

# Addressing Cambridge's Water Scarcity

*How can we preserve our future water supply and help save the Chalk streams?*



*Photo: Wild Trout Trust, Hoffer's brook*

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## Background

On 6 March 2024, the Government [published an important update](#) on its proposed measures to increase water supply in the Greater Cambridge area and address the water scarcity.

They proposed to

- **Ensure long-term water supply, by accelerating the** proposed Grafham transfer and Fens Reservoir, using Cambridge as an area for innovation in water management in agriculture and through nature-based solutions, and supporting the development of a long term plan strategic water resources plan.
- **Support growth in the short-term so that development currently stalled can proceed**, by supporting increased water efficiency, reuse and offsetting, which will prime a 'water credits system'.

We are concerned that the aim appears to be to permit new developments with the current level of abstraction, rather than to reduce abstraction by around 50%, as we need to do to save our globally important chalk streams.

Given the imperative of reducing water use, we support the plans to invest in temporary water transfer from Grafham (due to be available from 2032), to build the new reservoir (due to come online in 2036), to invest in nature based solutions that will allow the aquifer to be recharged, and to improve water use efficiency. However we have significant concerns about the proposed "water credits" offsetting scheme.

As with the failure of [carbon offsetting schemes](#) which have often failed to deliver the claimed savings, water offsetting is likely to create a fig leaf of pretended future savings, in order to allow developments to proceed. Meanwhile the over-abstraction from the aquifer and destruction of our chalk streams will continue unabated.

## The proposed 'Water Credit' Offsetting scheme

We are very concerned that the credits will be based on unsubstantiated estimates of future savings, and then used to justify new developments that will increase water usage.

The Government says

*"Currently, there are over 9,000 homes and 300,000m<sup>2</sup> of commercial space unable to proceed through the planning system due to the EA advising that some water bodies in the Cambridge area are at risk of deterioration and that any new development that takes place must not to add to this adverse effect.*

*To that end, we are creating an innovative 'water credits system' primed by up to £4.5 million to retrofit water efficient devices into existing buildings and offset projected demand of development coming forward".*

Concerningly, this sort of Water credits offsetting scheme has not been done before, there is no evidence that it will work, and the detailed design work has not yet started. Nevertheless Government says

*"This will provide the mechanism for development to progress through planning while minimising the risk to the environment."*

Cambridge Water claims in its Business Plan that it can persuade households to reduce water usage by 30% per person. However, its efforts to date have been pathetic, and it appears to want to achieve this in part by 're-basing' their reduction target on a temporary covid-era increase in water consumption, which peaked water use at around 150 lppd. As [they admit](#) that they took 31% more water from the aquifer at Abington than is permitted by their license in 2022/23, it seems to us that this 're-basing' of their target could result in them making little or no real reduction at all.

[As Cam Valley Forum members' experience shows](#), water use currently depends very largely on the household's choices, with only a small impact from water efficient appliances. Regulators and water company's efforts to influence and support those choices have so far been pathetic, and so we suspect that an offsetting scheme is unlikely to make a significant difference.

## How can we address short term water scarcity?

At present, 97% of the water that comes from our taps in Cambridge is pumped out of the Chalk aquifer. As a result, water levels are declining, which is drying out our globally rare Chalk Stream habitats and risking the future supply for households.

It is clear: we need to dramatically reduce abstraction and water use in the Cambridge region, not increase it.

Most water use in the Cambridge region is supplied to households and the number of households is increasing, which means that we are in trouble. The good news is that some members of [Cam Valley Forum](#) and other groups are already [showing what can be done](#), with water use of just 50-80 litres per person per day. This is around half the average.

We believe that the Cambridge region needs the following measures (in addition to voluntary action by consumers) to help preserve Cambridge's water for the future and to help save our Chalk streams.

