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Greater Cambridge Local Plan Consultation:

Response from the Cam Valley Forum

INTRODUCTION

This is the consultation response from the Cam Valley Forum to the Draft Local Plan. We highlight the issues that our group addresses namely the health and well-being of our human community's relationship with our river and river valley, be it its nature, wildlife, amenity or heritage. The Forum, a voluntary charitable organisation, works with many other bodies to protect and improve the river Cam and its riversides, including its many tributaries and its sustaining aquifers. This response focuses mainly, therefore, on our group's concerns **for the future of the river and its environment**. However, since as individuals and as a group, we are also concerned about the city and its environs, we are not confining our comments to river-related issues alone. We have contributed to the planning discussions that have already taken place but we do urge that some of the points below be taken seriously.

The River Cam is an invaluable, but vulnerable, natural asset to the environment of Cambridge and South Cambridgeshire. Cambridge without its river would not be all that it is. As your proposals recognise, the river and its tributary streams bring threads of wildness through an intensively farmed countryside as it flows north. Its riversides contain and connect with many important wetland habitats. Its wetlands still hold elements of the wildlife most typical of this ancient lowland region.

Important to the whole planning process is the fact that the River Cam's waters are enjoyed by rowers, punters, boaters, canoeists and swimmers, while many more people enjoy walking, picnicking or angling from its banks. **It therefore needs to be a river to be proud of and not ashamed of.** Visitors from far and wide come to experience the world-famous Cambridge Backs.

The Chalk streams in the UK are internationally important in the conservation of biodiversity. The UK has about three-quarters of the world total. For reasons of long standing environmental abuse in the Cam Valley these streams are not among the best (on account of low flows and widespread pollution) but, despite the impacts of over-abstraction, pollution and channel modifications, they are still valued highly for their lowland scenery and for their provision of recreation and well-being for local people. We welcome that Chalk streams are now on your planning map **as highly significant to our national conservation position** and that means that with investment by Cambridgeshire the position is potentially reversible. Largely through our lobbying and the campaigning of many other river supporters something is at last now happening.

The local plan has at last woken up to this reality - but may not have done so entirely. We do need some development but there has been too much spin and 'greenwash' from the pro-development lobby. **There is thus a tendency to give lip service to sustainable development without recognising that we humans are part of the ecosystem and are already overdrawing our natural capital.** We call on our political leaders need to heed the authoritative voice of Sir David King (former Government Chief Scientist): he made it very clear to a recent meeting of Natural Cambridgeshire that unless you first have ecosystem well-being you cannot contemplate truly sustainable development. He is right. All the policies and proposals of this local plan need to be appraised rigorously, in the light of their potential to counteract or weigh against genuine environmental sustainability. **Only if that is recognised do we welcome it.**

We address our remarks in response to the plan under the Policy headings you have employed, most specifically in your designated areas of ‘Climate Change’ and ‘Biodiversity and Green Spaces’.

