenario with the Environment Agency and

be updated for the final plan using updates of population and properties taking account of any changes to population as well as Government annual housing growth targets. This activity should have been completed for the draft WRMP consultation as it risks significantly changing the investments presented in the final plan. Any changes to population and property numbers need to be sufficiently evidenced in the final plan with a clear explanation of the consequences to the investment programme and how customers and the environment are not worse off.	Greater Cambridge Shared Planning and are confident this most accurately represents the current published levels of growth in the Cambridge region aligned to the WRPG.
Based on other company plans we understand that Office for National Statistics (ONS) growth scenarios can be significantly lower than in company preferred pathways and that high forecasts can be driving unnecessary investment in the short term that can be better managed through adaptive planning and more modular solutions. However, Cambridge Water has been unable to present the numbers used for a low demand scenario for this comparison to be made. We expect the company to provide low demand scenario data as well sufficient and convincing evidence that uncertain population growth especially post-2030 is not driving significant amounts of uncertain investment in the 2025-30 period	For the revised draft plan we have run a scenario where we use ONS data as the baseline for our plan. This shows that the ONS data actually forecasts a reduction in demand. This is because the forecasted new build growth for the ONS scenario is very low. Our demand forecast assumes a general reduction in use due to most micro-component use reducing following an exisiting trend. In addition, is assumes the current rate of customers opting to a meter and takes into account the reduction in demand this typically brings. As a result, this modest increase in growth is offset by these elements leading to an overall reduction in demand. As you will be aware, there are currently regular meetings being held between Cambridge Water, the Environment Agency, Defra and the Greater Cambridge Shared Planning teams regarding the risk that the current proposed levels of growth pose to the environment and the water resource availability in the area relating to the current objections lodged by the Environment Agency regarding current developments. These are issues we are facing in the region now based on the current level of proposed growth, and therefore we believe it to be inapproprate to plan for a level of growth that we know to be lower than both the local published plan and the aspirations set out by Government departments such as DHLUC for the Cambridge area, and which shows demand reducing.

	We include the details of this low growth scenario in section 11.7 of the revised draft WRMP.
Based on its draft plan and query responses, it is unclear if Cambridge Water has tested the optimum timing of achieving 1 in 500 year drought resilience and if it fully understands how this testing should be undertaken. We note that the company states that once all its planned options are in place it will be resilient to a 1 in 500 drought event and that this will be before 2040. This does not mean that the company is already resilient to a 1 in 500 year event which it states elsewhere. Cambridge Water should provide sufficient and convincing evidence to show that it has robustly tested the sensitivity for the date to meet 1 in 500 year drought resilience. This should include presenting the costs, benefits and impact on the selection of preferred schemes and of choosing alternative dates including a test of delivery in 2050. The selected date to achieve 1 in 500 year drought resilience should be justified based on this testing and optimised based on the costs and benefits. This is important as the scale of impact, and importantly the date for achieving it, is a key driver for scheduling schemes in the investment programme	Our revised draft WRMP outlines that we achieve the 1 in 500 level of resilience once the preferred option of Fens Reservoir comes on line in 2036. However, the timing of Fens Reservoir in the plan is not driven by the 1 in 500 date requirement, it is driven by the environmental destination abstraction reductions required for Cambridge Water as well as to meet the no deterioration licence reductions for Anglian Water. Therefore the option to delay reaching the 1 in 500 resilience level would mean delaying the implementation on Fens Reservoir, which in turn would cause delays to meeting statutory licence reductions. Therefore this approach would mean statutory obligations are not met and is not a suitable option. We have included this detail in section 11.4.5 of the revised draft WRMP.
The company should be clearer in how it presents the levels of service that delivery of the WRMP will provide to customers. For example, based on the draft WRMP, it is not clear what level of service is being provided for emergency drought orders (standpipes or rota cuts), with references found for once every 100, 200 and 500 years and no clear indication when in the planning period they change. Cambridge Water's final WRMP should make clear what is being delivered and by when and that any changes to levels of service have customer support.	We have updated table 8 in section 6.1.3 to provide clarity around our levels of service, detailing the date we expect to deliver 1 in 500 drought resilience from our current standard of 1 in 200 years.
Cambridge Water's assumption around its outage allowance (which contributes to the company supply-demand balance and proposal for investment), is high compared to most other companies at over 5% of the company distribution input. Therefore, this planning assumption contributes to the company supply-demand balance and proposals for investment. The company needs to present sufficient and convincing evidence that the outage allowance is appropriate in both the short and long term, and is not driving unnecessary and high regret investment. It also needs to set out how this level	Our outage allowance has been calculated in accordance with the planning guidelines WRMP24 Supplementary Guidance 16032021, EA, and the recommended technical approach in UKWIR report Outage allowances for water resources planning (UKWIR,1995). As per guidance, the data used in our models to determine the allowance is based on recent, relevant, actual outage

of outage tracks the reported unplanned outage performance commitment, and what options the company has considered to reduce its outage allowance.	data you have collected, this was reviewed for events up to 2021. Our outage figure is 5.7% through AMP8 rising to 5.8% of distribution input in AMP9 and is reviewed and updated every 5 years with new data. Due to the relative number of sources versus distribution input contributing to supply in an integrated network it is not appropriate to compare our WRZ with other companies – for instance over 40% of our sources have an individual deployable output above the outage allowance. The allowance does not drive investment additional to that required for meeting licence caps to prevent deterioration and is appropriate to allow for planned outages to maintain assets – which would be minimised in a dry year scenario - and unplanned outages outside of our control, which could still apply in a dry year scenario. An underestimation of outage allowance, in particular relating to longer term unplanned issues, would increase risks to the security of supply. In the longer term, changes to supplies as options are implemented will change the outage risk profile, and this will be reviewed in subsequent WRMPS, in the meantime it is appropriate to maintain <6% outage allowance, where it is not driving additional supply investment. Outturn outage will legitimately vary year from year, and from the outage allowance for WRMP and the unplanned outage performance commitment. Both the performance commitment and WRMP outturn outage figures are derived from the same database of events, however the methodology of event types included and the approach to longer term outage adjustments is different, so they will not match. For example, water quality events are excluded from the performance commitment, but not the WRMP allowance and therefore there is a

	difference in the methodology used for outage calculation for the Environment Agency and for Ofwat. The outage allowance has been relatively consistent following reviews of data since WRMP14, reflecting that the types of events experienced, and the resulting average outage are appropriate for our WRZ. We do not consider that there are options available to reduce outage due to the proportion of induvial sources that have outputs above the allowance and the risks that a lower figure would introduce into our WRZ system.
We queried how many unique options (removing sub-options) were included on the feasible list, how much water they could provide and what proportion of expected needs these could meet by 2050. The response shows that when compared to expected need of 67 Ml/d, the feasible options can meet around 190% of its need. The company only presents 26 feasible options of which 18 are selected in its preferred programme. The company does not provide a sufficient range of options to provide confidence that its proposed investment programme is best value over the long term	As part of developing the Cambridge Water WRMP24, a key element involves options development. Here we identify any potential new supply options, and our process identified over 130 options. These options include: • New groundwater • New surface water • Licence trades • Water transfers • Groundwater enhancement • Water reuse These options must then be screened to ensure they are feasible and so these have a high level environment assessment to identify any concerns that cannot be mitigated. Any options that pass this screening process progress as feasible options, and these are shared with key stakeholders and regulators at pre-consultation phase. As a result of feedback at this stage, additional options, predominantly groundwater options and licence trades relating to chalk aquifers, were also screened out. This led to a final feasible options list of just 18 options. These options include: • Groundwater enhancement • Water transfers

	• New surface water Due to the unique nature of our geography in that we are nearly 100% chalk aquifers, there are very limited opportunities to source more water inside of our region and we are reliant on water availability outside of our area through transfers and new surface water options such as the Fens Reservoir.
In its final plan, Cambridge Water should provide sufficient and convincing evidence that it has undertaken a robust unconstrained options identification programme, or widen the number and range of options identified. If the company is restricted by the options available in its supply area it should consider a range of options from outside its operating area, including from all neighbouring companies and regions. In addition to the points above, we note that the net surplus generated by the preferred options is very low before the Fens reservoir is proposed to come online in 2035. The company should provide sufficient and compelling evidence in its final WRMP that the number, range and scale of options is appropriate and allows sufficient flexibility for optimisation.	As part of developing the Cambridge Water WRMP24, a key element involves options development. Here we identify any potential new supply options, and our process identified over 130 options. These options include: • New groundwater • New surface water • Licence trades • Water transfers • Groundwater enhancement • Water reuse These options must then be screened to ensure they are feasible and so these have a high level environment assessment to identify any concerns that cannot be mitigated. Any options that pass this screening process progress as feasible options, and these are shared with key stakeholders and regulators at pre-consultation phase. As a result of feedback at this stage, additional options, predominantly groundwater options and licence trades relating to chalk aquifers, were also screened out. This led to a final feasible options list of just 18 options. These options include: • Groundwater enhancement • Water transfers • New surface water Due to the unique nature of our geography in that we are nearly 100% chalk aquifers, there are very limited opportunities to source more water inside of our region and we are reliant on water availability outside of our area through

	transfers and new surface water options such as the Fens Reservoir. We have worked collaboratively with Water Resources East, the other regional planning groups and other sectors to identify all available new sources of water.
Cambridge Water includes 22 unconstrained third-party options in its draft WRMP though none of these are identified as feasible and there is no explanation of why they cannot be explored further. There is insufficient evidence that the company has met the expectations around the identification and fair treatment of third-party options as described in the water resources planning guidelines. Companies should take an active engagement role and support third-parties in their provision of information and analysis as part of the development of third-party options. We expect sufficient and convincing evidence in the final WRMP that all parts of the guidance have been followed appropriately in relation to third party options, and that the lack of third-party options in the company's preferred plan is because such options have not been considered to provide low regret best value.	We had no bids into our Market Information tables from third parties, all of the third-party options were identified by the company and consultants on our behalf. These options were screened out broadly due to the criteria below, as set out in options list in Appendices N1-N3: • Licence trading options in the chalk – screened out due to trade volumes being capped at recent actual, and the licences considered either in future use by other water companies/third parties at those quantities, or the recent actual quantities being insufficient for a feasible option. Also low confidence in the ability to progress with other abstractors and licence uncertainty. • Greensand licence trades – lack of water availability due to recent actual trade constraints and need to trade to an existing WTW to efficiently utilise the volume available ruled out by localised no deterioration concerns. • Mid-level transfers – screened out due to uncertainty over available volume, water quality risks, environmental impacts and geographical location • Ely Ouse Essex Transfers – concerns over the utilisation as this is required by ESW in dry years, no effective DYAA yield • Gravels options – screened out due to uncertainty over the

	reliability and volume this would yield and the likely localised impact on environment and other water users, navigational, recreational. None of the options considered as 3rd party provided sufficient certainty to be considered low regret or best value options within the screening criteria.
To address the supply demand balance deficit in the near-term Cambridge Water has included the benefit from drought management measures in any dry year. Cambridge Water should clarify how it will apply drought measures to manage demand and abstraction in its final WRMP.	We have included our drought measures as instructed by the Environment Agency and these directly correspond to the drought measures detailed in our latest drought plan which we published in April 2022. For Cambridge Water, we have no drought permits or orders that deliver supply side benefits. Our drought measures relate to demand management, i.e. temporary use bans and non-essential use bans. As the data tables represent a 1 in 500 year drought, this corresponds to level 4 in our drought plan. TUBs are a level 2 measure and NEUBs are a level 3 measure and so both of these could have been implemented. We have only included TUBs and not NEUBs benefits due to uncertainty and the unlikelihood they would be in for every year in a dry year 1:500 drought, particularly linking to the economic implications of doing so. The benefits included are the same as those included in our drought plan.
Cambridge Water has not provided sufficient information regarding option utilisation in its draft WRMP. Extra information was provided to Ofwat on utilisation after querying. We expect to see more robust evidence on utilisation in the final WRMP in line with feedback in our pre-consultation feedback letters, to fully explain and justify the utilisation rates given and to provide evidence that modularity and scalability in optioneering has been fully considered and explored to manage low utilisation situations. We require clearer and more detailed evidence in the final WRMP that operational interventions have been considered and will	We have provided additional information regarding option utilisation in the revised draft WRMP. For the Grafham transfer, we assume 100% utilisation upon commissioning and for the length of the transfer availability. For Fens Reservoir we also assume 100% following a phased increase to the yield availability following commissioning but effectively assuming that 100% would be available from 2036 and enables the potential to deliver ED reductions earlier.

be implemented where appropriate if this is the best value solution	
Fens reservoir has a comparatively high unit cost. This is a large project which will require significant investment. Cambridge Water should provide clear and robust evidence around the selection of Fens reservoir, and the best value least regrets size and yield, in its final WRMP and present a clearly evidenced and thought-through approach. This should include consideration of other options to increase the yield of the Fens reservoir. The company should provide assurance that costs for Fens reservoir and the associated transfer used in modelling are the latest costs.	We have provided more information in the revised draft WRMP regarding the selection of Fens Reservoir in WRE modelling, including the size and yield. We also share the work that has been ongoing since the draft WRMP to review the yield of Fens. The costs we have included are the latest costs and are the same as those included by Anglian Water for their revised draft WRMP.
The lead in times for options are not completed in the draft WRMP data tables. We expect these to be presented in the final WRMP as well as any explanation of where lead in times may be limiting option selection. Given we have been unable to comment on these there is an increased likelihood that we may intervene at PR24 if this is generating sub-optimal investment and higher costs for customers	We have ensured that all lead in times are included in the updated tables we will submit alongside our revised draft WRMP.
Table 4 (Options Appraisal Summary) includes a column to flag interdependent options. These are options which are dependent on one another. We expect the company to ensure that interdependent options are flagged through this table to ensure clarity when regulators review the company's options appraisal and selection. Option CW2473A (Fens Reservoir internal potable water transfer Chatteris) for example, is not flagged as interdependent in Table 4. However, it is dependent on the Fens reservoir option. This is not clear in Table 4. The company should review interdependencies between its options and ensure that this is clearly explained in its final plan and that its data tables are also completed in full	Option CW2473 is the Fens transfer and included the WAFU benefit of the transfer. Fens reservoir is not included a specific option in table 4 as it is being developed through the RAPID process with WRE as a SDRO alongside WRMPs. We have included the benefits of the reservoir in the transfer option and a 50% proportion of the cost for the Fens reservoir in table 5. Whilst not strictly an interdependency in the options presented in table 4, we have commented on the SRO dependency.
Cambridge Water has described how its draft WRMP is informed by the relevant regional plan. However, further detail describing the regional methods and approaches should be added for the final WRMP.	We have included an additional chapter in the revised draft WRMP, 10.1.3, which details the WRE process and how our plan links to this.
The final WRMP narrative should contain a complete and standalone explanation of decision making at the company level. Cambridge Water should provide an explanation of the optimisation process used to derive the preferred programme including the use of tools.	We have included more detail on our decision-making process, including constraints on this, in section 9.7 of the revised draft WRMP.
Identification and consideration of best value metrics have been presented, however the line of sight to the	We have covered this in a new section in the revised draft WRMP, section 9.3.4.3.

