

# RESPONSE from Cambridge and South Cambridgeshire Green Party May 2023

## Cambridge Water's Draft Water Resources Management Plan (WRMP) 2025-2050

### Summary of key points

Cambridge and South Cambridgeshire Green Party is very concerned about the overall regional water shortage and its impacts on both people and nature. We have long raised the need for developing holistic solutions to this, and are pleased to see that Cambridge Water is starting to recognise some of the critical issues facing the area that it serves, in particular that it now acknowledges the conclusion reached by the Environment Agency that the region is '*seriously water stressed*'.

However, we do not think the plan demonstrates a sufficiently urgent response given the climate change and biodiversity crises and we are concerned that, at this stage in the planning, there are still fundamental issues to be resolved. We feel the consultation was inadequate because so much key information is still to be gathered, the majority of materials provided were too technical, and the stakeholder engagement process was not fully transparent.

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 are seeing are well in-line with predictions for climate change scenarios.<sup>1</sup> 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. 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.

We accept that measures such as surface water transfers and a reservoir will be necessary but these solutions must be strategically planned, clearly costed and transparent, and must be compatible with commitments to reach net zero and halt biodiversity loss.

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

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<sup>1</sup> <https://www.nature.com/articles/s41467-023-36499-9>

- Acceleration of installation of water recycling and rainwater harvesting schemes in both old and new buildings.

The prevailing approach of pursuing economic growth at all costs is not appropriate: government housebuilding allocations and aspirations for economic growth are still being treated as fixed points, with water supply seen as a variable that has to accommodate these political aims. The reality is that water availability is a physical constraint. Our priority should be to live within our means, through reducing total demand and finding sustainable ways to increase usable supply (for example through better rainwater capture). Currently we simply do not have the surplus water available which would be needed to supply the planned levels of development. All our comments about the detail of this plan must be taken within the context of this one key fact.

### Detailed comments

#### 1. There is a lack of clarity as to whether the required reduction in abstraction from the chalk aquifer will take place

We are uncertain that the pre-consultation comments from the Environment Agency (EA)<sup>2</sup> 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.

Abstraction from the Chalk aquifer has to be reduced at source so that Chalk springs and headwaters run freely, as they would under natural conditions, every year, whatever the weather. We supported the supply side of the Water Resources East draft management plan<sup>3</sup> which proposes that until 2025 there is *“an immediate focus on abstraction hotspots around chalk streams”*, and that abstraction should be halted as quickly as possible. Furthermore, in 2022, the Cambridgeshire and Peterborough Combined Authority allocated £420,000 for restoration and conservation actions to protect and build resilience in local chalk streams. Given the uncertainty of flow in these watercourses, the impact of this investment is at risk.

More recently the EA has raised concerns as a consultee on planning applications (such as Darwin Green, an allocated site on the edge of Cambridge) and asked for further information as to whether the proposed developments may, through additional demand for potable water use, increase abstraction and risk further deterioration to water bodies in the

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<sup>2</sup> <https://www.cambridge-water.co.uk/media/3827/appendix-a-pre-consultation-comments-summary-cwc.pdf>

<sup>3</sup> <https://wre.org.uk/the-draft-regional-plan/>

Greater Cambridge area<sup>4</sup>. During the EA Drought Update public webinar of 20<sup>th</sup> April 2023, the EA verbally expressed concern about the proposed abstraction levels in the draft WRMP. The WRMP is expected to determine if there are sufficient available water supplies for both the planned growth in the region and for restoring and maintaining a healthy environment on which we all depend, and there continue to be doubts about this.

There is thus 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<sup>5</sup>. 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.

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<sup>6</sup>, 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.

## **2. Comments on proposed supply options**

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 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: *"Short-term supply issue in the years to 2030, when caps from the Environment Agency on the amount of water we can take from our sources come into effect. We're working with the Environment Agency to identify options around the timing of these caps."*

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<sup>4</sup> Information from draft Cambridge City Council response to Cambridge Water draft WRMP consultation

<sup>5</sup> [https://public.wmo.int/en/media/press-release/global-temperatures-set-reach-new-records-next-five-years#:~:text=Published&text=Geneva%2C%2017%20May%202023%20\(WMO,World%20Meteorological%20Organization%20\(WMO\)\)](https://public.wmo.int/en/media/press-release/global-temperatures-set-reach-new-records-next-five-years#:~:text=Published&text=Geneva%2C%2017%20May%202023%20(WMO,World%20Meteorological%20Organization%20(WMO))).

<sup>6</sup> Cam Valley Forum (2020) "Let it Flow!" <https://camvalleyforum.uk/publication-let-it-flow/>

### **2.1. Water transfers from (a) a source at Fenstanton (2 MI/day) and (b) from Grafham reservoir (15 MI/day)**

As explained in the consultation document, Cambridge's water is supplied wholly by groundwater, mainly abstracted from the chalk aquifer in the southern and eastern part of the supply area, with a small percentage of greensand and aquifer sources, that are linked by an integrated supply and transfer system. Less than 1% of supplies are derived from bulk imports from neighbouring companies. These two supply options introduce further transfers from neighbouring companies and new resources, derived from surface water sources. We understand that both options are being further investigated and that they appear to involve for (a), boreholes into gravel in the Great River Ouse area and for (b), bulk water transfer (through pipes) in collaboration with Anglian Water. Both options require licences and appear to be far from finalised; the bulk-supply from Grafham, as noted in the WRMP, is unlikely to start before 2030 and may only be a temporary solution. 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. There would appear to be an urgency for both water companies, the EA and DEFRA to complete exploration of the technicalities of delivery of this scheme as soon as possible.