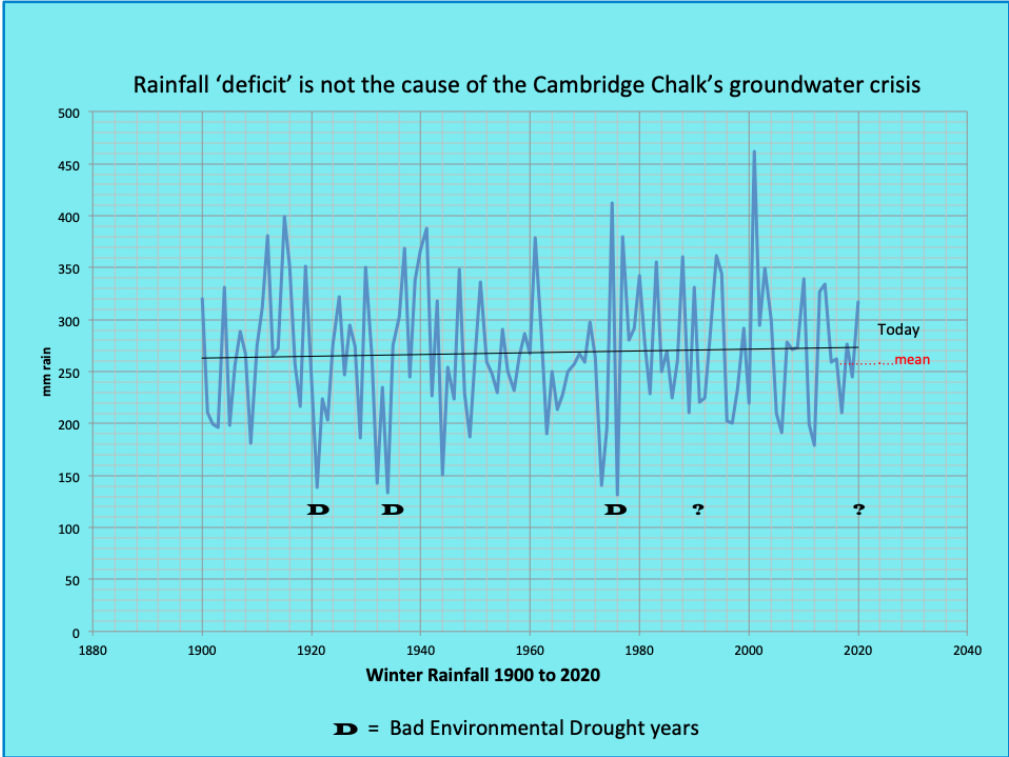
CLIMATE CHANGE

Policy CC/DC

The report of the [Cambridgeshire and Peterborough Independent Commission on Climate](#) drew on well-founded national research but not, as far as we are aware, on any detailed local meteorological studies.

As you recognise, the Cambridge area rainfall is low compared to any other English region and is, year on year, highly variable. Droughts and flood events are therefore to be regularly expected. Summer evapotranspiration generally exceeds rainfall. Thus, only winter rainfall adds significantly to the recharge of the chalk aquifer; the local water companies’ dependence on this source (97% for Cambridge Water) therefore lacks resilience in the face of winter droughts. We are glad that this is now being addressed by plans for a Fen Reservoir. But there is little chance of this physically helping our dire situation before 2035. The reservoir provision alone will not be sufficient for the demand unless water neutrality is assured in new development.

The Commission’s report suggests that winter rainfall may increase but the graph below shows only a tiny upward trend over the past 120 years; we cannot expect any significant increase in winter recharge. There have been much greater droughts in the past than anything experienced recently.



There is, however, in terms of climate change, plenty of evidence of rising summer temperatures, earlier springs and longer summers. This all means greater evapotranspiration. Our studies attribute part of the Cam’s currently falling river flows to increased soil moisture deficits. i.e. it takes more rain to wet up the soil before any rain water percolates through to recharge ground water. Our 2020 [Let it Flow!](#) report shows that in 24 (41%) of the years 1961-2019 inclusive, winter rainfall did not exceed the previous deficit, so there was in effect no recharge. When this happens in two consecutive winters, as last in 2018-19, our Chalk streams suffer greatly the following summer.

Present water sourcing from the aquifer is already unsustainably managed as historical river flows have halved. This greatly reduces the chance of reversing the losses of wetland biodiversity that the Greater Cambridge area has already experienced. We heartily agree with the national Environment Agency that only a 60-70% reduction in present abstraction will return our rivers to more normal flow. Until this is achieved there will still be serious short term consequences for meeting water demand. This must continue to be recognised and not brushed aside.

We also question the good sense of the Government's calculation of the overall risks from climate change to future population growth in this region. Year on year, many risks appear to be increasing (from sea level change to higher temperatures); the precautionary principle needs to be to the fore in this already densely crowded and low-lying region. You cannot easily plan to mitigate a rising trend.