draft WRMP objectives is unclear. Cambridge Water should provide further detail in the final WRMP explaining how the best value metrics align with the plan objectives. Furthermore, it would be beneficial to clearly identify the line of sight to sub-metrics and to outcomes. This would help structure and justify the preferred plan selected.	
Cambridge Water has considered a range of economic, social and environmental benefits that the options can deliver. Cambridge Water has not referred to Ofwat's public value principles. We would like Cambridge Water to use Ofwat's public value principles, and reflect expectations referred to in the PR24 final methodology, within its best value planning process in its final plan and explain how these have been used to inform best value decision making.	We have included a new section in the revised draft WRMP, section 9.8, which details Ofwat's public value principles and how these have been reflected in our plan.
In combination assessments have been included for environment but not for deployable output at the programme level as part of best value plan assessment, and these should be completed for the final WRMP	We have added in detail for this in section 11.6 of the revised draft WRMP.
As raised in the section above, we are concerned that Cambridge Water's least cost and best value plans select the same options due to the limited options available. The draft plan does not justify this outcome in the context of best value decision making, but ascribes it to the limited options available in relation to the deficit. Cambridge Water's final plan should demonstrate that a lack of options does not result in a sub-optimal programme	In chapter 9.5 of the revised draft WRMP, we include more detail on the range of options (numbering 130) that were considered as part of the plan, plus the constraints that have meant there are only 18 feasible options. The revised draft also includes information to demonstrate our selected options are low/no regrets and provide the greatest benefit to the region.
While the best value plan and the least cost plan are currently the same, if there is a change in the plans the company should clearly present the benefits of the least cost plan against its preferred plan. It should provide the total cost and overall value of each of the programmes. Where investment is proposed beyond least cost, the value of the additional benefit needs to be presented within the WRMP planning tables, with the robustness of this valuation data important for significant areas of investment. As well as clearly presenting this, the company should provide sufficient and convincing evidence that the costs to deliver the best value plan is outweighed by the additional value it provides	We have included more detail on this in chapter 11.8 Alternative Planning.
Cambridge Water should further demonstrate in its final WRMP that decision making has not been influenced by artificial constraints and that any constraints applied are appropriate. This includes presenting the implications of	We have made it clearer in the revised draft WRMP that the 1 in 500 requirement is not driving any of the timelines for actions – it is achieved once Fens

sensitivity testing of different profiles of 1 in 500 year drought resilience, flexing the use of drought permits and orders, testing different glide paths on water efficiency and leakage as well as use of temporary use bans (TUBs) and nonessential use bans (NEUBs).	Reservoir comes online and this timeline is driven by the licence caps faced by Anglian Water as well as longer term growth and environmental needs in the Cambridge Water region.
The adaptive planning section justifies not adopting an adaptive planning approach by stating that the plan is 'solely dependent on demand reductions'. We do not understand or accept this justification as a large supply option is proposed for investment in 2025-30. Cambridge Water should present adaptive pathways and trigger points as well as target headroom and explain how these have been established based on uncertainties. Cambridge Water should also evidence that it is not double counting uncertainty. Sensitivity analysis around trigger points should be completed and presented in the final plan	We have updated this for the revised draft plan and share details of our adaptive planning in section 11.8.
In its final plan, we expect Cambridge Water to present a core pathway in line with the Water Resource Planning Guideline (WRPG) definition that includes low-regret investment to meet future uncertainties and additional option value to allow further flexibility in the future. The company needs to demonstrate that scenario testing, including the common reference scenarios, has been used to identify low-regret investment that is required in all or most plausible futures. This should expose what investment should be undertaken regardless of future circumstances.	In the revised draft WRMP we present our core pathway is section 11.6. We also include additional information on the scenario testing we have undertaken on this in section 11.7 of the revised draft WRMP, entitled Scenario Testing.
As part of this evidence, Cambridge Water should clearly set out the impact of the Ofwat common reference scenarios compared to the 'most likely' scenarios on which the preferred plan is based. This should include quantifying the impact on demand of the low and high scenarios for climate change, demand, and abstraction reductions across the planning period. The company should also quantify the estimated impact on the expenditure requirement of: 1) planning based on the high scenarios for climate change, demand, and abstraction reductions, and the slower scenario for technology; and 2) planning based on the low scenarios for climate change, demand, and abstraction reductions, and the faster scenario for technology. This will allow for improved understanding of the drivers of investment, the sensitivity of the plan to future scenarios and confidence in the investments being proposed. The company should use the results of this	We have included this detail in section 11.7 of the revised draft WRMP, entitled Scenario Testing.

testing to identify and justify with sufficient and convincing evidence low regret investments, rather than just ones that meet both high and low planning needs in a non-adaptive way	
Cambridge Water has not presented a single plan with one preferred pathway of solutions and a set of alternative investment options with trigger and decision points. This should be presented in the final plan. The final plan needs to present clearly the preferred, core and alternative programmes scheduled throughout the planning horizon. This should include the final size, yield and operation of the solutions including the strategic schemes. As discussed earlier in this section and previous section, we have concern that this is due to a limited number of options restricting the ability to develop different pathways.	We have included a new section in the revised draft WRMP, section 11.6, which clearly outlines our preferred plan. We have also provided additional detail in section 11.8 regarding our adaptive planning and pathways.
Cambridge Water states that it has tested against high and low compound versions of all the Ofwat common reference scenarios and that this does not result in any change to the preferred plan. However, there is no evidence to explain how the company has reached this conclusion or where the company has presented this data. The company should present this evidence in the final plan	We have included further detail on the outputs of this testing in our revised draft WRMP in section 11.7.
We are concerned that Cambridge Water has not applied our approach for testing the low abstraction reductions scenario and there have been no local reviews to adjust for uncertainty. Given that abstraction reduction is a key driver of the supply-demand deficit, Cambridge Water need to test this scenario in its final plan, in line with our guidance, to help demonstrate options are low-regret. This scenario should 'assume only currently known legal requirements for abstraction reductions up to 2050'. Following the approach agreed between Ofwat, the Environment Agency and the regional water resources planning groups, companies should: • include agreed water industry national environment programme (WINEP) changes and licence capping; and • use the agreed BAU+ scenario to form a long-term view, but use local reviews to remove licence reductions with significant uncertainty, to form a plausible 'extreme low' scenario	We have had discussions with our local Environment Agency team in order to determine a plausible "extreme low" scenario. However, the local EA team deemed that the BAU+ scenario is the lowest scenario they believe will be required, and therefore there is no lower scenario to test. We have included detail on our scenario testing in section 11.7. Due to our unique geology of nearly 100% chalk stream abstraction, there is little difference between the existing environmental destination scenarios as all scenarios ensure protection for these environments.
In its final plan, Cambridge Water should also clearly explain how it has tested the Ofwat common reference scenarios for technology	We have included information on the scenarios tested in section 11.7 of the revised draft WRMP.

The plan links to PR24 and refers to PR24 throughout the document. There is no indication about the scale of investment compared to WRMP19. The query response indicated a significant change in investment from £75.9m NPC in WRMP19 to £352.8m NPV in draft WRMP24.	We have included a comparison to WRMP19 costs in the revised draft WRMP in chapter 12.
The company should provide sufficient and convincing evidence that the preferred options being selected, across all areas of its plan, are best value in its final WRMP24. The company should ensure costs are reliable, efficient, and appropriately allocated, and continue to refine and develop detailed bottom up cost profiles to ensure a greater level of maturity of costings. Cambridge Water should engage with the market further to support this work.	The preferred options selected have been selected using the WRE EBSD model, and these results have been refined using our Valuestream model where the least cost option(s) may not be the only available option to produce a preferred plan. We have costed our supply options using a robust methodology using industry standard models (TR61, WRc) and our WREMP19 cost models (Atkins), COPI uplifted accordingly. Thes costs are bottom up and modular as far as is possible, and representative of the maturity of the options, and will continue to be refined for options as they are developed. The full methodology is available on request (subject to commercial confidentiality) - 5211472-ATK-RP-7.9-074 CAM dWRMP24 Methodology for Estimating Option Costs V2.
Cambridge Water has not presented the draft WRMP's impact on customer bills to support the consultation and help stakeholders come to an informed opinion. This is particularly important given the scale of investment being presented in the context of the size of the company. We expect the company to provide sufficient and convincing evidence that the estimated bill impacts of the programme (and other areas of investment for PR24) has informed customer engagement and choices around policy drivers and therefore scheduling of investment in the final WRMP	We have included a new section in the revised draft WRMP, section 12.3, which details the proposed bill impact. We also discuss here the opportunities for co-funding and co-delivery.
However, there is limited evidence provided to give confidence that customers fully understand and support the approach on areas such as the need for investment and the proposed solutions. Cambridge Water should provide evidence that customers have enough information, particularly on the development of the Fens reservoir, including alternatives and its contribution to addressing the water need. We would	We have undertaken additional work with customers on this topic through our PR24 engagement work as we prepared our business plans. We have developed an additional appendix to document this.

expect to see further clarity on this, and potentially further work reflected in the final WRMP	
The draft WRMP presents limited detail on partnership opportunities to enable co-funding and co-delivery. This should be detailed further in the final plan	We have included additional detail on this throughout the revised draft WRMP.
In the final plan, we expect to see evidence of assurance on Cambridge Water's understanding and acceptance of the approach to licence capping. This is to ensure the risk and impact this imposes to Cambridge Water is fully understood in the context of the largest drivers of future investment in the plan and the uncertainty that still surrounds this.	We have provided more detail regarding the licence caps in section 6.9.6 of the plan. Here we have provided the following: • Detailed which licences are impacted and the catchments affected • Shared the licence cap impact to DO for each licence • Confirmed the date of implementation as 2030, excepting those time limited licences which will be impacted before this • Shared impact on plan of these caps and any cost implications as a result • Shared our Board engagement on this topic and confirmation of approval
As identified above, the draft WRMP programme for 2025-30 represents a significant uplift in expenditure compared to the PR19 programme. For its final WRMP we expect the company to provide sufficient and convincing evidence that the Board has challenged and satisfied itself that the WRMP and the expenditure proposals within them are deliverable in the context of the wider PR24 business plan proposals. The company should also demonstrate that it has put in place measures to ensure that the plans, of which the WRMP forms a key part, can be delivered	We have included a new section in our revised draft WRMP, section 11.3, which outlines how we will deliver and report our demand management options. We have also added a new section, 11.5, in the revised draft WRMP that outlines how we will deliver the supply side options outlined in our plan. We have also expanded section 2.14 which relates to governance and assurance of the plan to outline the full extent of Board involvement and approval.
In its final WRMP South Staffs Water should: clearly state the objectives of the plan and provide clear line of sight from the best value metrics to the plan objectives.	We have included these objectives in the summary of Chapter 2 of our plan. These objectives are: • Deliver a sustainable and resilient supply of water for both our household and non-household customers now and in the future.

	• Commit to reducing the amount of water we abstract from the environment over the lifetime of the plan in order to protect and enhance the natural environment in which we operate. • Identify the longer term uncertainties e.g. climate change, and, if required, provide adaptive pathways within the plan in order to ensure we can respond to future challenges. • Be acceptable and affordable for our customers.

3.20 Strategic Panel & Committees

Consultation Comment	Response
The NHH market must be fully integrated into these plans [WRMPs] as business customers represent a significant opportunity to reduce demand and as the majority of NHH customers use water for the same purposes as household customers (taps and toilets).	In our draft WRMP, we included a 9% reduction in NHH consumption by 2038, aligned with the proposed target in the Environment Act. Since then, this target has been confirmed and we have also included additional NHH consumption reduction activities in our revised draft WRMP in order to support this work and achieve a 15% reduction by 2050. We have also proposed that both the smart metering rollout and water efficiency audits will be undertaken across both household and non-household customers in the same area, where this is appropriate e.g. for local businesses such as hairdressers, shops etc. We believe there are similarities between the requirements and efficiencies to be had by combining these activities in a geographical location. We will continue to work with retailers to enable this activity.
I urge all water companies to clarify their plans for NHH smarter metering and water efficiency within their final WRMPs and ensure engagement with the market is at a Board level.	We have included additional detail in our revised draft WRMP on our NHH consumption reduction plans and this can be found in section 11.1.4 of the main document.

3.21 Waterwise

Consultation Comment	Response
We do want to see the final plan reference the new UK Water Efficiency Strategy to 2030 which the company helped develop	We have included reference to this in table 4 in the updated revised draft WRMP.
We query the water efficiency costs in Table 37 which show minimal costs incurred after AMP8 with no water efficiency programme costs included in AMP9 and AMP10. We do not believe that it is tenable, given the water availability pressures the company faces, for it to have included no budget to support water saving between 2030 and 2040. For example with the planned roll-out of smart meters through to 2035 a budget needs to be included to proactively engage with customers on their consumption through an app or digital portal. We also believe there will need to be household water saving visits in AMP9 and AMP10 to capture new homes and also people moving into existing properties in the area.	We have reviewed and updated our water efficiency activities and spend in the revised draft WRMP. More detail on this can be seen in our data tables and in section 11.1.3. of the main plan. Our revised draft WRMP now shows that we will be undertaking household water audits throughout AMP8 and AMP9 and have committed funding through the remaining AMPs to ensure this level of water saving is maintained through this activity.
Other areas where we think investment would be worthwhile include: - We would like to see fundings to support a campaign on leaky loos. One possibility would be to work on a collaborative campaign on leaky loos with other water companies, the BMA and Waterwise as recommended in our position statement. - We would encourage Cambridge Water to also include a campaign to raise awareness on dual flush toilet buttons. Research by ESW has found 20% of people incorrectly identify which is the small flush button in their own homes. - A number of water sector trials across the UK (Sussex, Affinity, NWL, UU) are finding that flow controllers can reduce consumption by around 30-64 litres per property per day. Although Cambridge Water note that they are seeking Ofwat Innovation Fund money to trial such devices, we would like the company to commit to do this anyway if the fund bid is unsuccessful. For example they could be fitted alongside the meter as part of the metering roll-out or alternatively in all new build homes/on change of occupancy. As well as targeting new build Cambridge Water could also work with local authorities and housing associations to install them in social housing.	We have included costs in our plan to deliver the water efficiency savings required, and an element of this work involves communication and promotion of water saving devices and actions. We have undertaken campaigns on leaky loos through AMP7 and are doing some additional work as part of our household water audit programme to identify these further. We will continue to build on this in AMP8 and beyond. We were part of a collaborative bid for the Ofwat Innovation Fund relating to flow regulators, which unfortunately was unsuccessful. However, we have plans to continue with this work in AMP7 through our water efficiency programme, and if this is successful, we will continue to build on this through future AMPs.

