Representation on Cambridge Water's draft water resources management plan

Date: 17 May 2023

V2.0

We are the Environment Agency. We protect and improve the environment.

We help people and wildlife adapt to climate change and reduce its impacts, including flooding, drought, sea level rise and coastal erosion.

We improve the quality of our water, land and air by tackling pollution. We work with businesses to help them comply with environmental regulations. A healthy and diverse environment enhances people's lives and contributes to economic growth.

We can’t do this alone. We work as part of the Defra group (Department for Environment, Food & Rural Affairs), with the rest of government, local councils, businesses, civil society groups and local communities to create a better place for people and wildlife.

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Environment Agency
Horizon House, Deanery Road,
Bristol BS1 5AH

www.gov.uk/environment-agency

Email: enquiries@environment-agency.gov.uk

1. Introduction

This is the Environment Agency's review of Cambridge Water's draft water resources management plan (WRMP). We have a statutory duty to manage water resources and protect the environment in England. This includes a legal duty to exercise our functions so as to secure compliance with the requirements of the Water Framework Directive, including preventing deterioration in status of water bodies, under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017. We aim to make sure that there is sufficient water for society, the environment, and the economy. We are a statutory consultee in the water company WRMP process and provide advice to government on the content of these plans. We have assessed the plan against the relevant legislation, the government's expectations for WRMPs and technical information.

2. Executive summary

We are very concerned that Cambridge Water will not be able to meet the demand for water in its area without increasing the risk of deterioration in status of water bodies. Cambridge Water faces significant challenges across its single water resource zone. It must supply a growing demand for water from population growth and nationally and internationally important businesses, whilst doing more to reduce the impact of its abstractions on the environment. It must manage supplies, prevent deterioration in status of water bodies, and protect vital chalk streams and other protected sites. It must ensure its supplies remain resilient to the impacts of drought, climate change and incidents such as freeze-thaw.

The risk of deterioration in status of water bodies as a result of Cambridge Water's abstractions is already causing the Environment Agency to object to planning applications for large developments. We are objecting because we do not have evidence that Cambridge Water can supply planned growth without posing risk of environmental deterioration. Consequently, the water supply demands of large developments in combination with other planned growth, pose a significant risk of causing deterioration in the status of water bodies which applications do not currently account for. Local planning authorities must have regard to river basin management plan objectives, including avoiding deterioration, in their decision making.

It is a water company's responsibility to provide the secure water supplies expected by customers and protect the environment. The water resources management plan must show how the company will do this. It should reflect local growth ambitions and plan to meet the additional needs of new businesses and households and deliver statutory environmental obligations, including preventing deterioration in status of water bodies.

Cambridge Water's draft water resources management plan does not provide the confidence that it can achieve its responsibilities to meet demand and protect the environment. In the short term it is reliant on demand management and drought measures to prevent its abstraction from increasing and preventing deterioration in status of water bodies. The plan does not show how the company will apply drought measures in practice to manage demand. This combined with the company's track record of not achieving forecast demand savings, means we are very concerned that it will not deliver the reductions in demand stated in the plan. For example, the company's per capita consumption (PCC) in 2021-2022 was 141 litres per person per day (l/h/d) against a planned level of 136 l/h/d. The company's plan forecasts that abstraction is likely to continue to rise meaning there is a high risk of causing deterioration in status of water bodies.

Fast and effective roll out of smart metering will be essential to reducing demand. This was reinforced in the letter from Minister Pow to water companies on 15 March 2023. We are disappointed that the company plans to take more than 10 years to cover its entire network. The planned smart meter implementation is slower than other larger programmes in England. The pressure on water resources means we expect Cambridge Water to deliver smart metering at a faster pace. It should aim to complete the full roll out by 2030 or earlier.

The company should provide greater evidence that its demand management programme will succeed. It should clearly demonstrate the role that government interventions are assumed to have in this. It is essential that the company continuously monitors its progress and acts quickly if the assumed demand savings are not achieved. The company should consider an alternative pathway or plan with trigger points in case it cannot deliver its forecast demand reductions. It must set out how it intends to use restrictions such as temporary use bans to manage demand and provide confidence that these will deliver the reductions in demand needed to prevent deterioration in status of water bodies.

Our lack of confidence in the company's ability to deliver its future demand management reductions through 2025 to 2050, means Cambridge Water must consider how it can accelerate all its supply schemes. The company does not present any significant (greater than 5 megalitres per day) viable alternatives to demand management until 2030 when a transfer of water is potentially available from Anglian Water and then 2036/7 when the proposed Fens reservoir is due to be delivered. There is uncertainty about the deliverability of both schemes. The company does not provide confidence that it will be ready to use the transfer from Anglian Water and provide the water treatment that will be needed to put the water into supply.

Cambridge Water has no alternative plan if the Fens reservoir or the transfer from Anglian Water are delayed or cannot be delivered. This presents an unacceptable risk to security of supply and the environment. The company must work with Anglian

Water and Water Resources East (WRE) to develop fully costed and deliverable alternative options to manage this risk. It should include consideration of a transfer from Water Resources South East (WRSE) in the short term and long term as a potential solution.

Cambridge Water was able to rely on its groundwater sources during the drought in 2022, but this brings a continued risk of causing deterioration in status of water bodies and the potential for further licence constraints. Many companies had difficulties supplying their customers in the hot weather. Climate change means that the weather we experienced last year will be seen more frequently and that we will experience more extremes of weather.

Cambridge Water should consider what lessons it can learn from the drought and how it can improve security of supply for its customers while protecting the environment, particularly following a second dry winter. The company should present the lessons identified and the actions relevant to its WRMP in its final plan. It should highlight any changes it intends to make to its plan because of the drought and that are needed to prevent deterioration in status of water bodies from increased abstraction.

We have ongoing significant concerns with company's ability to deliver the supply options and demand management measures in its plan. We expect substantial improvements to demonstrate that Cambridge Water is planning to safeguard the environment while having enough supplies to allow growth in its area.

3. Legal compliance

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.

Direction not complied with	Description **3. (1) In accordance with section 37A(3)(d), a water undertaker must include in its water resources management plan a description of the following matters—**
3 (d)	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.
3 (g)	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 (ee) selective metering
3 (h)	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

4. Recommendations

We recommend that Cambridge Water undertakes the following actions to meet its legal obligations, secures supplies for its customers, protects the environment, and meets government expectations.

The evidence report appended to this report sets out the evidence behind the recommendations.

- **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.

- **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.

- **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).

- **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

- **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.
- **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.

- **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.

- **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.

- **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.

- **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.

- **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.

- **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).** See the evidence report for details.

5. Improvements

We consider that the following improvements would be beneficial to Cambridge Water Company's draft WRMP. The evidence report sets out the detailed requirements and evidence behind these improvements.

- **Improvement 1: Explain how the company will reduce greenhouse gas emissions.**

- **Improvement 2: Clearly set out all existing bulk transfers.**

- **Improvement 3: Clearly present the proposed use of drought measures in the data tables.**
- **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.
- **Improvement 5: Clarify the use of best value metrics.**
- **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 improvements suggested by its consultants to improve its demand forecasts.
- **Improvement 7: Review resilience of the plan in the context of the 2018 and 2022 droughts.**