- a) A change in regulations to permit 'grey water' (rainwater) to be used to flush toilets
- b) Temporary Use Bans a.k.a Hosepipe bans in force every summer.
- c) A significant investment by Cambridge Water to dramatically reduce leakage.
- d) All major water users, such as industrial, commercial and academic buildings, to be required to have individual water meters in each building, and to report publicly on their water use for each building.
- e) A water use standard of designing for 80 litres per person per day for newbuild homes, as proposed in the draft Greater Cambridge Local Plan.

## Water Reuse must be permitted

The Government update says

*"We are working to encourage and incentivise developers in Cambridge to design to the highest water efficiency standards possible, utilising innovative technology such as greywater reuse systems"*

The update gives the example of water reuse schemes Eddington and Clay Farm in Cambridge, but fails to mention that [regulations currently prevent them from being used](#).

Cambridge University's development in [Eddington was designed with high sustainability standards, including the proud claim](#) that *"The development features the largest grey water recycling system in the country, with water recycled through cleansing lagoons for non-potable use"*, such as flushing toilets. However, Eddington's estate management has recently confirmed to us that Drinking Water Regulations have made it illegal for them to switch the system on!

These regulations urgently need to be updated to permit water reuse systems to actually be used.

## Water use standards in New Build homes

Looking to the future, the draft Greater Cambridge Local Plan, which has unfortunately been delayed, is proposing to require developers to design new houses so that the consumption is only 80 litres per person per day. This compares to the current requirement to design new houses to use 110 litres per person per day, and

Cambridge Waters 2022/23 performance commitment in their [2025-30 business plan](#) of 136 litres per person per day

We think 80 litres per person per day is a good target for our highly water stressed area, as we understand it will effectively require developers to install grey water recycling systems, as at Eddington. It also, of course requires regulators, such as the Drinking Water Inspectorate, to allow those systems to be used.

However, as the [experience of Cam Valley Forum members shows](#), designing for low water consumption does not mean that households will actually choose to use less water, without other structural or regulatory measures to provide incentives.

## Individual property metering

Many major water users receive a centralised water bill, but do not have individual metering for individual buildings. For example, Cambridge University's Chemistry Laboratory on Lensfield Road is a clearly a major water user, but as the building's water use is not individually metered, there is no way for them to monitor it, and little incentive to reduce water use.

Developers are also building blocks of flats with a shared water meter for the building. Again, as there are no meters for the individual flats, its very hard for households to monitor and reduce their water use.

Individual property meters should be made compulsory

## Temporary Use Bans

Although the region is no longer classified by the Environment Agency as in drought status, the erratic weather we are experiencing (a well understood signal of [major climate change](#)), indicates that we are facing more long periods without rain. Cambridge Water recognises the critical impact that climate change will have, noting in its [2025-2030 business plan](#) that *"we are likely to see more extremes of weather, with 60% less rainfall in the summer and 30% more rainfall in the winter in our Cambridge region by the 2080s."* The company also acknowledges that, with the current growth proposals and the need for licence caps on abstraction to protect the natural environment, [the region will run into a water deficit by 2029/30](#)

At its regular 2023 public webinar drought updates, the Environment Agency expressed disappointment that Cambridge Water did not introduce a Temporary Use Ban. This would have had the benefit of reducing household water use during the summer (when hosepipe use significantly increases household water usage). It would also demonstrate clearly to householders, government and regulators that we are a water stressed region and that the current level of abstraction from the aquifer is unsustainable.

## Dramatically reduce leakage

Cambridge Water's 2025-2030 business plan admits that 13.4 Million litres per day (15% of treated water) is lost to leakage in the Cambridge area. As [Cambridge Water supplies 138,000 households](#), this is equivalent to a shocking 97 litres per household per day.

When it is compared to the average household water use of 136 litres per person per day, the significance of this is clear,

Cambridge Water are planning to reduce leakage by 20% by 2030. However, given the seriousness of the water scarcity situation in the Cambridge area, and the expectation that Climate Change will increase the risk of leakage while making droughts more severe, it is clear that we need much faster progress in reducing leakage.