Our policy position on water flows, as advanced in our *Manifesto* in 2019, *Let it Flow!* report in 2020, and other submissions, and as summarised in our response to the Government's [Draft Strategic Priorities for OFWAT](#), is:

- *We expect OFWAT and the water companies to act to protect and enhance priority habitats. In the case of Chalk streams, for which the UK has a global responsibility, we expect them to take a lead role in implementing the CaBA Chalk Stream Restoration Strategy 2021. They should take all possible steps to reduce abstraction from Chalk aquifers at source, aiming to ensure that chalk springs and headwaters run freely, as they would under natural conditions, every year, whatever the weather.*
- *The companies should cap abstraction at current actual (not licensed) levels, meet new demand through water transfers (from surface water sources) from other companies, and invest in reservoirs fed by high winter flows as alternative sources of supply.*
- *Recognising that all Chalk streams now lie within 'areas of serious water stress', they should establish a new baseline of annual restrictions on water use and tighten these as necessary in response to environmental as well as supply triggers.*
- *Companies treating wastewater should invest in spill monitoring, stormwater storage, and phosphate reduction to 0.2 mg/l total phosphorus, at all works that discharge to Chalk streams.'*

In the Cam Catchment, in 2019, three water companies abstracted some 105 Megalitres/day from the Chalk aquifer (Cambridge Water 64%, Affinity Water 22% and Anglian Water 14%). The Environment Agency abstracted a further 15 Ml/day to augment flows on Cam Valley Chalk streams damaged by water company abstraction. Until the proposed Fens and South Lincolnshire reservoirs come on line in the 2030s, the companies must cap abstraction and supply all new demand in Greater Cambridgeshire by water transfers from surface water sources to the west and the north. They also need to invest in compulsory metering, leakage reduction and demand management. The local authorities should do everything in their power to support this dramatic readjustment in our water supplies.

Policy CC/WE and CC/FM

We fully support Policy CC/WE, which will require new developments to meet high standards of water efficiency, in particular the standard of 80 litres/person/ day for residential properties (unless demonstrated impracticable). We contributed to and welcomed the Integrated Water Management Study (IWMS). To achieve any 'water neutrality' from the current position will require substantial reductions in demand commensurate with any and every development envisaged. The track record of our resource management is so bad that we have little confidence in any major development improving things without a huge cultural change and management change to the water industry operations. This is really urgent.

In *Let it Flow!* we proposed that consumption might be regulated by the local authority. We do recognise that this would require Central Government legislation and action, but why not? Local authorities play a much stronger role in controlling water use in similarly water stressed regions such as Cape Town (RSA) and California (USA), why not in Cambridge too? Our local water companies currently propose little more than 'targeted communication' to encourage voluntary reductions in water use during prolonged dry weather.

Local authorities should join us in pressing for mandatory restrictions on consumptive uses (e.g. hosepipes, sprinklers and pressure-washers) in every summer, with such restrictions being rapidly tightened and widened if ‘dry weather’ turns into ‘drought’.

Policy CC/FM

Flooding is an ever present concern. We are pressing for a more integrated approach by the Environment Agency, Natural England, farmers and Local Authorities. The Local Plan should recognise that episodic ‘flooding’, may be increasingly likely with climate change. This can be mitigated upstream by slowing river drainage. We have had over 60 years of ill-advised river dredging in our lowlands to increase arable areas on farms. To reverse this trend would help. This more ‘natural’ approach to flood plain management would require a reversion to an earlier pattern of agricultural land-use management with wet meadows and less arable land in the flood plain itself.

Some river valley farmers are already making this positive change. e.g. South Cambridgeshire could develop a larger flood plain basin with a wet woodland as a buffer against future Cambridge City flood events. This wet woodland would impede rapid flow, so attenuating the flood, save water, sink carbon dioxide and ease soil erosion. Such wet woodland sites could also provide great benefits to biodiversity and even recreational areas. The present heavy winter flood events are losing good soil from our farmlands. Restoring riparian grazing grasslands would sequester carbon efficiently - an added bonus to our carbon depleted soils.

