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By email

Secretary of State for Environment,
Food & Rural Affairs

18 May 2023

Dear Secretary of State,

## Cambridge Water – draft water resources management plan 2024 consultation response

Long term water resources planning is a key business planning activity and essential for the efficient delivery of resilient water services for customers and protecting and enhancing the water environment. Ofwat has a key role to play in enabling this by funding through the 2024 price review (PR24). Therefore, it is vitally important that we consider whether water companies are identifying the best value approaches and delivering these, to ensure the best outcomes in terms of targeted investment to address challenges. The water resources management planning process is essential to helping Ofwat and water companies get this right. As a statutory consultee, we welcome the opportunity to comment on Cambridge Water's draft water resources management plan (draft WRMP), which it published in February 2023. This letter should be read alongside our letter setting out the wider context of our review and the general approach to the assessment of companies' draft WRMPs.

Cambridge Water supplies water to a population of approximately 351,000 customers across the east of England. Its water resources are planned on the basis of one water resources zone (WRZ). Cambridge Water has identified key challenges in its water resource forecasts that require action to reduce demand or provide additional supplies.

Overall, there are some areas of Cambridge Water's plan that are in line with our expectations for this stage of a draft WRMP. In particular, it delivers on expectations by:

- setting out the drivers behind the water resource challenges faced across the planning horizon;
- setting its ambition towards demand management targets, including leakage and per capita consumption.

However, there are several material areas we have identified from our assessment where the plan does not yet provide sufficient and convincing evidence that it delivers the best value, low regret plan in the interest of customers and the environment. The annex to this letter

provides detail on the specific areas of the company plan that we consider need further work and evidence. In particular, in its final WRMP, Cambridge Water should:

- address points from Ofwat's pre-consultation feedback in 2022, that have not been appropriately or fully addressed in the draft WRMP. This includes providing evidence that explains any significant change to the supply demand balance fully and robustly. This also means providing evidence of board assurance and engagement on the near term risk of licence capping;
- ensure continuity between WRMP19 and WRMP24 and explain the reasons for any step changes. This includes where PR19 targets may also not be met, such as the 2024/25 per capita consumption target, as indicated by the planning tables. The draft plan includes only limited discussion of what has changed, particularly relating to step changes in the supply demand balance components since WRMP19;
- provide sufficient and convincing evidence that the number and range of feasible options is appropriate given the scale of the challenge presented. This is important to justify that the options selected are best value;
- present a single plan with one preferred pathway of solutions and a set of alternative investment options with trigger and decision points;
- demonstrate that the plan is deliverable. Cambridge Water's planning tables show a deficit of 7 megalitres per day (Ml/d) in 2025 rising to 30 Ml/d in 2030, which it proposes to resolve with £243 million of enhancement investment. This scale of investment presents significant delivery risks;
- ensure its cost estimates are sufficiently robust, efficient, appropriately allocated and well evidenced. Cambridge Water should also provide convincing evidence that the preferred options being selected, across all areas of its plan, represent best value;
- provide robust and clear supporting evidence for its data tables. We are concerned about the level of detail and accuracy applied to WRMP tables, which often had incomplete and resubmitted data. This has limited our ability to assess the plan.

We thank Cambridge Water for its hard work and effort in producing a detailed draft WRMP, and responding to queries throughout the consultation process. Cambridge Water should now focus on delivering the expected outcomes of the current plan (WRMP19 funded via PR19), and considering all the responses to this draft consultation in its final plan. We look forward to continuing to work together as final WRMPs are prepared, to protect water resources now and in the future.

Yours sincerely

[redacted]

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# Annex

In this annex we outline further details on the points raised in our main letter alongside more detailed comments on different areas of the draft WRMP. Our points reflect our assessment approach and focus on:

- **Demand management ambition and outcomes** – alignment with government targets and statutory requirements for water demand.
- **Assessment of water needs** – including key drivers for WRMP24, the supply demand balance forecast and the need for enhancement investment.
- **Options to meet water needs** – the approach taken to identifying and screening options for both supply and demand, review of demand management and supply side proposals including sensitivity testing for key areas, sufficiency of options and option utilisation under normal and peak scenarios, including scalability and modularity.
- **Decision making and prioritisation** – best value decision making for customers and the environment, how the company has approached strategic planning frameworks and alignment with Ofwat's long-term delivery strategies and common reference scenarios[1].
- **Long term best value programme** – cost efficiency, bill impact and affordability of the plan.
- **Customer and stakeholder engagement** – the type and quality of interaction with customers and stakeholders and the impact this has had on the draft plan formulation and proposals.
- **Board assurance** – company assurance and governance processes, including Board engagement and signoff.

## Demand management ambition and outcomes

The Government's strategic priorities for Ofwat states reducing demand for water can relieve pressures on water supply and increase resilience to extreme drought. Water companies must act to reduce demand for water in a way that represents value for money in the long-term. We expect all companies to use their WRMPs to show how they will meet long term water demand targets including:

- halving leakage across the industry by 2050, in comparison to 2017-18 levels[2];

[1] Ofwat, PR24 and beyond: Final guidance on long-term delivery strategies, April 2022
[2] For example, February 2022: The government's strategic priorities for Ofwat - GOV.UK (www.gov.uk)

- reduce per capita consumption (PCC) to 110 litres per head per day (l/h/d) by 2050[3].

A further target is now set in the Environmental Targets (Water) (England) Regulations 2023[4] for the reduction of potable water supplied by water undertakers in England to people in England. This is that the volume supplied per day per head of population is at least 20% lower than the 2019-20 baseline by 31 March 2038. We expect companies to demonstrate how they will deliver against this target in their final WRMP.

