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## **NORTH EAST CAMBRIDGE AREA ACTION PLAN.**

Thank you for your recent consultation on the Draft NECAAP.

We have the following comments, informatives and recommendations to offer under their individual water topic headings.

In summary, we find that the plan presents some significant risks and opportunities.

From a flood risk perspective it presents a potential betterment, and the LLFA will guide Greater Cambridge on this.

The plan will be delivered at a time when we expect weighty pressures between supply and demand for water in and around Cambridge. The Integrated Water Management Study (IWMS) will need to consider the capacity and timing of the NECAAP and ensure that sufficient controls are in place to ensure that sustainable water supplies are in place for NECAAP and its respective phases. Monitoring may form a part of this depending on the progress of current work on wider growth and water supply.

For water quality there are some significant risks that will require detailed investigation and analysis for land contamination. These are likely to need to occur before a detailed SUDS plan can be drawn up, which in turn may influence layout.

The plan provides a unique opportunity to significantly improve water quality, amenity and thus further neighborhood integration in the vicinity of Fen Road, Chesterton.

### **Environment Management:**

#### **Water quality /wastewater.**

The policy states that a water quality risk assessment will be required and secured through a planning obligation and developers will need to demonstrate that proposed developments will have an adequate supply of water.

The policy will need some clarity as we do not understand what it is achieving, requiring or saying. This is probably best discussed then we can advise on wording.

“A Water Quality Risk Assessment will be required and secured through a planning obligation to identify foul sewage, surface water and groundwater on surface and groundwater systems and consider appropriate avoidance measures before incorporating appropriate mitigation measures including works to the First Public Drain where necessary.”

### **Water Resources.**

The AAP lies within the area historically supplied by Cambridge Water. The location of developments should take into consideration the relative availability of existing developed water resources. The timing and cost of infrastructure improvements will be a consideration.

The water companies have recently produced water resources management plans (WRMP), which set out how the companies will maintain customer supplies over the period 2020- 2045. WRMPS show how companies will provide sufficient supplies to meet existing growth plans. This includes how strategic schemes may contribute to this, along with reducing demands and leakage. We advise that councils consider the viability of supplying new developments in the relevant part of the plan period and how the phasing of growth links to the timings of the planned new strategic schemes.

### **The Anglian River Basin Management Plan.**

<https://www.gov.uk/government/publications/anglian-river-basin-district-river-basin-management-plan>

considered the status of all rivers and aquifers in the Region. This showed many waterbodies did not have the flow required to support the ecology and groundwater units not meeting ‘good status’. Given the pressure the chalk aquifer faces, we cannot rule out future further reductions in the supplies available to water companies to prevent deterioration of the water related ecology. The council should seek the water company’s assurance of how it can meet the needs of the AAP’s growth without causing deterioration.

The Environment Agency determines that current levels of abstraction are causing environmental damage. Any increase in use within existing licensed volumes will increase the pressure on a system that is already failing environmental targets.

We support the AAP considering water resources as a key issue and the councils further informing the plan with an IWMS. This work seeks to address, amongst other things, the potential for growth to lock in any long term increases in abstraction, and to offset this with sustainable supplies. The IWMS will take into account commitments in the area, the wider effect of growth and the overall influences on the supply and demand for water including climate change. Where there is a shortfall in supply that would risk reliance on new abstraction, the plan needs to identify where the additional water would come from (i.e. other supply sources, leakage reduction or existing demand reduction). The LPA will need to be satisfied it could be supplied in line with the site’s phasing.

We endorse the use of water efficiency measures in new developments provided these have a clear and realistic framework for delivery and upkeep.

All new residential developments are required to achieve a water consumption limit of a maximum of 125 litres per person per day as set out within the Building Regulations &c. (Amendment) Regulations 2015. We are supportive of Cambridge Water aiming to set the highest possible standards for water efficiency with reference to 80 litres/person/day for residential development, but would need to see how this would be achieved before it could be relied upon.

#### **More specific comments on section 4.**

We also note that Paragraph 149 of the NPPF places a duty on local planning authorities to adopt 'a proactive approach to mitigating and adapting to climate change, taking into account long term implications for flood risk, coastal change, *water supply, biodiversity and landscape*' [our emphasis].