We fully support the proposed universal smart meter roll-out to HH and NHH properties and that this is brought forward to 2033 following successful granting of Accelerator funds). However we believe the company should be going faster than this and should complete its roll out by 2030. Our research coupled with the experiences of Anglian and Thames Water to date have shown that smart metering is a game changer when it comes to reducing leakage and engaging with customers on water use and water wastage; these benefits need to be set out in the final plan. As highlighted above it is also important that Cambridge Water include a budget to use the insights from the smart meters to engage with HH and NHH customers on water saving.	We have included costs in our plan to deliver the water efficiency savings required, and an element of this work involves communication of the data insights from metering to provide customers with information, advice and support to help make informed choices around their water usage. We will also deliver more targeted information and campaigns. As part of our optimisation, we have assessed delivering the universal metering programme by 2030. However, there are several reasons that we do not believe this is a viable option: • We have developed our plan with our supply chain to ensure that it is deliverable – accelerating the proposed programme would create supply chain issues with resources to deliver and meter availability. • All companies have ambitious metering programmes. This is putting a strain on meter stock, which is exacerbated by current world affairs. • Several companies have undertaken large scale metering programmes between 2020 and 2025 and found delivery challenging – we have liaised with these companies to understand the lessons learned and ensure we build a plan that reflects these. In Cambridge we already have a higher level of metering penetration than the industry average at 74%, and we acknowledge that 100% will not be fully achievable due to shared supplies and other complexities, but believe our plan is ambitious and deliverable.
We are pleased to see that Cambridge Water recognises the potential contributions to demand reduction from government policies such as water labelling of water	We have included costs in our plan to deliver the water efficiency savings required, and an element of this work

using products (not just white goods as referred on p81) and have included this in the baseline forecast. We are asking all companies to include a budget in their final plans to support/promote the roll-out of water labelling in AMP8 helping to explain to their customers why it is important and how they can use the label. The trial of an incentive scheme could also be considered. There are further opportunities to secure additional savings through more ambitious policy with regards to new build development and retrofit and we would urge Cambridge Water to continue to work with Waterwise to advocate for more supportive policies.	involves communication and promotion of water saving devices and actions. This would include water labelling.
We are pleased to see dWRMP24 plan recognise the recent policy and regulatory announcements around reducing NHH water demand. It is also positive that a budget has been included in the plan to deliver savings in collaboration with retailers. This is not the case with many of the draft plans of other water companies. Whilst it is good to see that the government's 9% can be achieved through the Cambridge Water metering programme we believe that it is also important that government, water retailers, trade bodies and other players also collaborate to help achieve or exceed the 9% reduction and this could be flagged more clearly in the final plan.	For our revised draft WRMP we have updated our demand forecasts by working with local planning authorities and collating employment projections. For NHH this has led to an increase in the demand forecasted – by 2038 NHH demand will have increased 55% from the 19/20 baseline level. In order to deliver a 9% reduction, all of this new NHH growth would have to be water neutral as well as reducing consumption across existing properties. Our work has shown this is not possible. As such, we are proposing to deliver a 9% reduction from the 2038 forecasted position and a 15% reduction from the 2050 forecasted position. In our revised draft WRMP we have further emphasised the importance of collaborative working and are supportive of the proposal to create a RAPID style approach for demand management, titled ARID. We believe that a national approach is required to ensure effective and efficient delivery of the NHH target to ensure clear communication and standardised approaches for retailers and our NHH customers. We are working closely with Greater Cambridge Planning, the Environment Agency and Defra to ensure that the growth in the Cambridge region is sustainable. We are working with the new Water Scarcity Working Group that has been convened by the Department for

	Levelling Up, Housing and Communities, the Environment Agency, Ofwat, central and local government and innovators across industries to accelerate plans to address water scarcity in the area. As part of this work we are exploring the role all sectors must play in ensuring the development is sustainable and the options and opportunities we can explore to achieve this. This proposal it outlined here Long-term plan for housing - GOV.UK (www.gov.uk)
A portion of the potential deficit in the Cambridge Water area is driven by future decisions on the type and location of future development. We are pleased to see the company plans to continue with its developer incentive scheme and will seek further reductions through support to schemes such as water neutrality and grey/rainwater reuse systems. Thames Water has a good existing example of an incentive scheme that does this.	We have seen the value of this scheme throughout AMP7 and are keen to continue and develop this as we move forwards. We have engaged with companies such as Thames Water to understand best practice and look to build on this.
At Waterwise, we're committed to driving equity and preventing discrimination at work and in the work we do. A great deal of our impact is delivered through challenging others through consultations such as this to ensure equity, diversity and inclusion has been considered in all policy and planning decisions. We encourage as you develop the final plan to consider the impacts on social wellbeing and how you will understand impacts of decisions on the diverse members of the Cambridge Water customer base.	We endeavour to ensure that all of our plans take into account our diverse customer base. We acknowledge the potential bill impact of our plan and have developed our support offering relating to affordability, as well as accessibility, through our development of our PR24 plan. Through our customer engagement, we have ensured we have included a wide range of customer backgrounds and situations to ensure our plan is considered and weighed against a diverse range of needs and preferences. We will continue to engage widely across our customer and stakeholder base to ensure all views are represented and understood in this plan and all others we undertake.

3.22 Defra further information request

This section has been added following a review of our statement of response and revised draft plan by the Environment Agency and Defra, and contains further information required by Defra in order to

support the next stage of the WRMP process. We have outlined these requests below, including our response, details of actions taken as a result and the impact on our revised draft plan.

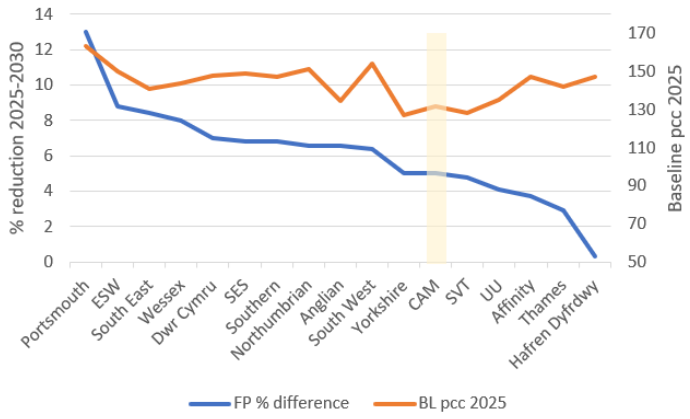
Information Request	Response
Demonstrate that you can achieve sustainable abstraction:	
You should assess the impacts of licence caps being implemented by the Environment Agency from 2025 on your water resources management plan. You should set out how you will balance supply and demand and protect the environment following these changes.	We have appointed consultants to update our previous modelling work which determines the risk classification of our sources with regards to deterioration of the environment. By including more up to date information for other abstractors, we will identify whether any of these risk classifications have changed. This will in turn enable the Environment Agency to identify any sources where they deem the risk to be acceptable where they may wish to accelerate the licence caps to 2025.
The company should review and decide whether to introduce the options outlined below in Annex B ahead of new strategic resource options being delivered.	The options in Annex B are being considered as part of this review to further reduce the risk of deterioration by providing additional benefit in the short term. This project is due to be completed in May, but will have interim results for discussion with the EA. In lieu of these outputs at this current time, we have added section 12.8.1 which outlines our plan against a range of scenarios. We have reviewed the additional options in Annex B in our revised tables; • Housing association programme – now included as a demand option in AMP8. • Accelerated metering – accelerated to 2030 for households, see notes below. • Accelerate leakage – see detailed notes below • Moratorium on NHH where net increase on mains water demand until 2031/32 • Develop Fenstanton and St Ives by 2030. St Ives is included in our plans by 2026. We have commissioned further work to define the feasibility of the Fenstanton option.
You should also work with Anglian Water and Water Resources East to reconsider short term options such as desalination.	WRE have begun a project looking at revised demands and regional options that could be developed ahead of the current regional plan to support our WRMP, and the timing/availability of these to support the short term. We expect the outputs in March/April.
You should seek advice from South West Water as it is currently installing	We have engaged with Anglian Water to discuss de-salination and reviewed the regional de-salination options

a desalination plant in Cornwall as a 2 year project.	available. Through our work with Anglian Water on the feasibility of bringing a de-salination plant into the plan we have determined this is not feasible for the short term to 2031, as current lead times are 7 years for these projects. Discussions with South West Water have indicated that their shorter time frame is because their scheme is made up of multiple containerised units rather than a bespoke solution. Importantly, their scheme is used to provide additional drought top up, not base load supply. Due to the constraints of Reg 31 desalinated water cannot be put directly into supply, and so the water produced by the plant must first go through a wetland (constructed specifically for this purpose) and then into a surface water reservoir, where it is then extracted and undergoes full treatment. They additionally have the benefit of being a coastal water company without needing to rely on additional transfers. For a similar scheme to be viable for Cambridge Water it would need to utilise a similar surface water reservoir and water treatment plant to navigate Reg 31, assets that we do not have as a groundwater abstraction only company. Therefore we would need support from Anglian Water to develop, as detailed above, rather than be a viable solution for Cambridge Water in isolation. South West Water also provided constructive advice on lessons learned and key challenges which indicate that construction in marine coastal environments is relatively unprecedented and that there are multiple concerns from key stakeholders that need to be managed.
Demonstrate how proposed drought measures will effectively meet demand and manage the risk of environmental deterioration: You should complete the work on drought triggers and include worked examples showing how demand will be reduced in dry weather and how this will be effective in managing abstraction at sensitive sites.	Our consultants have started this piece of work and we expect outputs in Summer 2024. This is a considerable piece of work and is primarily the basis of our drought plan and will inform the development of our next plan with pre-consultation due in Autumn 2024. The draft plan will follow in 2025 for formal consultation and a final plan is due to be published in 2026.
Accelerate smart metering: The company has made a choice not to accelerate its household and non-	Acceleration of our metering programme would have been unfunded work in year 5 of AMP7. In AMP7 we identified the

household smart metering programme. The company proposes to deliver full metering over a 10 year period. Other water companies are delivering smart metering faster. This is despite the focus and pressure on water resources in its area and being given approval via the Accelerated Infrastructure Delivery Project process to accelerate installation. There is no adequate justification for this.	need to be joint developers of the Fens Reservoir strategic resource option, which is needed to provide circa 50% of the water to the region in the 2030's and beyond. This AMP, we have struggled to absorb the Fens development costs as they were not accounted for within the Price Control. Our credit agencies do not recognise True-Ups in our ratings, and because of this Fens Reservoir investment has put our metrics under significant pressure. Therefore, it has prevented us from accelerating investment on metering through the Defra fund, as supporting another true-up funded investment was not possible. We believe that Fens is the best value solution and have prioritised this investment despite the challenges it caused. Therefore, we are not proposing to accelerate any household metering into AMP7. We have discussed this detail with both Defra and the Environment Agency to explain our financial limitations for this workstream.
Ofwat has requested the company confirms and justifies the costs of its Advanced Metering Infrastructure (AMI) unit costs in its plan.	Working with our existing supply chain and others in the market, we have benchmarked costs in this area. For AMR and AMI the cost of the meter, the fitting of the meter, and the smart meter infrastructure (including equipment and software which can universally read different meter types) are the same for both types. The major difference in costs between these two is based on the reading of the meters and the transfer of this data into a portal or depository. Our market feedback has two cost model examples for leading network providers: - £1,000-£4,000/network zone (set up cost) and £12/meter/year - £12,000-£18,000/network zone (set up cost) and £4/meter/year Assuming each zone covers 1,000 meters and fitting circa 30,000 meters in the region the additional cost is £390k-£660k (solely for this batch of newly fitted meters). In addition, the annual costs for these new meters are circa £60k-£120k compared to the minimal cost of AMR reading via existing tech and resources. We are liaising with developers in the region to identify any opportunities to include some of this infrastructure on new developments in a cost sharing mechanism to help deliver improvements.