We welcome that Cambridge Water has set out it plans to reduce leakage by 50% from 2017-18 levels by 2050. The company also indicates it will deliver a dry year annual average (DYAA) PCC of 110 l/h/d by 2050, meeting industry targets.

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.

## Demand reduction strategy

As we outlined in November 2021[5], we expect near-term interventions being identified in WRMPs to deliver long-term targets such as a 50% leakage reduction and 110l/h/d per 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.

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.

## Delivery of PR19 performance commitments and WRMP19 targets

[3] For example, February 2022: The government's strategic priorities for Ofwat - GOV.UK (www.gov.uk)
[4] Defra, Environment Act 2021: environmental targets December 2021
[5] Ofwat, Ofwat's expectations for strategic planning frameworks at PR24, November 2021

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 welcome that Cambridge Water has set out it plans to reduce leakage by 50% from 2017-18 levels by 2050 and that its proposed rate of reduction of 13.1%[6] 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.

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.[7]

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[8] committed to an informed debate on customer supply pipe strategy by December 2022.

## Per capita consumption (PCC)

[6] From 2019-20 three-year average baseline.
[7] Note the Ofwat analysis undertaken adjusted all costs to the 2020-21 price base.
[8] Water UK, 'A Leakage Routemap To 2050', March 2022.

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.

### Business demand

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%[9] 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.

### Metering

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.

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[10] 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-demand balance or delivering

[9] From 2019-20 three-year average baseline.
[10] Ofwat, PR24 final methodology – Appendix 9: Setting expenditure allowances, December 2022

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 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 long-term strategic outcomes. This should include evidence of target testing and a clear explanation of the company's decision-making process.

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.[11]

## Assessment of water needs

A robust assessment of current and future water needs is critical as it drives the gap between supply and demand and therefore drives the scale of investment required for the 2025-30 period and beyond.

We provided detailed feedback on Cambridge Water's assessment of water needs in our pre-consultation feedback in 2022. Some of our previous feedback has not been fully addressed in the draft WRMP and has been raised again below. Cambridge Water should provide sufficient and convincing evidence that the feedback has been addressed in the final WRMP.

Overall, Cambridge Water appears to have used methods and data appropriate to the scale and complexity of the problem that it needs to address and has recognised the different problems across its area. The key changes to the planning problem are described as growth, sustainability reductions, and increased drought resilience. These are key drivers of investment for this plan.

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

[11] Ofwat, Creating tomorrow, together: Our final methodology for PR24 Appendix 9 – Setting expenditure allowances, December 2022, p85.

Water to plan for the next 50 years. This is to ensure the WRMP identifies the right solutions to meet future pressures.

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[12].

There is limited evidence provided that the benefits of funded PR19 activities have been appropriately factored into the draft WRMP24 baseline supply-demand balance. The company should provide granular details of the benefits of funded schemes and how and when these have benefitted the baseline supply-demand balance in its final WRMP. Where a step change in supply-demand balance between WRMP19 and WRMP24 is not sufficiently justified as being due to changes to scenarios or planning assumptions and may instead be as a result of non-delivery or underperformance, this will be taken into account at PR24 in the assessment of enhancement funding[13].

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.

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

[12] Ofwat, Creating tomorrow, together: Our final methodology for PR24 Appendix 9 – Setting expenditure allowances, December 2022, pp86-97.
[13] Ofwat, PR24 final methodology: Appendix 9 – Setting expenditure allowances, December 2022, pp86-87.

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 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.

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.

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.

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.

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 of outage tracks the reported unplanned outage performance commitment, and what options the company has considered to reduce its outage allowance.

## Options to meet water needs

Identifying an appropriate number and range of options to meet water needs is essential to ensure that customers and stakeholders have confidence that the preferred programmes are optimal. 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.

The investment optimisation used by the company results in very little choice as most of the options available are needed. We are concerned that this has led to the least cost and best value plans including the same options. This questions whether the best value plan really represents best value for customers and the environment. We are also concerned that there are insufficient options to enable robust adaptive planning. This is further discussed in the sections below.

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.

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.

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.

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 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.

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.

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.

## Decision making and prioritisation

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. 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.

Identification and consideration of best value metrics have been presented, however the line of sight to the 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.

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.

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.

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.

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 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 non-essential use bans (NEUBs).

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.

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.

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 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.

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 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.

In its final plan, Cambridge Water should also clearly explain how it has tested the Ofwat common reference scenarios for technology.

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.

## Long term best value programme

The company has proposed £243 million of enhancement expenditure relating to delivery of its draft WRMP24 in the 2025-30 period. Over the 2025-50 period, the company has identified over £1.6 billion of enhancement expenditure.

For this investment, Cambridge Water plans to deliver only 3 Ml/d of supply demand benefit in 2025-30. The company proposes to deliver these benefits at a significantly higher cost in comparison to other companies over this period[14]. This is being driven by little or no benefits associated with the proposed enhancement investment in this period.

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.

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.

## Customer and stakeholder engagement

Cambridge Water has carried out a wide-ranging approach to customer participation and stakeholder engagement reflecting the significant challenges included in its draft WRMP.

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 expect to see further clarity on this, and potentially further work reflected in the final WRMP.

[14] Based on the data submitted by companies in their draft plans and comparison against the industry median

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.

## Assurance

A signed statement of assurance from the Board has been provided, as well as a supporting statement, confirming the engagement and support of the Board. A description is given of the governance structure and the assurance process followed to ensure robust decision making.

In the final WRMP, 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 on 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.

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.[15]

[15] Ofwat, Creating tomorrow, together: Our final methodology for PR24 Appendix 9 – Setting expenditure allowances, December 2022, p122.