We fully support Policy CC/FM, which includes directing development away from floodplains, the incorporation of sustainable drainage systems into new developments (including the use of mitigation wetlands and permeable surfaces), and ensuring that new development does not increase flood risk elsewhere.

BIODIVERSITY AND GREEN SPACES

Policy BG/RC

We broadly welcome the River Corridors Policy. However, it promotes River Corridors as an amenity for recreation as if the rivers are already in good health and can take increased human pressure. The river water flows and water quality are not in good health. The summer Cam runs pretty much with only treated sewage effluent. On the tiny Mel river (tributary of the Rhee) the summer flow pulses with the periodic discharge from their local sewage treatment works. We have recently shown, through water testing, that the bulk of *E coli* in the river Cam comes from these treated effluent sources. Because of low river flows, our water quality status is ‘poor’ in the upper Cam corridor. This is largely on account of unacceptably high phosphate levels. The status quo is already shameful.

The plan should fully map a ‘nature recovery network’ with set targets for improvement. Water is a vital part of this connectivity, as are all drains, streams, rivers, lakes and ponds. A ‘nature recovery network’ must include these aquatic elements at the same time as identifying new large-scale areas for habitat creation, including new woodlands and areas of natural regeneration, and opportunities for linking them all together. We acknowledge that there are health benefits from rural access, but our wildlife - presently limited by pollution, habitat and biodiversity losses - are also vulnerable and need more protection.

The pressures on our present open spaces along corridors with public access are already hard to manage and are presently considerable: Grantchester Meadows is a case in point. However, sites like Trumpington Meadows are beginning to show that positive change is possible.

In our 2020 [Green Infrastructure consultation response](#) we urged the planning designation of ‘Riverscape Opportunity Areas’ (perhaps a more interesting title than ‘River Corridor’) extending at least 50 metres each side of the main rivers, streams and brooks within Greater Cambridge. In these areas, the aim should be to encourage natural processes so far as possible. For example: buffering watercourses against surface water run-off and improving habitats in built-up areas; and, in rural areas,

reconnecting rivers with their flood plains, tackling the damage caused by over-deepening and straightening, buffering them against nutrient, pesticide and soil inputs, and restoring light grazing.

Opportunities that should be sought within 'Riverscape Opportunity Areas' include:

- (a) Vary mowing regimes in urban parks to create more diverse vegetation.
- (b) Actively reintroduce meadow species into rye-grass swards on the urban commons and parks (including parts of the more intensively-managed local Nature Reserves) using local seed sources (e.g. as on King's College lawn) to strengthen populations of less common wild flowers that are vulnerable to local extinction.
- (c) Recreate scrapes and ditches on riverine commons in Cambridge to restore habitats for wetland plants lost when the commons were infilled and levelled in the 19th century (for examples of the impacts and their extent in Cambridge see C. D. Preston *et al* (2003): The long-term impact of urbanisation on aquatic plants: Cambridge and the River Cam. *The Science of the Total Environment* 314-316: 67-87).
- (d) Create further inlets and ponds to create new water habitats, provide refuge areas for fish during high flows and areas where young fish can flourish. The new inlet created on Logan's Meadow in Chesterton is valuable in many ways although further work appears to be necessary to improve water quality as the stream and pond bed appears to be dominated entirely by algal growth.
- (e) Replace sealed surfaces where possible with permeable paving to allow water to filter into the soil rather than running into the river, creating pollution risks (e.g. in front of boathouses in Cambridge).
- (f) Install and maintain silt and pollutant traps in all surface water drains from highways or private land (e.g. Colleges) that run directly into the river, or connect these instead into the sewer network, to reduce water pollution from hydrocarbons, microplastics, and silt.
- (g) Commission and implement expert advice (e.g. from the Wild Trout Trust and Wildlife Trust) to restore and enhance rivers and their tributaries in Greater Cambridge. Reports available on the Wild Trout Trust website include: Cam (Hinxtun 2015), Granta (Linton 2019, Babraham 2019), and Cherry Hinton Brook (2017). These make many valuable recommendations to tackle concerns such as: low flows; pollution from sewage works, surface water drains and contaminated land; tree and vegetation management; siltation; channel over-deepening and straightening; and barriers (e.g. weirs).
- (h) Establish significant buffer strips of natural vegetation alongside watercourses to protect them from spray drift and run-off of soil and nutrients from intensively-managed farmland.
- (i) Remove invasive non-native species such as Floating Pennywort *Hydrocotyle ranunculoides*, and Himalayan Balsam *Impatiens glandulifera*, which threaten indigenous biodiversity.