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.

### **2.2. 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.

### **2.3. Installation of water recycling and rainwater harvesting schemes in all new large housing developments.**

This is shown as both a supply option and a demand management option, and we understand that further exploration of this is underway, although it is anticipated that it could provide 1.5 million litres of water a day across 10,000 new properties. We support this aim and consider that all major new housing and business development should be water neutral - i.e. offsetting new demand with equivalent efficiency savings in the use of water in existing development. In the Sussex North Water Supply Zone, another area of high water-stress, Natural England has advised the Local Authorities (Crawley and Horsham) not to give

planning permission until a development can be shown to be water neutral; we would like to see an equivalent approach taken in Cambridge and have written to Natural England about this.

#### **2.4. The proposed Fen Reservoir**

This option is anticipated to provide up to half the area's water needs (around 43.5 million litres of water a day) from the late 2030s. The Green Party provided a response<sup>7</sup> to the reservoir consultation which give further details on our views. We recognise that downstream reservoirs fed by high winter surface water flows, as alternatives to groundwater boreholes, may be necessary given the current shortfall in supply. We particularly recognise the vital need to capture rainwater, noting that in Cambridge a tiny proportion of our water comes from surface water (or direct rainwater) compared to abstraction from the aquifer. The option of a reservoir makes sense if this is the best way to capture water. However, as outlined in our consultation response, there are a number of issues to 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.

### **3. Comments on proposed demand management**

As mentioned in our response to the draft WRE WRMP<sup>8</sup>, we think there needs to be much more concerted and urgent action to manage demand in this area. The targets laid out in the draft Cambridge Water WRMP are largely inadequate.

#### **3.1. 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.

#### **3.2. Household water use reduced to 110 litres per person per day by 2050 and non-household 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

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<sup>7</sup> <https://cambridge.greenparty.org.uk/site/Cambridge/files/cambridge-and-south-cambs-green-party-response-on-fen-reservoir.pdf>

<sup>8</sup> <https://cambridge.greenparty.org.uk/site/Cambridge/files/green-party-response-to-wre-water-consultation-feb-2023.pdf>

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.

The draft WRMP recognises that a lower target is needed in that it includes modelling for a reduction to 90 l/p/d. Other water companies are known to be working towards a more rapid and larger average daily water use: Southern Water, for example, is working with their customers to reduce use to 120 l/p/d by 2025 and 100 l/p/d by 2040<sup>9</sup>. The Greater Cambridge Integrated Water Management Study<sup>10</sup> shows that 110 l/p/d is achievable by making full use of efficient fixtures and fittings, and that 80 l/p/d can be achieved by installing water re-use measures on site including rainwater harvesting and grey water recycling. The study showed that cost effectiveness improves with the scale of the project and that a site-wide system is preferable to smaller installations, although even these can be beneficial.

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 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

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<sup>9</sup> [https://www.southernwater.co.uk/media/1847/01\\_exec\\_summary\\_.pdf](https://www.southernwater.co.uk/media/1847/01_exec_summary_.pdf)

<sup>10</sup> <https://consultations.greatercambridgeplanning.org/sites/gcp/files/2021-09/Integrated%20Water%20Management%20Study%20-%20Outline%20Water%20Cycle%20Strategy%20%28Stantec%29.pdf>

**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 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.

**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<sup>11</sup>. 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<sup>12</sup> to the Chair of Cambridge Water in 2022.

**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.

### **3.3. Roll out of universal smart metering between 2025 and 2035**

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<sup>11</sup><https://cambridge.greenparty.org.uk/site/Cambridge/files/Green%20Party%20response%20Cambridge%20Water%20drought%20plan%20consultation%20Aug%202021.pdf>

<sup>12</sup> <https://cambridge.greenparty.org.uk/news/cambridge-greens-letter-to-the-chair-of-cambridge-water.html>

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 acknowledge that smart meters can bring additional benefits, both in terms of driving behaviour change (the WRMP states that *“Throughout our engagement, those customers with smart meters acknowledged that they had changed their behaviours to reduce their usage and save money”*) and enabling additional measures such as effective leakage reduction.

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 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.”*

#### **4. 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 water companies have an obligation to communicate information to the public, in a clear and understandable way, on:

- the impact of water-stress on households and the environment;
- the trends becoming evident with climate-change;
- the roles of the different bodies involved; and
- the responsibilities of individual users.



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.

This reflection is emphasised by a single small detail: on p.26 of the full draft WRMP the page header, which on earlier pages references “Cambridge Water”, changes to “South Staffs Water draft water resources management plan 2024”!

## **5. 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<sup>13</sup>:

- *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.*

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<sup>13</sup> Bullet points from ppt supplied by Cambridge Water following the webinar

- *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.*

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. Many of our more detailed comments given earlier relate to the bullet points above.