Defra recommends that Cambridge Water rolls out household and non-household smart meters in its area by 2030.	In our revised draft plan, we had already accelerated the delivery of our NHH metering programme from the 2035 completion date in our draft plan to 2030. We have reviewed this now for household meters too and have updated our plan to deliver the maximum household metering penetration by 2030. In order to do this, we have liaised with other water companies who have been delivering large smart metering campaigns in AMP7 to understand the realistic limit of household metering penetration. Using the experience of Thames Water and Anglian Water, and outlined in both of their revised draft WRMPs, there is a view that there is a likely threshold of circa 94/95% metering penetration that is achievable. This is due to factors such as joint supplies, blocks of flats, and other factors that prevent individual property meters being installed or where the cost of metering the households is disproportionately high. Unlike Anglian Water and Thames Water, we do not have the same level of granular detail regarding the remaining properties to be metered and any constraints. As a result, we have included 90% metering penetration by 2030 in our updated plan. During AMP8 we will work to identify the exact proportion of properties we believe cannot have a meter fitted and the reasons why, to identify any future opportunities and actions that could be taken to change this.
Increase the ambition to reduce non-household demand: You must review your proposals for business demand reduction and identify options to achieve further reductions on existing and/or new business demand to help meet interim and long-term targets. You should demonstrate you are proposing to take sufficient mitigating actions to offset business demand growth as much as possible through activities such as metering and water efficiency. You must also continue with discussions and providing updates through the Water Scarcity Working Group. You should:	Our revised draft WRMP saw us accelerate our NHH metering programme by five years and will see us deliver enhanced metering technology to all NHH by 2030. In addition to the NHH water efficiency activity already within our plan, we have reviewed the option looking at restricting new NHH connections until a new supply of water is available. As a result, we have updated our plan to include a moratorium on new NHH connections to our network that would result in a net increase in mains water demand until 2031/32 when the Grafham Transfer is into supply. This means that any new NHHs can be connected if they are able to demonstrate that the development is either water neutral or the demand associated with the development has been offset elsewhere within the Cambridge Water supply region through schemes such as retrofitting, greywater

• reconsider whether to phase, prioritise or even refuse non-household demands until 2032 • consider how restricting water for new non-households could allow you to meet your statutory environmental obligations and reduce the risk of deterioration and free up water for household demand/growth. • accelerate non-household smart metering.	recycling or rainwater harvesting. For any schemes that would lead to an overall increase in demand for water, we would not be able to connect this to our network until 2031/32. This option would reduce demand for water by 3.51 Ml/d by 2030 and 4.23 by 2032. This would support our ability to meet licence cap reductions required by 2030.
Increase the ambition to reduce leakage and Per Capita Consumption: An additional 1.71Ml/d of savings could be realised in AMP9 and whilst this has most benefit for when strategic options should be available, these are subject to risk. Bringing forward the 50% leakage target to 2035 will provide additional resilience for only a small additional cost. (See Annex B for more details on possible options). You should accelerate your leakage programme to ensure the benefits are realised as soon as possible.	We have reviewed the option to deliver 50% leakage reduction in the region by 2035. Whilst our modelling showed the cost of this programme as being only a small increase, the main issue is regarding deliverability. In order to deliver the 50% leakage reduction, we need a higher proportion of AMI meters in our region in order to provide more regular data to help target leakage and at pace. Of our current meter penetration, over 80% are smart but not AMI level, and therefore we need to undertake additional work to upgrade these meters which are not considered in the costing of delivering 50% leakage reduction by 2035. In addition, we will need to utilise technology which is still in development. As such, we deem the level of risk of delivering this reduction in 10 years is high and inclusion would make our plan over optimistic and unrealistic. We have accelerated our leakage delivery in AMP8 though, as identified in our PR24 submission, from 18% reduction to 20% and have updated our WRMP accordingly. Our ambition on leakage is high – over the last three years we have delivered the highest percentage reduction of any water company. In addition, our proposal of 50% reduction by 2040 is the fastest in the industry, with most planning for 2050 and other eastern companies not able to achieve the 50% reduction in their plan.
Ofwat has raised that the company proposes to deliver the interim and long-term PCC targets, however it has concerns over the short-term ambition to reduce PCC. The annual average reduction level of 1.6% over 2025-30 is much lower than the	We have reviewed other companies WRMP data tables to compare the data and found the PCC information provided in the Defra response to be incorrect. Percentage reductions over AMP8 across the companies range from 0.3% to 13%, with Cambridge Water showing a 5% reduction with four companies showing a smaller reduction. All of the companies with higher PCC reductions in AMP8 have a

industry median level of 6.7%, with the 1.6% representing the lowest proposed reduction across companies reviewed to date. Reflecting the challenges in the Cambridge region, Ofwat requires that you propose greater ambition to reduce PCC over the 2025-30 period in your plan. You must ensure that PCC figures and timing are consistent in your revised draft plan and data tables.	higher starting PCC than Cambridge Water, with the exception of Yorkshire Water. They therefore need a larger reduction to achieve the Environment Act targets. The below graph highlights both our PCC starting position and the proposed level of reduction. We recognise that we are in the lower half of companies for percentage reduction; however it is important to note that our starting PCC position is the third lowest in the industry. Our plan was developed to ensure achievement of the PCC targets in the Environment Act, and therefore our reduction is lower than other companies who are starting from a much higher position. 
Cambridge Water should include the feasible option to work with Housing Associations to reduce demand.	We have now included the feasible option to work with Housing Associations in our plan in AMP8. This provides an additional 0.18 Ml/d and delivers an additional 0.4 l/p/d PCC reduction.
The Environment Agency has also identified additional measures where you could reduce demand further, but you are unable to promote them without additional actions by other parties. This includes rainwater harvesting, greywater recycling and retrofit programmes and higher water efficiency standards for new build properties. These options require working with partners to make them feasible. Cambridge Water should	We are working closely with Developers and the Water Scarcity Group to identify how these additional opportunities could be progressed and we will continue to do so. We have included more detail on our engagement on this in section 12.1.3.2 of our updated revised draft WRMP.

highlight the need for and potential benefits of these schemes for its plan and we advise these are progressed through wider water scarcity discussions with key partners as a priority.	
Accelerate and develop supply options: You should resolve the viability of [the Fenstanton borehole] option so that it can be used with confidence in planning or screened out as not feasible and we advise that the company begin this work immediately. The company should develop this option by 2030 to help provide an alternative source of supply ahead of the delivery of strategic options and commence work to confirm the feasibility of this option immediately.	Our consultant is reviewing the feasibility of this option. We have commissioned further work to define the feasibility of the Fenstanton option in combination with the St Ives option. Initially we will be undertaking detailed desktop modelling for a range of hydrological conditions to inform a potential further stage of monitoring and pump testing, if applicable. Investigations will determine the yield available and the potential impact on the environment and other receptors and if the option should then progress to detailed assessment and design. This work will include how rapidly this option could be developed for short term benefit, and if it should be included in our best value plan, or as an adaptive option. We expect this work to be completed by June 2024.
Provide a revised Strategic Environmental Assessment (SEA): You have not submitted your SEA as requested. You must provide your SEA and any outstanding Habitats Regulations Assessments for assessment before the final plan is published. Most of Natural England's recommendations have not been addressed.	Our SEA was submitted a couple of weeks after our draft WRMP. Its receipt has been confirmed.
Natural England has additional concerns that: • There is no detail on how even reduced abstraction will not avoid further harm to protected sites or priority habitats. • It does not have confidence that the proposed licence reductions for abstraction can/will be implemented. • There is over-reliance on existing abstraction to meet growth needs,	We have engaged with Natural England to understand their concerns further, and they have provided detail on these in additional comments in a letter on 2 February. These have been outlined with the further detail alongside our responses in section 3.23 of this document below.

and reliance on the Grafham transfer and Fens Reservoir to cover substantial supply gaps from 2032. • Demand management will not deliver the required reductions to avoid environmental harm over the plan period. You should resolve these concerns or set out how you will do this as plans for the Fens reservoir are developed through RAPID.	
Options to meet water needs and best value programme - Fens Reservoir: You must provide detailed evidence in your revised draft plan and business plan on the justification of Fens Reservoir size selection specifically for Cambridge Water.	We have provided more information regarding the sizing of Fens Reservoir in our RAPID Priority Action 1 report which was submitted to RAPID in Autumn 2023. Since this, RAPID have released their draft decision to say that we have answered all queries within this and can now progress to Gate 3. Section 3.4.2 of this report discussing reservoir sizing. For the revised draft WRMPs and regional plan four sizes for each reservoir were assessed. These were for 25, 50, 75 and 100MCM storage volume. These sizes were chosen as they offered a wide range of storage, yield and dates into supply, enabling real choices to be modelled via the various methods. Previous modelling that informed the draft Regional Plan included a continuum of sizes as well as discrete sizes; this modelling confirmed the size selection and demonstrates there is no need to consider a wider range of sizes than included in the latest modelling. In the range of regional portfolios run through the MORDM WRE simulator, the 50 MCM size for Fens reservoir consistently performed the best across the range of metrics. The current proposed yield of this size reservoir is 88 Ml/d, with 50% going to Cambridge Water. When increasing the size of the reservoir to 75 MCM, the yield does not increase linearly and would produce circa 111 Ml/d due to source availability to fill the reservoir, and therefore the scheme has a much higher unit cost per Ml, which is why it does not get selected in the modelling work.

	Our need for the Fens Reservoir is primarily driven by the potential scale of licence reductions under environmental destination. We have included this information in section 12.4.1.2 of our updated revised draft plan.
Long term best value programme – Bill impacts: You must provide updates on engagement with customers on affordability/bill impacts, and how this has informed the choices in the revised draft plan, given the changes from the draft plan.	We have updated our text in section 5 with our up-to-date customer engagement and the impact this had on our plan.

3.23 Natural England further information request

Following conversations with Natural England about the Defra information request, Natural England have highlighted specific items where further details are required.

Information request	Response
Natural England/Environment Agency shared concerns If you are able to address the Environment Agency's issues, points 1-5, you will have covered several of Natural England's concerns. • Natural England shares the Environment Agency's and other environmental stakeholders lack of confidence in projections and deliverability of the programmes outlined in relation to achieving sustainable abstraction. We refer you to items 1 and 2 in the Defra letter, which are all shared concerns. • We consider that the current draft of the plan is not sufficiently ambitious in its timings, and actions should be brought forward to avoid damage to designated sites, important habitats and species. In our view you should bring forward the leakage and smart metering/water efficiency programmes and reconsider the environmental destination date as outlined in the Defra letter, points 3-5.	Please refer to the response to the EA points above. We have reviewed the ambition of our plans and made adjustments accordingly where appropriate. We maintain that the deliverability of our plan is appropriately ambitious and realistic. Our plan meets the statutory targets for designated sites and environmental destination targets. Where we have been able to include stretch targets we have done so, although the scale of change required for supply reductions is such that this is limited by what is practicable.
The HRA The Defra letter point 6: Accelerate and develop supply *options* raises the point that two of the smaller short	We are progressing with more detailed feasibility of these options separately to the main WRMP in order to improve confidence in the deliverability and

term new groundwater source supply schemes, Fenstanton to St Ives (01B), have been deferred to 2036. In the letter it states that the development of these options should be brought forward to 2030. We understand that these options, in Fenstanton and St Ives, were put back in the programme by five years because Cambridge Water assessed that, following Natural England's comments on these options, there was insufficient time to carry out investigations to rule out an adverse effect on the integrity of the Ouse Washes SPA, SAC, Ramsar site. If these options are to be brought forward, the planned investigations will need to be carried out as soon as possible so that Natural England can fully assess whether these options are likely to lead to adverse effects to the Ouse Washes sites (including functionally linked land of the Washes) and Fenland SAC .	explore earlier deliverability – please see 3.22 above. However this would be outside of the best value plan and as yet we have not sought funding for developing or implementing these options in AMP8. These assessments will include the appropriate level of EIA according to the stages of option development. If the option progresses and remains feasible for earlier delivery, we will provide a programme of works & milestones to determine no AEoI on Ouse Washes SPA, SAC, Ramsar site, and review the in-combination effects at the project level HRA
Please also ensure you have addressed our advice on Option 57, the River Cam abstraction and treatment works, in relation to spined loach and the other notified features of the Fenland SAC.	The NE advice has been addressed in the SEA appendices – Stage 1 Screening. Section 103 of the HRA Report shows that the results of the assessments of the supply-side options show that there are likely sufficient standard and best practice mitigation measures that can be implemented during construction to avoid adverse effects, however without further detailed information regarding each option there are some uncertainties. Further hydrological assessment and surveys to confirm presence and use of offsite functionally linked habitat will be required for a number of options ahead of project-level HRAs. Mitigation measures may be required to avoid adverse effects.
Given the current complicated nature of water level and water quality discussions concerning the Ely Ouse system in relation to the Fens Reservoir and other plans and projects affecting the Ouse, it would still be prudent to consider the cumulative hydrological impacts in relation to the above options and existing options within the SEA, as it will be difficult to make accurate calculations in relation to the reservoir and to provide benefits for the Ouse water levels if there are options that have not been taken into account as affecting the water levels or water quality within the river system.	Cumulative impacts have been assessed as per the in-combination methodology set out in Section 2.5 of the HRA, where the Fens Reservoir SRO concluded need for an AEoI. This will potentially require this scheme to go through the derogations, and therefore would not be considered in-combination with Cambridge Water's supply options.

SSSIs and NNRs are nationally designated and therefore receive protection under the Wildlife & Countryside Act 2017 (as amended) rather than the Habitats Regulations. Effects to these sites are therefore not covered within the HRA, which assesses effects to European and Internationally designated sites. As well as ensuring that condition of these sensitive environmental receptors is not worsened, public bodies have a duty under the NERC act 2006, as strengthened by the Environment Act 2021, to "further the conservation and enhancement of biodiversity", including restoration and enhancing a species population or habitat.	Wetlands as SSSIs have been assessed for any impacts from individual abstractions on water levels through the RoC process in NEP/WINEP and outcomes agreed by NE. We have included additional work in PR24 for agreed sites (with NE) to understand further, more regional impacts on water availability at these sites. The SEA methodology was followed as set out in the SEA Scoping Report.
The water scarcity issue and the effect of a lack of water within designated sites and habitats is, in our view, fundamental to a plan which deals with water supply. If it is not included within the SEA or addressed within any of the submitted documents, our view is that you will at best have a shallow assessment of both the issues and the options put forward to address them.	The SEA assesses the options proposed by the plan and should not cover water scarcity. SEA for WRMPs is in accordance with regulatory requirements and it is the outputs from these assessments that inform the decision-making process on development, mitigation and selection of options/plans that the WRMP proposes. The environmental assessment output allows the environment to be considered in the decision-making process. The WRMP which drives the need of the solutions addresses water scarcity where this is a water supply driven issue. We are working closely with the Water Scarcity Group to identify how these additional opportunities could be progressed and we will continue to do so. We have included more detail on our engagement on this in section 12.1.3.2 of our updated revised draft WRMP.
As discussed in our meeting, local authorities tend to include Issues and Options reports to accompany their Local Plan and Housing Allocation reports, to provide further detail on the issues and options presented in the Strategic Environmental Assessment and Sustainability Appraisal. This report examines the current underlying issues in detail and draws up specific recommendations to address them. The SEA of the Cambridge Water draft WRMP does not include an accompanying report to provide that greater level of understanding, so it needs to provide the environmental context in detail within the SEA itself. The underlying issue is the fact that there	Issues and options reports tend to deal with a wider number of issues in less detail than is applied to specific water supply issues in a WRMP. The WRMP SEA and accompanying reports provide the assessment of the recommended options to address the water supply and demand issues, whilst achieving minimum statutory environmental targets. The issue is that required existing supplies need to be reduced to 'prevent the risk of deterioration' and this is driving the need

is not, at least in the short term, sufficient water to supply both housing and the environment. In our view an assessment of options that does not take this into account does not provide a useful assessment of the current situation.	for supply options, whilst our demand management ensures that planned growth does not require an increase to existing abstractions. We have a duty to supply domestic dwellings and to present a best value plan to regulators and customers for approval, alongside environmental obligations to ensure our operations and proposals are appropriate. The assessment of the situation, and the options required to plan for future is the actual WRMP itself, from baseline situation to final plan. The process of undertaking the SEA (and associated assessments) for WRMPs is in accordance with regulatory requirements and it is the outputs from these assessments that inform the decision-making process on development, mitigation and selection of options/plans through a multicriteria appraisal process i.e. the environmental assessment output does not define the 'acceptability' of options / plans but allows the environment to be considered in the decision making process and where necessary, consultation / engagement with regulators and other stakeholders will be undertaken to inform in that decision making. In addition, we have undertaken SEA in accordance with the SEA methodology as set out in the SEA Scoping Report which was consulted on (with regulators) prior to assessment.
We recommend adding a comprehensive chapter to the beginning of the draft SEA, which sets out the current environmental context ie. the water scarcity situation, with a section within this describing effects to water dependent SSSIs, NNRs and other chalk habitats. This should describe the situation and discuss how the overall objective to supply water to both current levels of housing and the additional housing within the Greater	We have included a more detailed introduction in section 12.10 of the WRMP on SEA in the context of WRMP and general scene setting. This describes how the WRMP is placed as the overall plan for achieving sustainable water supply, and SEA assesses the available options to support the preferred plan decision making process.