In relation to item (g), we very much welcome the Greater Cambridgeshire Chalk Stream Project, which draws on the expert work of Rob Mungovan, Ruth Hawksley and Guy Belcher; Their inspiring report identifies opportunities to restore channels and enrich the river substrates with manageable modifications. We note that the implementation cost of the 109 projects listed for Chalk Streams within 13 of the Cam catchment's 29 water bodies is some £800,000. We urge the City and District Councils to seek this funding in conjunction with those locally committed to Chalk Stream restoration.

Policy BG/EO

We fully recognise the benefits of open spaces as a key aspect of the environment. They are indeed fundamental to the character of an area. Attractive, accessible and well-designed open space can

certainly support and enhance the appearance of an area. Such places are not built in less than decades and too often developers are completely ill-equipped to manage or plan such areas. When questioned at 'Darwin Green', for example, the developers there were completely unable to say how the designated open spaces would be made 'green' how they would be managed and what diversity of options were being considered. This is a planning imperative. Is the GCP up to planning these things with its own staff? It is frankly disgraceful that more physical conservation management staff are not employed. Green infrastructure requires jobs to be created and committed to long term planning and support.

Riparian pasture is essential to the future of our green spaces. Paradise, Sheep's Green and Coe Fen are exemplars of good practice. These areas have quite high biodiversity, very capable management and combine traditional wetland pasture management by cattle with provision of open recreational space. The Rush stream also provides a very valuable site for wildlife in a near urban setting. Green sites can be well-used by the public while being degraded ecologically (e.g. Jesus Green has little ecological value as a grassland habitat). If river corridors are to show wildlife gain, we need genuine *Rus in urbe* management. Urban wildlife (in Cambridge) is substantially more biodiverse than in the surrounding countryside, especially where there are major gardens with good tree and shrub cover. Grazing by 'Cam Cattle' also makes a vital and under-appreciated contribution to the biodiversity of insects and many bird species.

Tree planting and appropriate species selection is also important, but the greatest losses of habitat that Cambridgeshire has suffered have been of lowland florally rich grassland. This is a more appropriate target for river corridors than extensive tree planting. If trees are planted close to watercourses, they often bring added management problems especially when they fall or are felled. It is possible to plant traditional willow species for pollarding, where there are cattle, but such plantings do need a commitment to enduring cycles of management. Again, is that enduring commitment to care built into the planning?

SPT/AW/BH

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Appendix

Our website <https://camvalleyforum.uk/> provides links to further information, including:

The Government's proposed strategic priorities for OFWAT: <https://camvalleyforum.uk/wp-content/uploads/2021/10/CVF-response-to-Defra-strategic-guidance-to-OFWAT-15-10-21.pdf>

Green infrastructure (July 2020): <https://camvalleyforum.uk/wp-content/uploads/2021/02/Cam-Valley-Forum-Green-Infrastructure-response-25-07-20.pdf>

Tentative proposals for a Bathing Water designation (January 2021): https://camvalleyforum.uk/wp-content/uploads/2021/02/cvf_swimming.pdf and the responses to that consultation: <https://camvalleyforum.uk/wp-content/uploads/2021/03/Cam-Valley-Forum-Responses-to-Bathing-Water-Proposal-08-03-21.pdf>.

Let it Flow! (May 2020): https://camvalleyforum.uk/wp-content/uploads/2020/05/Cam_Valley_Forum_Let_it_Flow_Full_report_26-05-20-compressed.pdf