Cambridge local plan is likely to affect these sites and habitats.	

4. Environment Agency WRMP Evidence Report

Area of issue	Issue and evidence	Implications	Information or changes required	Cambridge Water Response
Recommendation 1: Demonstrate the company can meet its responsibility to provide secure water supplies to customers, support growth and protect the environment by making significant improvement to its plan.				
R1.1: Planning for a secure, sustainable supply of water.	The Environment Agency (EA) does not have confidence that the draft plan can achieve its responsibilities to secure supplies to meet demand and protect the environment. Baseline dry year water demand exceeds available sustainable supplies in the short term and the company forecasts significant household and non-household growth. The EA has very significant concerns about the high level of risk in the company's preferred plan. The plan relies on demand management, drought measures, and supply	If the company does not take action to improve the plan there is a significant risk of damage to the environment and to security of supply. If the company's preferred programme of demand management and supply options cannot be delivered, and there are no alternatives available, there is a risk of supply deficits affecting both security of supplies to existing and new customers, and a risk of abstraction increasing at sources of supply that could cause deterioration in the status of water bodies.	The company must demonstrate that its plan safeguards the environment and has sufficient supplies to meet demand and support growth in its supply area across the planning period. It is the company's responsibility to produce a plan that provides a secure supply of water expected by customers and to protect the environment. The plan must deliver statutory environmental obligations, including preventing deterioration in the status of water bodies, reflect local growth ambitions and plan to meet the additional needs of new businesses and households. The EA expect substantial	We have reviewed an exhaustive list of options available to ensure that we have sufficient supply and the environment is protected. Our original list of options number over 130, and a robust screening process has reduced this to our current list of feasible options, which the Environment Agency inputted to. Our plan includes no material increase to demand from 2025 through the rapid implementation of demand management measures, for which we have taken a realistic view of the savings achievable and delivery, incorporating risk and

	options that the company has not demonstrated it can deliver effectively and that carry a high risk of failure. The plan has no credible alternative solutions if the preferred options cannot be delivered and does not demonstrate it can adequately manage the risk of abstraction causing deterioration in the status of water bodies. The company needs to make significant improvements to the plan to demonstrate it can meet demand and support planned growth whilst maintaining abstraction to levels that will not risk causing deterioration in the status of water bodies.		improvements to the draft plan and the recommendations in this report to be implemented. This includes providing confidence that the preferred plan can be delivered and accelerating all measures required to manage the risk of causing deterioration in the status of water bodies. The company should develop alternative options to manage the risk to security of supply and the environment if its preferred plan cannot be delivered and ensure these are progressed so that are available as soon as they are needed.	uncertainty. The growth forecasts that we have applied include those aspirations up to 2040 for growth identified in the local emerging plan. The measures that we have proposed are implemented as soon as practicable, in accordance with producing a best value plan. We are proposing IROPI dispensation for 2 years in 2030-32 as a result of licence reductions proposed to prevent deterioration. The reductions that we are applying are 18 Ml/d or 20% more than we had expected for WRMP19; this step change and the availability and lead time of options is the primary reason for the 2 year IROPI case. There are no alternative , best value options that could be delivered to remove the need for the IROPI case which is c.10Ml/d in a dry year planning scenario.

Recommendation 2: Demonstrate that the risk of environmental deterioration in status of water bodies can be managed, including maintaining abstraction to historic limits at sensitive sites.				
R2.1: Your role in achieving sustainable abstraction.	The EA is highly concerned that the plan does not demonstrate it will meet statutory obligations under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 to prevent the risk of deterioration in the status of waterbodies. The company has consistently reported demand above that forecast in its current and previous WRMPs and there is evidence of a sustained increase in abstraction at most of its groundwater sources. The plan also forecasts that demand will continue to rise in the short term (to 2030) and this risks further increases in abstraction. This poses a significant risk to the environment	There is a significant risk of causing deterioration in the status of water bodies if the company increases abstraction from sensitive groundwater sources. This risks the plan breaching its statutory environmental obligations under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017. If the company is unable to demonstrate that it can manage the risk of causing deterioration in the status of water bodies, the Environment Agency may need to use its regulatory powers to make changes to the company's abstraction licences to ensure the environment is protected. This may result in supply-demand deficits and the company being unable to meet demand and support growth.	The company should demonstrate it has a credible plan to manage the risk causing deterioration in the status of water bodies in each water body affected by its abstractions. The company should include a new annex to the plan setting out in detail the actions it will take at each source of supply to prevent environmental impacts. This should include how the company's demand and supply measures will help to manage abstraction to within sustainable limits and set out how alternative options will be used if the preferred plan cannot be delivered or does not deliver the assumed supply and demand benefits. The plan should set out further measures needed to avoid, reduce or mitigate the risk causing deterioration in the status of water bodies,	Our plan sets out how we will manage the risk of deterioration by applying licence caps as soon as we are able to whilst maintain our duty to supply. This includes rapid demand management that offsets all planned growth in AMP8 and implementation of supply options as soon as they become available. We are working closely with the EA and local planners to ensure that current abstractions are assessed for the impact that they may have on individual waterbodies, and collectively propose mitigation measures to manage deterioration, targeted at the most sensitive sites. Our plan shows that demand will not materially increase during a dry year, and that we are able to apply

	and has resulted in the EA having to object to new major developments in the company's supply area unless they can demonstrate increased water demand will not risk deterioration in the status of water bodies. There is evidence that water bodies in the company's supply area including chalk streams are being affected by the abstraction of groundwater which the company is using to supply existing homes and businesses. Investigations confirm that ecology is sensitive to flow and abstraction. Several water bodies are failing to support good ecological status/potential due to abstraction, for example the river Granta, and that there is a significant risk of deterioration in ecology occurring if abstraction increases.		including catchment-based solutions. It should also set out how the company will monitor and report the success of its preferred demand and supply measures and act to change its actions if they are not successful.	the required licence caps to prevent deterioration by 2032. Our separate WINEP proposals include a significant programme of chalk steam restoration where abstraction pressures can be offset by reducing other pressures in a quicker timescale. We intend to closely monitor implementation of our preferred plan to ensure it is successfully delivered, and our proposals include allowances for uncertainties. We will report on our performance through annual WRMP reviews and we include more detail on how we propose to monitor and report our demand management progress in chapter 11.3 of the revised draft WRMP. Our abstractions will be reduced and managed to

	The company should set out in its plan how it will manage the risk of causing deterioration in the status of waterbodies at each source where abstraction has been linked to affecting the ecology of water bodies and wetland sites. The company should set out all measures required to keep abstraction to within sustainable limits and to avoid, reduce and mitigate the risk of environmental impacts.			ensure that all the licence caps are met by 2032, and that there are no material increases to abstraction from 2025. We have already implemented protection to flows at times of stress in the Granta, in agreement with the EA to support the needs of the ecology. We are unaware if other abstractors may not have the same restrictions applicable to licences.
Recommendation 3: Accelerate and develop preferred supply options to provide confidence they can be delivered and will be available to mitigate the risks to security of supply and the environment.				
R3.1: The plan does not demonstrate why supply options cannot be developed more quickly.	The company has identified the need to develop new supply schemes at pace or it risks failing to meet demand, support growth, and deliver its statutory environmental obligations. The company has submitted some supply schemes to be	Without timely and sufficient supply options the company cannot manage known risks, ensure security of supply, and reduce the risk of causing deterioration in the status of water bodies. If any of the company's schemes are accelerated, the current representation of these schemes in the plan	The company should: • accelerate its supply options, so that the risks of causing deterioration in the status of water bodies are avoided, or reduced, and any potential impacts mitigated • bring forward its existing options where these form part of a best value plan or are needed as alternatives to manage risks to security of	Our supply options are all new for WRMP requiring significant planning, infrastructure and investment. Our preferred plan has selected all best value options as soon as they are available, and we forecast the earliest available date with the most recent knowledge

	considered for acceleration in the remainder of AMP7. An announcement on the outcome of this acceleration process is expected in March. The EA is however concerned that the company is not accelerating more of its preferred options and has not justified why work cannot start now on detailed feasibility and planning, so they are 'shovel ready' once funding is secured for their delivery. The EA expects all feasible supply measures to be delivered as quickly as possible where there is a risk to security of supply, or where the company has identified a risk of causing deterioration in the status of water bodies.	will not be fully accurate and will need to be updated.	supply and the environment in its preferred programme • ensure its plan takes account of any decisions on its scheme acceleration proposals where applicable • actively work with Anglian Water and WRE to progress the Fens Strategic Resource Option (SRO) and confirm the feasibility and affordability of the option and provide regulators with confidence that this provides a low regret investment for customers. Until these actions are completed, the EA is unable to assess if the plan and preferred solutions present a best value outcome for customers and stakeholders and can demonstrate the risk of environmental deterioration occurring can be managed effectively.	of the scheme requirements. Through the Defra accelerated spend proposal we submitted a bid to accelerate the Grafham Transfer. However this was rejected following concerns from the Environment Agency regarding the reliance of this water on a drought permit. As a result, we have worked with Anglian Water and Affinity Water to determine another more sustainable source of water to enable this transfer; however this causes a delay to the availability as it relies on the completion of the Minworth and GUC SRO schemes which is forecasted to be 2032. It does however deliver a larger volume of water. We continue to work closely with Anglian Water and WRE to

				progress the Fens Reservoir SRO, which we are fully committed to. The feasibility of the scheme has been through a robust process of modelling and simulating options within the region, followed by extensive site selection and best value assessments. This work is all available through WRE, of which the EA are a key stakeholder.
R3.2: Improve the level of detail presented for preferred supply options and set out a full programme of work required to demonstrate they can be delivered as soon as possible.	The level of detail presented in the plan for the preferred supply options is limited. The company's preferred supply options are not well developed, and individual options may not be feasible or yield the assumed supply benefits.	The lack of progress on developing preferred options means customers and stakeholders cannot be confident that these are feasible or will deliver the assumed benefits. Any delay in delivering the preferred supply options poses a risk to security supplies and the environment.	The company should improve the level of detail presented for its preferred supply options by: • setting out a detailed programme of work to urgently progress development of its preferred supply options conducting detailed deliverability appraisals of its options to better understand technologies, planning timescales and constructability.	We have provided additional detail on this in the revised draft WRMP which will be submitted on September 29th 2023.

R3.3: Provide utilisation details of the proposed Anglian Water transfer and confirm that Cambridge Water can utilise all available water as soon as the scheme is completed.	The proposed transfer of water from Anglian Water is a vital resource option needed to provide security of supply in the short to medium term and help the company manage the risk of causing deterioration in the status of water bodies. Despite this importance, the plan does not provide detailed information on the feasibility and utilisation of the option. The EA has significant concerns that the company may not be able to utilise all available water as soon as the scheme is completed. It is likely that investment in a new treatment works is required to ensure the company can make full use of the transfer. The treatment works is an enabling option and will reduce the risk of water quality changes and the	The lack of detail provided in the plan means customers and stakeholders lack confidence in the option's feasibility, deliverability, utilisation, and the timescales in which will be delivered. The company may not be able to utilise all available water if there are delays to investment in a new treatment works. Any delay in delivery, or not being able to fully utilise the option poses a major risk to security supplies and the environment.	The company should: • provide detailed information on planning and construction timescales of this option and provide confidence it will be delivered as planned • provide utilisation details of the proposed transfer and confirm that it can use all available water as soon as the scheme is completed.	We are confident this can be delivered as planned and we continue to work closely with Anglian Water on the programme. The strategic pipeline providing the transfer will be available from 2030, therefore the Grafham resource can be freed up by Affinity when the GUC option is developed and available in 2032. We are proposing to undertake all of the capital delivery works we need to enable this in AMP8 so that we are also ready for 2030. We intend to fully utilise the available DO from the Grafham option, now up to 26Ml/d, which will allow us to make all required licence reductions to avoid any risk of deterioration. Our options include all the required additional treatment for enabling acceptable water quality

	potential impact on customers from mixing surface and groundwater. However, the plan does not confirm if this is needed and how the company will progress work to confirm if it is required and deliver the option in a timely way. As this key piece of infrastructure may take several years to build, the company should accelerate any work required so there is greater confidence it can be delivered as quickly as possible and enable full use of the proposed import.			for the transfer to be in place by 2032. There is no need to further accelerate the constructions works which will be completed in AMP8 ready for the water to be available in 2032 in AMP9.
Recommendation 4: Develop a fully costed and deliverable alternative plan or pathway for if important supply and demand options are not delivered.				
R4.1: Lack of alternative options.	The company has not set out a 'Plan B' to show what actions it will take to protect the environment and public water supply should supply options (Anglian Water transfer and Fens reservoir SRO) be delayed or not delivered	Without sufficient supply options the company cannot manage known risks, ensure security of supply, and reduce the risk of causing deterioration in the status of water bodies. If the company's preferred	The plan should: • set out available alternative options to provide secure supplies, including alternatives to the Anglian Water transfer and Fens reservoir options	Due to changes in the transfer option availability, we have included an adaptive pathway which would be a least preferable alternative as it would leave residual risk to the environment. This is

	and/or if the preferred demand management options fail to deliver the required water savings. Given the level of risk in the company's preferred programme, it is vital that the company works with neighbouring water companies and WRE to develop alternative supply options. The company should be progressing feasibility work now on potential alternative supply-side options so that they are ready to be implemented if the demand-side options fail to deliver expected savings or preferred supply options cannot be progressed. WRE's draft regional plan and Anglian Water's draft WRMP have identified that desalination is the	supply schemes cannot be delivered, or if savings from demand management measures are less forecast, the company is very likely to have a supply- demand deficit. This risks the company increasing abstraction at groundwater sources to meet demand that could cause deterioration in the status of water bodies and/or that it is unable to meet demand and support growth.	• provide a detailed programme of how it will progress these alternative options so that they are 'shovel ready' as soon as possible work with Anglian Water and WRE to confirm which option(s) are most likely to be progressed as alternatives and how these can help deliver a best value outcome for customers. This should include consideration of the size of the Lincolnshire Reservoir option and if a larger reservoir can support increased transfers to Cambridge Water and if desalination should be a preferred option • work with WRE and WRSE to explore if WRSE / Affinity Water can support a transfer (both as a short-term and long-term solution) to the company through the delivery of alternative SRO and other options.	outlined in section 11.8 of the revised draft WRMP. The detailed programme for Fens is available through WRE and the RAPID delivery team for the SRO – it is not appropriate to fully replicate this detail in our plan which utilises the supply immediately once available in 2036 as a transfer. Use of the SLR reservoir is not appropriate for Cambridge as there would be downstream storage implications and limitations on the amount of water that can be used. WRE has modelled the least regret, best value options for the region and demand centres, and Fens is selected for Cambridge in all scenarios. De-salination is considered a less preferred alternative due to the cost and additional environmental

	most likely alternative option if the Fens reservoir cannot be delivered, but both plans lack detailed specific proposals of when, where, and how big the option(s) will be. Cambridge Water, Anglian Water and WRE should set out detailed proposals for feasible alternative options(s) to the Fens reservoir and to be ready to deliver these when and if they are needed. Cambridge Water's draft plan has not clearly set out if Affinity Water and WRSE can support a transfer to the company as an alternative to the Fens reservoir and proposed Anglian Water transfer. The company has identified bulk transfers from			risk and is explored/included in the regional plans for a high growth, high Environmental destination scenario. We have explored other feasible options outlines in our plan which get rejected on best value basis. We have explored the use of different transfer options supported by regional SROs, however these are either fully committed elsewhere in a better value situation or are unsuitable in infrastructure terms and location or timing of need. This includes the use of a range of GUC options, which are now included as a preference for supporting the Grafham transfer from AW to Cambridge which is a good example of a regional scheme and companies working

	neighbouring water companies in its unconstrained options list, but these were rejected. The process of and reasons for rejecting inter-regional/company transfers is difficult to follow and understand. Affinity Water is pursuing its own options, including the Grand Union Canal (GUC) transfer SRO that could be available by 2035. This could generate a surplus for export, or enable resources currently exported from Anglian Water to Affinity Water to be re-deployed to support Cambridge Water.			together to enable the best value option.
Recommendation 5: Demonstrate that the proposed use of drought measures will be effective in helping manage the risk of environmental deterioration in status of water bodies and will help maintain security of supplies.				
R5.1: Lack confidence that proposed drought	The draft plan includes the benefit of demand savings from its level of	Managing demand in periods of dry weather is an essential part of helping	The company should: • complete work to revise	We are currently reviewing our drought triggers and levels of

measures will effectively meet demand and manage the risk of environmental deterioration occurring.	service drought measures and includes these as options to help maintain a positive supply-demand balance. The assumed demand savings are an essential part of the company's plan to avoid deficits ahead of the proposed Anglian Water transfer and Fens reservoir SRO. However, the EA lack confidence that the company can effectively apply its drought measures to manage demand and the risk of causing deterioration in the status of water bodies. The company's current levels of service are high compared to neighbouring companies, and the company has benefited from having access to spare capacity (headroom) in its abstraction licences to meet increased demand, including in dry weather.	to limit increases in abstraction and managing the risk of causing deterioration in the status of water bodies. Until the company can show that is can apply its drought measures to help manage abstraction to within sustainable limits, the EA cannot be confident it can meet current demand and forecast growth without risking causing deterioration in the status of water bodies. This presents an unacceptable risk to the environment and security of supply.	its drought triggers to demonstrate how it will apply drought measures to effectively manage abstraction to help manage the risk of causing deterioration in the status of water bodies. This should include worked examples showing how demand will be reduced in dry weather and how this will be effective in managing abstraction at sensitive sites • set out how any required changes to drought triggers affect the company's levels of service and consider if this constitutes a material change to its plan that requires further consultation with customers.	service to determine if changes are applicable. This is being undertaken in parallel with the WRMP and is not expected to materially change the WRMP, and requires sufficient consultation with stakeholders. We are committed to engaging with the EA and other key stakeholders as we progress through this work. Our current drought plan has been approved by Defra. It includes reductions to abstractions as yields recede, and use of peak available licences as per EA proposals for a rolling 6 year licence. Our assumed demand savings are equivalent to those seen for recent TUBs implemented elsewhere and those seen historically with appeals for restraint and

	However, increased abstraction and use of this headroom risks causing deterioration in the status of water bodies and the company can no longer rely on licence capacity to meet increasing demand and must demonstrate it can maintain abstraction to within sustainable limits. To maintain abstraction to within sustainable limits, the Environment Agency believes the company will need to apply its level of service drought measures more frequently and that this could affect its current levels of service. The company should update its drought triggers to improve confidence that its drought measures will be effective in managing demand and the risk of causing deterioration in the status of water bodies.			TUBs in our WRZ. The values included in our plan directly reflect our current drought plan.

	The company states (dWRMP, Table 7, p39) that most of its customers are likely to accept a lower level of service and support bringing in temporary restrictions every time there is a long period of dry weather. The company commits to revising its drought triggers and reviewing how this will affect its levels of service, but the EA lacks confidence that the company can deliver the assumed demand savings.			
Recommendation 6: Accelerate universal smart metering, explain the assumption of zero benefit and clarify individual components of the metering strategy.				
R6.1: Acceleration of smart metering.	The company proposes a rollout of universal smart metering by 2035, which may be accelerated to 2033 depending on the outcome of the Defra accelerate spend initiative. Smart metering is key enabler in delivering	Smart metering is key enabler in delivering other demand management options and these are crucial in avoiding deficits and managing the risk of causing deterioration in the status of water bodies. Slower delivery of demand management measures means more risk of the	The company should: • take account of the recent correspondence from Minister Pow (15th March 2023) and accelerate its rollout of universal smart metering or provide detailed justification and compelling evidence of why it cannot be	We submitted a bid to the Defra accelerated spend process in order to accelerate our household metering programme. We were successful in this bid and we detail in the revised draft WRMP how we plan to accelerate a proportion of our metering programme. However, we are behind

	other demand management options and these are crucial in avoiding deficits and preventing the risk of deterioration. It is therefore unclear why the company has decided to delay delivery of universal smart metering to 2035 rather than 2030. Appendix K sets out Smart Network Scenarios which assess the benefit of the company implementing smart metering by 2030, 2035 or not at all. The costs and benefits from these scenarios are not clearly set out in the main plan and it is difficult to understand how the company has reached its decision on the timing of smart meter rollout. In comparison to other WRE companies, the company has the slowest rollout of universal	company increasing abstraction at groundwater sources to meet demand and this risks causing unacceptable impacts to the environment and/or that it is unable to meet demand and support growth.	completed by 2030 • set out how it will deliver universal smart metering by 2030 for example, deliver smart metering to customers without a meter first, then move onto switching customers from ordinary to smart • clearly set out, in the main plan, the costs and benefits of accelerating smart metering and how it has reached its decision on the timing of smart meter rollout • explore working with WRE companies to develop economy of scale and experience • submit challenging performance commitments as part of the price review process.	in our current AMP7 metering delivery programme due to the impact of Covid and therefore we need to ensure we catch up this programme before we can accelerate our universal metering programme. We outline our proposal for this in the revised draft WRMP. As part of our plan we assessed delivering universal metering by 2030. Our work with our supply chain and through engagement with companies such as Anglian Water and Thames Water that have undertaken ambitious metering delivery campaigns in AMP7 have highlighted that delivery of our entire universal metering campaign in 5 years is high risk. It should also be noted that we already have 73% metering penetration in the area and whilst we

	metering. Anglian Water commits to full smart metering by 2030 and Essex and Suffolk Water has proposed accelerating full smart metering by 2030 in its Suffolk resource zones. The company has not explored working with WRE companies to develop economy of scale and experience.			are targeting 100% penetration, this number is unlikely due to issues such as shared services, complex apartment blocks etc. Delivery of 100% would provide a benefit of circa 1.4 Ml/d. Delivery in 5 years instead of 10 years would therefore provide an additional 0.7 Ml/d benefit in AMP8 and we believe this small benefit is outweighed by the high risk of delivery and higher costs. Our demand management proposals mitigate all of the planned growth in AMP8 and the gap created by the licence cap would not be notably impacted by 0.7 Ml/d. In the revised draft WRMP we detail our prioritisation for rollout in section 11.1. This is linked to our PCD performance commitment in the price review.

R6.2: Smart metering delivers zero benefit.	The company assumes that smart metering (in isolation of other related actions) delivers zero benefit in terms of customer water savings. This assumption does not appear to be correct based on evidence of smart meter trials and delivery elsewhere in the WRE region and country. There is no data, evidence, or explanation to support and justify this assumption. The company's smart metering assumption also means there is a lack of clarity around how future smart metering forms part of the preferred best value plan.	The company may be underestimating the benefits of smart metering and its approach is inconsistent with other water companies. Smart metering is not adequately considered in the company's options appraisal and best value planning.	The company should: • re-consider or change its the assumption that smart metering delivers zero benefit • provide justification why smart metering delivers zero benefit. The justification should include the data and evidence used to support the approach taken • take smart metering options fully through its options appraisal and best value planning • work with other water companies to reassess the benefits of smart metering, for example Anglian Water, who are realising the direct benefits of smart metering.	We have taken this feedback on board and reassessed the benefits delivered by metering. We have engaged with Anglian Water and particularly Thames Water who have extensive and detailed information on the benefits recognised. As a result, we have updated our assumptions and included a 13% benefit per household where a meter is newly fitted. Section 11.1 of the revised draft plan details the different metering options reviewed and how we derived our preferred plan.
R6.3: Planned programme of metering.	The company does not clearly set out its future metering programme. The main plan and	The lack of information and clarity means customers and stakeholders cannot be confident that these options are feasible or will	The company should clearly set out, in its plan, appendices and data tables, detailed and substantial evidence about its metering programme for:	We have updated section 11.1 of the revised draft WRMP to include this detail. We are proposing a universal metering

	Appendix M lack detail and clarity on the programme for: • optant metering • change of occupier metering • selective metering • compulsory metering and metering street-by-street with comparative billing	deliver the assumed benefits. If savings from demand management measures are less than forecast, the company is very likely to have a supply- demand deficit. This risks the company increasing abstraction at groundwater sources to meet demand and this could cause unacceptable environmental impacts and/or that it is unable to meet demand and support growth.	• optant metering • change of occupier metering • selective metering • compulsory • and metering street-by-street with comparative billing The metering programme should be specific to the company and include clear timescales.	programme, delivered by the end of AMP9. As part of this we assume the current rate of optants which will be delivered at a higher cost than the universal metering programme as this work does not benefit from the economies of scale or geographical planning.
Recommendation 7: Clarify the ambition to reduce non-household demand and justify the provision of new non-household supplies that are not sustainable.				
R7.1: Inconsistent ambition to reduce non-household.	The ambition to reduce non-household demand is inconsistent between the company's draft plan and data tables. The company states in its plan that it will reduce non-household consumption by 9%. However, in its data tables the company forecast a substantial	The discrepancy between the plan and the data tables is confusing, potentially misleading and reduces stakeholder and customer confidence in the plan. As per government expectations, all companies should assist non-household users to sustainably reduce their water use.	The company should: • clarify if it plans to reduce non-household consumption by 2037/38 and demonstrate how this contributes to the water demand target	We have assessed several scenarios for the reduction in NHH consumption relating to the 9% Environment Act target for 2038. Our forecasted NHH consumption increases by 55% in 2038 from the 19/20 baseline level, and as a result we are unable to identify a viable pathway to reduce NHH

	(5.5%) increase in non-household consumption by 2037/38 from 2019/20 levels. The company states in its plan it will reduce non-household consumption by 9% and a saving of 4Ml/d could be achieved through fitting Enhanced Meter Technology to all existing non-household customers. Although the ambition is welcomed, the plan lacks specific detail and evidence on the planned delivery of measures. It is particularly important the company set out how it will reduce demand in the biotechnology, service and technology sectors as these are the main drivers of increasing on-household demand.	Reducing non-household demand is an important part in reducing overall water demand and thereby helping to maintain customer supplies and protect the environment.	• rectify the discrepancies between the plan narrative and data tables • provide specific plans, in collaboration with retailers, to reduce non-household consumption. This should include detailed and substantial evidence about its approach to fitting Enhanced Meter	consumption by 9% from this position by 2038 – this would mean we have a NHH demand of 20.6 Ml/d compared to the forecasted 35.15 Ml/d. As such, we have explored other scenarios such as delivering the equivalent of 9% of that 19/20 position (i.e. 2 Ml/d) or delivering 9% reduction in the forecasted 2038 position (i.e. 3.16 Ml/d). We have chosen to adopt the latter scenario and describe this in detail in section 11.1 of the revised draft WRMP. We have revised and aligned the plan and tables which will be submitted alongside the revised draft WRMP. In section 11.1 of the revised draft WRMP we outline our plans for fitting enhanced meter technology across our non-household population, as well as our plan to undertake non-

			Technology, reducing leakage and water audits for business, including the timescales. • set out how it specifically plans to engage with and reduce demand in the bio- technology, service and technology sectors.	household water audits, continuous flow monitoring and leakage support. Through the development of the revised draft WRMP we have engaged with planners and various developers to better understand future plans and needs and to influence build plans and designs. We are working closely with Defra, DHLUC and the EA to ensure the non-household growth ambition for Cambridge can be delivered sustainability, including retrofitting and offsetting through collaboration and third party and Government funding and delivery.
R7.2: Provision of new non-household water demands.	Neighbouring water companies in WRE who face similar water resource challenges propose either a moratorium on new non-household demand	Continuing to supply all new non- household growth does not reflect the risks and issues the company faces and is inconsistent with the approach taken by	The company should: • justify why it is appropriate to supply new non-household demand, (where the water is used for non-	The nature of NHH development in our area is such that it is difficult to differentiate between the domestic use and other use. We review

	(where the water is used for non-domestic purposes) or take evidence led risk- based decisions whether to grant or deny any new non-household requests. Despite the risks and issues set out in Recommendation 1 the company continues its plans to provide water for all new non-household demands. The EA has concerns that the company may supply non-household demand with unsustainable sources of supply, exacerbating its own deficits and risking causing deterioration in the status of water bodies. The company has not justified why it plans to supply new non-household demand, (where the water is used for non-domestic	neighbouring water companies in WRE. Using unsustainable sources of supply to provide for all new non-household demand puts the environment and security of supply at risk.	domestic purposes) with water that is not sustainable.	NHH connection requests on an individual basis so that we can identify and significant proposed non domestic use and discuss this. We have assessed a a scenario of no additional NHH use from 2024; however the marginal savings in addition to our water efficiency measures for NHH would not bridge the gap required for IROPI in 2030-32. In addition, through our ongoing collaboration with Defra, DHLUC, Greater Cambridge Shared Planning and the EA, we are clear on the Government ambitions for the region as outlined in the announcement by Michael Gove and the Prime Minister on 23rd July 2023 (see link), and therefore do not believe that planning for no additional non-household growth is a position that will be acceptable to all parties.

	purposes) with water that is not sustainable.			
R7.3: Non-household demand forecast.	It is unclear whether the company consulted or engaged with retailers of water to non-household customers in developing future non-household demand forecast. This is a regulatory expectation as set out in guidance.	The lack of engagement with retailers specifically when developing the non-household demand forecast reduces confidence in the company's non-household forecasts.	The company should consult and engage with retailers of water to non-household customers to improve its non-household demand forecasts.	Through the development of our non-household forecasts, we have worked with Artesia and retailers to assess this. In addition, we have undertaken extensive engagement with Greater Cambridge Shared Planning to understand clearly the future plans, the proposed sectors and scale of the development to ensure that our plans are as accurate as possible. We have shared our non-household forecasts with Greater Cambridge Shared Planning who support our forecasts as being aligned to their proposals for both development and employment. These have been updated accordingly for the revised draft WRMP.

R7.4: No dry year allowance made for non-household demand.	Appendix C2 identifies that agriculture (and other weather dependent industries) make up 18% of the proportion of properties in the industry group. However, the company does not apply an allowance for a dry year to non-household demand and assumes that dry year conditions do not significantly affect commercial water use. There is no data, evidence, or explanation to support and justify this approach.	The company may be underestimating how a dry year impacts on non-household demand. The lack of appropriate data, evidence, and explanation, in support of the company's approach, reduces confidence in the plan.	The company should apply an allowance for a dry year to non- household demand or provide justification why this is not appropriate with specific reference to agriculture (and other weather dependant industries). The justification should include the data and evidence used to support the approach taken.	We have included additional narrative on this in the revised draft WRMP. Our approach to this is aligned to that used by other water companies through our engagement with liaison with Artesia. In addition, our demand forecasts are built up using historic data to understand potential fluctuations in non-household demand and we are confident this is captured accordingly.
Recommendation 8: Provide confidence the plan will achieve assumed proposed demand reductions and the actions needed to keep demand savings on track.				
R8.1: Inconsistent ambition to reduce leakage and PCC.	The ambition to reduce leakage and PCC is inconsistent between the company's draft plan and data tables. In the plan, the company aims to achieve a 50% reduction in leakage (from	The discrepancies between the plan and the data tables are confusing, potentially misleading and reduce stakeholder and customer confidence in the plan.	The company should: • clarify its plans to reduce leakage and PCC by 2050 • rectify the discrepancies between the plan narrative and data tables.	In the revised draft WRMP, we include more detail on our leakage plans and our PCC plan in section 11.1. We propose to reduce leakage by 50% by 2040 in recognition of the water resource challenges we are facing and customer feedback

	2017/18 levels) by 2050. However, in its data tables the company forecast a reduction of 63%. In the plan, the company aims to achieve a PCC of 110 l/h/d by 2050. However, in its data tables the company forecast a PCC of 99 l/h/d.			through our engagement work on the priority of leakage. We are also planning to achieve the Environment Act targets for PCC, including the interim target in 2038, which will see dry year PCC of 110 l/h/d by 2050. We have updated the data tables to ensure these are correctly reflected and these will be submitted along with the revised draft WRMP.
R8.2: Delivery of planned demand reductions.	The company's planned demand reductions are welcomed, however, given the risks of non-delivery and reliance on demand management there is insufficient detail and evidence on the delivery of the exact measures planned. There are general definitions proposed demand management options in Appendix M, however these are high level and lack specific	The EA do not have confidence that the company will deliver its proposed demand management options, due to the absence of detailed delivery information and based on past performance. This has the potential to put public water supply and the environment at risk. It is important that the company meet customer preference, in the plan it states "customers have	The company should: • for each option identified in Appendix M provide detailed and substantial evidence about the delivery of the actions, this should be specific to the company. For example, this should be similar to the detailed demand management water efficiency plan provided in the company's response to 2022 Annual Review • incorporate more	We have updated the revised draft WRMP to include detail on all of the feasible demand management options. We have also included more information regarding the proposed delivery of demand management actions in section 11.3 of the revised draft plan. We have also included more information on the scenario testing we have undertaken on the preferred plan in section 11.7 of the revised draft

	detail on delivery and timescales. Section 11 of the main plan sets out the preferred portfolio, but there is insufficient narrative to support the planned reductions. The WRMP24 baseline demand forecast assumes achievement of WRMP19 commitments. The EA has concerns that currently PCC is above forecast, and metering is below forecast (based on Annual Review 2022). The EA lacks confidence that assumed reductions will be delivered due to the company's past performance in delivering its WRMP19 demand reductions. The company has reported PCC (and distribution input) as above forecast in AMP7 and this may continue into AMP8. The company state that	stated that they want us to do more to educate customers in their water usage and the ways to save water. As well, they want us to share more information to all of our customers of why this is so important; so to share more on our water stress status, the future challenges and the link between demand and the environment."	detail into the main plan (Section 11), linking to Appendix M and better representing the delivery of the preferred portfolio • demonstrate how it plans to meet customer preference as stated in its plan and use all available channels to target its customers, for example, innovative billing, mobile applications etc • provide assurance of option delivery and provide evidence where any risks exist. This should include that some of its baseline assumptions may not be fulfilled • demonstrate that its targets are achievable, being planned for and that non-delivery does not present a risk to security of supply.	WRMP. These scenarios relate to the Ofwat common reference scenarios, and one particular scenario identifies the impact, and necessary actions through adaptive planning, should our demand management only be 50% effective. We have also included uncertainty around delivery in our target headroom calculations for the revised draft plan, known as component D4.

	"per capita consumption (PCC) reductions in AMP7 remain a challenge following the Covid-19 pandemic and that whilst levels of household usage are reducing, we are not yet seeing pre-Covid levels despite extensive water efficiency work above our proposed WRMP19 programme."			
R8.3: Uncertainty associated with demand management options.	Despite the company relying heavily on options to reduce demand it does not include any uncertainty around delivery of its demand management measures in its target headroom assessment.	Target headroom is under-estimated due to the exclusion of uncertainty in delivery of demand-side options (headroom component D4). This means the supply demand balance is not appropriately represented.	The company should include an assessment for headroom component D4 (uncertainty associated with demand-side options) in its plan. This should include uncertainty in both its own demand-side options and uncertainty associated with Government water efficiency labelling of domestic goods.	We have included component D4 in our target headroom calculation for the revised draft plan and this is represented in the updated data tables that will be submitted alongside the revised draft WRMP.
R8.4: Baseline water efficiency activity.	The company states that its baseline demand forecast includes existing demand management policies. However, the plan does not clearly describe, in	It is unclear how existing water efficiency activity is factored into the baseline demand forecast.	The company should include detailed information about its (and retailers) baseline water efficiency activities and how these are incorporated into the baseline demand forecast.	We have included additional information outlining our baseline water efficiency activities and how these are incorporated into our planning in section 11.1.

	detail, the existing baseline water efficiency activity undertaken by both the company and by retailers operating in its area. There is limited information about how these activities are incorporated into the baseline demand forecast.			
Recommendation 9: Ensure there is clear monitoring of the demand management programme.				
R9.1: Monitoring the water efficiency programme.	Successful demand management is a key strategy to maintain the company's supply demand balance in the short term. However, there is insufficient information on how the company plans to monitor its demand management programme and if any key decision points are identified and alternative options proposed, should the delivery of the programme be slower than expected.	The lack of information on monitoring of the demand management programme reduces confidence in the reality of achieving the water efficiency programme forecasted savings. To meet government expectations and the dWRMP24 demand management ambition it is essential that the company continuously monitors and reacts to delivery progress.	The company should provide a clear water efficiency monitoring programme throughout the planning period with particular focus on the first 10 years. This should include the specific actions the company will take to monitor its planned: • leakage reduction • PCC reduction • non-household demand reduction • metering rollout • any other measures to reduce demand. The company should set out the actions it plans to take if	Our plan for monitoring and reporting our demand management activities have been updated in section 11.3 ‘Delivery of our demand management proposals’, of our revised draft WMRP. The commentary includes details of an internal ‘Demand management reporting process’ as well as our approach to external reporting to the Environment Agency and Ofwat. This section also includes how we will

			demand options fail to deliver, this should include identifying key decision points and alternative options.	address any delivery which is off track.
Recommendation 10: Complete a full review of source vulnerability and reliability; include investment in making existing supplies more resilient.				
R10.1: Outage is not fully accounted for in the plan and risks security of supply	The company's outage allowance does not reflect operational experience. Although the EA acknowledges that outage fluctuates yearly, outage has consistently been reported as above forecast and this has been repeatedly raised as a concern via the Annual Review process. Recently, prolonged, and significant outage events have contributed to the company requesting local enforcement positions to avoid compromising its licence compliance. The EA is concerned that observed outage events are affecting the reliability of abstraction	The plan does not reflect the true risks to the environment and security of supply posed by outage. Outage events have contributed to the company requesting local enforcement positions which can put the environment at risk.	The company should: • complete a full review of source vulnerability and reliability and use the results to update the outage allowance where necessary • ensure it includes investment to make existing supplies more resilient and work proactively with the EA, DWI and other regulators to highlight supply risks early so everything possible can be done to avoid over-abstraction.	We review our source reliability and outputs annually and have an ongoing programme of maintenance and upgrades to ensure minimised any unplanned downtime. Maintenance does also require outages at sources, and the majority of unplanned outages reported have been as a result of water quality issues outside of our control, and we are committed to ensuring water quality remains compliant. Outturn outage will legitimately vary year from year, and from the outage allowance for WRMP and the unplanned outage performance

	and this is affecting the company's ability to make full use of water resources available to it. The EA is concerned that future unplanned events such as outages or peaks in demand may result in the company increasing abstraction at the risk of the environment.			commitment. Our annual unplanned outage performance is within the expected allowances in the WRMP, and unplanned outage is managed according to the supply needs for SDB and compliance to avoid over abstraction at individual locations. Our outage allowance has been calculated in accordance with the planning guidelines WRMP24 Supplementary Guidance 16032021, EA, and the recommended technical approach in UKWIR report Outage allowances for water resources planning (UKWIR,1995). As per guidance, the data used in our models to determine the allowance is based on recent, relevant, actual outage data collected, this was reviewed for events up to

				2021. Our outage figure is 5.7% through AMP8 rising to 5.8% of distribution input in AMP9 and is reviewed and updated every 5 years with new data. Due to the relative number of sources versus distribution input contributing to supply in an integrated network it is not appropriate to compare our WRZ with other companies – for instance over 40% of our sources have an individual deployable output above the outage allowance. The allowance does not drive investment additional to that required for meeting licence caps to prevent deterioration and is appropriate to allow for planned outages to maintain assets – which would be minimised in a dry year scenario - and

				unplanned outages outside of our control, which could still apply in a dry year scenario. An underestimation of outage allowance, in particular relating to longer term unplanned issues, would increase risks to the security of supply. In the longer term, changes to supplies as options are implemented will change the outage risk profile, and this will be reviewed in subsequent WRMPS, in the meantime it is appropriate to maintain <6% outage allowance, where it is not driving additional supply investment. Outturn outage will legitimately vary year from year, and from the outage allowance for WRMP and the unplanned outage

				performance commitment. Both the performance commitment and WRMP outturn outage figures are derived from the same database of events, however the methodology of event types included and the approach to longer term outage adjustments is different, so they will not match. For example, water quality events are excluded from the Ofwat performance commitment, but not the WRMP allowance. The outage allowance has been relatively consistent following reviews of data since WRMP14, reflecting that the types of events experienced and the resulting average outage are appropriate for our WRZ. We do not consider that there are options available to reduce

				outage due to the proportion of induvial sources that have outputs above the allowance and the risks that a lower figure would introduce into our WRZ system.
Recommendation 11: Revise the strategic environmental assessment (SEA)				
R11.1: Programme appraisal	• The Environmental Report does not consider alternative plans such the least cost programme and a best environment and society programme. Section 6.4 of the Environmental Report states "Cambridge Water tested the draft preferred plan under a range of different planning scenarios…Under all scenarios, there is no change to the preferred plan as it selects all feasible options required to meet the deficit. As a result, there is no available alternative or adaptive plan as part of the WRMP and as such, no further assessment is required." The justification for not	• This issue presents a significant compliance risk. The overall effectiveness of the plan is at risk without an assessment of plan alternatives and a clear understanding of why the preferred plan has been chosen in light of alternatives. Without the assessment of all plan alternatives, the SEA does not comply with the SEA Regulations. There is potential for legal challenge if all alternative options have not been assessed or the plan/SEA cannot	• The company must demonstrate that all plan-based alternatives have been assessed, which includes a least cost and a best environment and society programme and as a minimum. The company should provide more detailed explanation for not selecting reasonable plan alternatives.	In the revised draft WRMP, sections 11.7 and 11.8 detail the work we have done to test our plan against various potential scenarios, aligned to Ofwat's common reference scenarios, the impacts these would have on the plan and the adaptive pathways we would need to take if these came to pass. In addition, section 11.8 addresses adaptive planning that looks at elements such as environmental destination.

	selecting reasonable plan alternatives is weak.	fully justify why the preferred option has been chosen and whether the same outcomes could have been achieved with less harmful alternatives.		
R11.2: In combination effect	• Although briefly described in section 6.5 of the Environmental Report, the company has not clearly identified in combination effects or set out exactly how these will be addressed.	• Without clarity on the presence of in-combination effects the EA cannot be sure all significant effects have been correctly identified.	• The company should add further detail and clarity to section 6.5 and Table 6.5 to ensure that in-combination effects have beenclearly identified and set out exactly how these will be addressed.	In combination effects will be addressed in the revised document as appropriate. as per the in-combination methodology set out in Section 2.5.
R11.3: Monitoring plan	• The company has set out a list of provisional and indicative monitoring proposals in section 7.4 of the Environment Report. However, there isn't a clear commitment to how monitoring will be delivered, implemented and actioned. A final monitoring framework has not yet been prepared, the company states that it will be included within the	• Without clear monitoring commitments there is the potential for implementation of the WRMP to result in unforeseen significant effects that could persist without appropriate intervention.	• The company should: • clearly set out a commitment to how monitoring will be delivered, implemented and actioned prepare a final monitoring framework and include it within the Post Adoption Statement.	The SEA is undertaken at the strategic, plan-level, rather than project level where the requirements for monitoring programmes would be better understood. Project level monitoring would be undertaken.

	Post Adoption Statement.			
R11.4: Cross boundary effects	• Section 4.2.2 of the Environment Report sets out the use of the geographical extent of the operational area covered by the WRMP and a 10km study area from each option has been used. However, the report does not discuss, for example, effects that may occur outside of the Cambridge Water supply area into another adjacent geographical water supply area.	• Without identifying cross boundary effects the EA cannot be certain all significant effects have been correctly identified.	• The company should set out how cross boundary effects have been considered within Section 4.2.2 and ensure this follows through to the methodology and assessment sections to provide certainty that all significant effects have been captured.	Assessments are at strategic, plan-level, rather than project level suitable for comparison of the options and identification of impact. The SEA methodology was undertaken in accordance with the methodology developed at the Scoping Stage which included the statutory consultation process. Cross boundary LSE effects have been assessed.
Recommendation 12: Ensure the plan is legally compliant by adhering to the WRMP Directions.				
R12.1: Direction 3(d) parts (i), (ii), (iii), (iv), (v).	The company has presented some information on its carbon emissions in the plan and data tables. However, the company has not: • completed an assessment of greenhouse	The company is not compliant with Direction 3(d), parts (i), (ii), (iii), (iv), (v). Regulators and stakeholders do not have assurance that the carbon implications of the demand options have been fully considered, or	The company must • complete an assessment of greenhouse gas emissions for its demand management options • explain how its greenhouse gas emissions will contribute individually and collectively to its	We have included the required information in a new section, section 11.11, of the revised draft WRMP. This outlines the impact of our preferred plan on greenhouse gas emissions and also our overall company plan for net zero.

	gas emissions for its demand management options • explained how its greenhouse gas emissions will contribute individually and collectively to its greenhouse gas emissions overall • set out any steps it intends to take to reduce greenhouse gas emissions • described how these steps will support the delivery of any net zero greenhouse gas emissions commitments • described how these steps will support delivery of the UK government's net zero greenhouse gas emissions targets and	that any company level or National net zero commitment will be delivered on time.	greenhouse gas emissions overall • set out any steps it intends to take to reduce greenhouse gas emissions • describe how these steps will support the delivery of any net zero greenhouse gas emissions commitments • describe how these steps will support delivery of the UK government's net zero greenhouse gas emissions targets and commitments.	

	commitments.			
R12.2: Direction 3(g) (iii) and 3(h) (iii).	The company does not comply with part (iii), specifically (bb) of Direction 3(g) and 3(h). The company refers to change of occupier metering in its plan. However, this is inconsistent with the data tables where there is a value of zero across the planning period for final plan metering change of occupancy (table 2c row 34.4). As a result, the company does not comply with part (bb).	The company is not compliant with Direction 3(g) (iii) and 3(h) (iii). The discrepancy between the plan and the data tables is confusing, potentially misleading and reduces stakeholder and customer confidence in the plan.	The company must: • resolve the discrepancy between the plan and the data tables • set out values for change of occupancy metering across the planning period.	We are not implementing a change of occupancy meter policy. Our metering strategy will focus on achieving universal metering through the metering of the remaining c30,000 unmeasured Households with a view to reach as close as effective 100%-meter penetration by 2035. All new builds will continue to be metered in line with current policies. We have updated the data tables to reflect this and these will be submitted alongside the revised draft WRMP.

Area of issue	Issue and evidence	Implications	Information or changes required	Cambridge Water Response
Improvement 1: Explain how the company will reduce greenhouse gas emissions.				
I1.1: No consideration of carbon offsetting, mitigation or innovative carbon options.	Linked to recommendation 11. The company state it aims to achieve net zero carbon by 2030, however it has not considered mitigation opportunities for reducing carbon emissions, or carbon off- setting to for mitigate residual emissions. The company does not consider options to reduce carbon that embrace innovative designs and opportunities to generate or be powered by renewable energy or sequester carbon (or both).	The absence of carbon mitigation, offsetting and/or innovative carbon options does not comply with the WRPG and reduces customer and regulators confidence in the quality of the options selection and decision making.	The company should set out how it plans to offset and mitigate carbon emissions from its proposed options. The company should consider innovative approaches and opportunities to reduce or mitigate carbon emissions in its options appraisal.	We have included our plan for achieving net zero as a company in section 11.11 in the revised draft WRMP. Our supply side options are assessed for carbon cost and this metric is taken into account in our best value analysis.
I1.2: No consideration of uncertainty in carbon assessments.	The company does not consider uncertainty within its carbon assessment, and this has the potential to affect plan outcomes.	The absence of uncertainty within the company's carbon assessment does not comply with the WRPG and reduces customer and regulators confidence in the quality of the company's options selection and decision making. calculation of carbon emissions, any	The company should include an assessment of uncertainty in the assessment of carbon emissions.	We have produced a supporting note on carbon to support the answers to queries under improvement action 2. This has been submitted alongside the SoR. This is Appendix S, and section 5 – Limitations and next

		uncertainty in the data should be considered.		steps – outlines the uncertainties.
Improvement 2: Clearly set out all existing bulk transfers.				
I2.1: Insufficient information on bulk transfers.	The company has referred to several routine bulk transfers and includes values in its data tables. However, there is insufficient information, in the plan, on the details of each transfer and the agreements it has with other water companies to secure these measures. The company has not included information about its supply to a commercial customer outside of the supply area, which is used seasonally.	Providing more detail in the plan will ensure clarity for each agreement, reassurance that transfers are reliable during a dry year and allow customers and stakeholders to clearly identify each bulk transfer agreement.	The company should provide the following information on its bulk transfers: • the name of the donor/receiving company • the volume for each agreement • the agreed limits between supplier and recipient companies and ensure consistent reporting in the relevant plans. This should be described for both normal operation and the chosen design event • variations related to contractual or other arrangements such as decreases in transfers due to drought, responding to operational incidents or pain- share agreements • information about its	We have added a table into section 6.7.2 with these volumes. Bulk supplies provided to NAVs are not included in the table, these are demand driven and sized accordingly. It is not appropriate to include any individual commercial supply in our WRMP.

			supply to a commercial customer.	
Improvement 4: Improve the approach used for accounting for climate change impacts to include further evidence and justification.				
I4.1: Approach to assessing and presenting climate change impacts.	Section 6.6.1 of the main plans state that the climate change methodology is based on a Tier 2 approach, with some elements of Tier 3. However, the Tier used for the climate change assessment is not justified with sufficient detail and it difficult to assess if the company applied the approach for the relevant Tier of analysis. Four future scenarios were used, but there is insufficient information to identify which were chosen and insufficient justification for the choice made. Appendix D, Table 2.2 indicates the level of warming of each scenario in degrees. However, it is unclear which model these levels of warming originate from, which ensembles of	Without the sufficient level of detail, the EA cannot be certain if the approach to assessing and presenting climate change impacts is appropriate. The impacts of climate change on the availability of supplies may be higher, or lower, than presented in the plan.	The company should: • explain and justify with enough detail which Tier of analysis it has used in its assessment and which products were selected • clarify which model the levels of warming originate from, which ensembles of the models were used, and which year they represent • clarify if UKCP18 or UKCP09 data were used. For water resources zones with high vulnerability, the EA guidance indicates the analysis should consider Global or Regional UKCP18 projections, and scenarios that explore the wider range of uncertainty based on evidence from other climate	We have amended section 6.6 in the main plan to provide more information on these areas. UKCP18 data was used for our plan.

	the models were used, and which year they represent. It is unclear if UKCP18 or UKCP09 data were used.		models (for example, UKCP18 probabilistic projections).	
I4.2: Vulnerability Assessment and analysis of UKCP18.	The company has not: • undertaken a Baseline Vulnerability Assessment (BVA) or referenced a BVA from WRMP19 • made comparison between UKCP09 and UKCP18 • contextualized the UKCP18 products provided, namely relevant weather variables (for example, precipitation and temperature) for future time slices and baseline period for all scenarios for the Probabilistic, Regional and Global Projections • screened UKCP18 products with datasets used for WRMP19 to identify datasets to	Without the sufficient level of detail, the EA cannot be certain if the approach to assessing and presenting climate change impacts is appropriate. The impacts of climate change on the availability of supplies may be higher, or lower, than presented in the plan.	The company should: • reference its BVA from WRMP19 where relevant or explain how its vulnerability assessment is an appropriate alternative • make comparison between UKCP09 and UKCP18 • provide contextualization of the UKCP18 products • screen UKCP18 products with datasets used for WRMP19 to identify datasets to enhance analysis.	We have amended section 6.6 in the main plan to include additional relevant details and a comparison of UKCP09 and UKCP18. We have aligned our approach with that taken for WRE by utilising new stochastic weather datasets produced or regional companies to use, and applied a detailed water level change impact resulting from selected UKCP18 climate scenarios. We have expanded on this in the revised draft WRMP.

	enhance analysis.			
Improvement 5: Clarify the use of best value metrics.				
I5.1: Best Value metric weighting.	It is unclear how the Best Value metrics are weighted against other metrics within the Multi Criteria Decision Analysis (MCDA) tool used. Currently the Natural Capital Assessment (NCA) results show costs to the environment, and it is unclear how these results affected the decision-making process.	Without the sufficient level of detail, the EA cannot be certain of the weighting that the NCA results have on the decision- making process.	The company should clarify: • how the Best Value metrics are weighted against other metrics within the MCDA tool used • how the identified costs to the environment and weighting of the NCA results have impacted the decision-making process.	We have included more information on the weighting of the metrics in our revised draft WRMP. This is contained in section 9.3. This highlights how the weighting was determined for each of the components within our best value optimisation. Each of these weightings then leads to a score. ValueStream then looks to deliver a plan that provides the best value i.e. the highest score of all of the metrics combined.
I5.2: Managing uncertainty.	The company did not undertake a sensitivity analysis or consider how to manage uncertainty in its assessment.	As the valuation and assessment of environmental and social impacts is frequently uncertain, the company should consider how to manage this uncertainty in its assessment.	The company should consider how to manage uncertainty in its assessment and undertake a sensitivity analysis.	We have included more detail on the scenario testing, in line with Ofwat's common reference scenarios, that we have undertaken. This is outlined in section 11.7

				of the revised draft WRMP.
I5.3: Intermediate and quantitative steps taken in the assessment.	There is insufficient detail on the intermediate, quantitative steps taken in the assessment, making it difficult to observe if minimum practice was applied. It is unclear whether a screening process was used to decide which ecosystem services would be assessed for each option, or if no impact was expected from the options. In addition, minimum practice was not conducted for Water Purification, as a quantitative assessment was not undertaken.	The lack of presentation of the intermediate steps makes it difficult to determine if the methodology stated in the report was followed. Without the sufficient level of detail, the EA cannot be certain if minimum/best practice was followed.	The company should: • provide detail of the intermediate steps of quantification, such as tCO2e sequestered for each habitat type in each option • clarify whether a screening process was used to decide which ecosystem services would be assessed for each option • complete a quantitative assessment for Water Purification and include the results in the NCA.	The approach to developing the best value metrics and how they are calculated for each option were consulted upon through Water Resources West as the ValueStream tool was scoped, developed and refined. Water Purification is not included as options are focused on water resources and the common view across Water Resources West is that water purification is not a relevant element to the supply side options developed.
Improvement 6: Improve the information provided in both the household and non-household demand forecast technical appendices.				
I6.1: Suggested improvements to the demand forecast technical appendices.	Appendices C1 and C2 (demand forecasting) contain a number of improvements suggested to the company by Artesia. In summary these are:	It is currently unclear whether the company has acted on any of the suggested improvements to demand forecasting or whether it intends to act on them in the future and	The company should provide information in the plan about how it is taking on board the six suggested improvements listed here (and in Appendix C1 and C2). This should include whether the company	We have included an additional section in the revised draft WRMP, section 5.13, which is entitled “Ongoing demand forecast work” and addresses each of

	• consider a micro-component study to improve on the current approach which is based on ageing national datasets. This should include more micro-component data for new build properties • consider the company's resilience to prolonged duration hot, dry events such as summer 2018. This should include the Artesia (2020) project which assessed the magnitude of peak demand over different durations for water companies • update the non-household demand forecasts prior to final plan submission • work with MOSL and retailers to improve the quality of non-household forecasts • improve	if so, when.	agrees with the suggested improvements, if it has already addressed them, and if not, when it plans to address them.	these recommendations and our approach.

	understanding of which Standard Industrial Classification category its non-household customers are allocated to • adopt a more continuous approach to non-household demand forecasting rather than revisiting this only once in every five-year planning cycle.			
Improvement 7: Review resilience of its plan in the context of the 2018 and 2022 drought.				
I7.1: Set out any lessons identified and actions in response to the drought of 2022.	The drought of 2022 challenged the company and was one of the most significant droughts of recent times. The drought saw very high demands and highlighted some areas where resilience needs to be improved. The company should learn from any issues it experienced, such as: • outage	The effectiveness of the plan may be reduced if the company fails to identify risks from conditions which challenge systems or impact the supply demand balance. The company may miss an opportunity to improve the plan if it does not include any new activities undertaken, options considered, or any	The company should: • include an appendix to consider its experiences from 2022 and refer to the updated water resources planning guideline for a list of topics to consider • set out any lessons identified and actions in response to these. This should include changes made to the plan as a result and plans to	We have produced an additional appendix that details our review of the 2022 drought and our lessons learned. This will be submitted alongside our revised draft WRMP.

	events caused by high temperatures • high customer demand, at peak times the company reported an increase of 37% in its distribution input • and the resultant impacts on licence compliance, caused by the above.	measures not currently included in the dWRMP24 modelling and drought plan.	undertake further work.	