Further to this the Environment Agency supports 'early consideration of integrated approaches to water management that considers not just flood risk but also water resource availability' as stated on pg57. However the completion of a IWMS/Water cycle strategy alone may not be enough to satisfy Water Resource (and hence public water supply) issues. We anticipate that policy 4 will need further measures to secure sustainable supplies and reduce demand from the development.

The statement pg. 57 that 'policies reflect concerns in relation to demand and water stress including climate change' is not yet evidenced to a sufficient degree - although it is clear that this is their aim. This is covered in more detail below.

#### **Water management policies:**

##### *4a water efficiency*

The EA appreciates the fact that water efficiency is a key priority for the new development. Whilst the NPPF/NPPG does not allow for councils setting a more ambitious mandatory target than 110l/p/d, developments will aim for an efficiency of 80l/p/d in residential settings and will aim to 'minimise water use as far as possible'. It also encourages water reuse such as rainwater harvesting and grey water recycling.

Whilst we consider these necessary aims, policy 4a on water efficiency needs to be taken in the context of supply options and new development of this size. The overwhelming fact remains that the AAP will require a significant increase in overall public water supply from existing levels.

##### *Policy 4b 'Water quality and ensuring water supply'*

This includes: 'councils will expect developers to demonstrate all proposed developments will be served by an adequate supply of water'.

This 'adequate supply of water' needs to be qualified and redefined in sustainability

terms. At planning application stage, effective control via 4b would not happen because Water Companies already have an obligation to supply water to approved developments, and have regard to existing allocations. It is therefore vital that it is determined at the plan level.

The timeframes for the water demand on the AAP site are relatively long given that the relocated Wastewater works would need to be operational before the existing works can be decommissioned, demolished, remediated and redeveloped. This may put the AAP redevelopment in the middle and latter part of the local plan period.

The question of whether there are reasonable prospects for an environmentally sustainable supply of water during this period needs to be considered holistically at plan assessment stage and through SA/SEA. That should inform a suitable policy to be put in place to secure sustainable supplies prior to outline planning permission/permission in principle.

Whilst the IWMS process is welcome, it still needs to address the picture of infrastructure delivery and cumulative growth in the middle and latter parts of the local plan period. Large Strategic schemes to supply sustainable new water are being considered by projects such as Water Resources East. However these schemes to develop more sustainable public water supply options in the area are a relatively long way off being planned and delivered. WRE and water companies are still exploring options at this stage. Until more strategic schemes are brought on-line, Cambridge Water Company (CWC) currently appear likely to remain dependent on groundwater abstractions, mostly from the chalk aquifer.

Water company Water Resource Management Plans (WRMPs) set out how the water companies plan to supply water for the period 2020-2045. These plans do not take into account further potential reductions in existing licensed quantities which cannot be ruled out, due to the over abstraction of the chalk aquifer and potential for further knock on impacts on chalk streams and related ecology. Natural England will lead advice on ecology initially looking at SSSIs and Natura 200 sites. This may lead on to further liaison with the Wildlife Trust and other local designation site managers.

We note that CWC's current WRMPs place substantial reliance on reduction in leakage and demand management to meet immediate growth demands without increasing overall abstraction.

We consider that achievability of this will depend on the actual rate of wider growth and the effectiveness of those measures. We therefore advise that the balance of water company supply and growth demand needs to be addressed in the IWMP, then monitored and reviewed for the NECAAP. It would be particularly helpful for the NECAAP if water were planned strategically across boundaries with other growth planned in the area across Cambridgeshire, Peterborough and adjacent North Herts, West Suffolk and Uttlesford. This wider scale work (broadly covering the Cambridgeshire and Peterborough Combined Authority area) would significantly narrow the risk margin caused by understudied supply and demand pressures

outside the plan area.

When the risk margin is sufficiently narrowed, it should be possible to add a policy 4b along the lines of:

‘councils will expect developers to demonstrate all proposed developments will be served by an adequate supply of water that is demonstrated to have a positive or neutral impact on the water environment’.

### **Groundwater & Contaminated Land (GWCL)**

It is also noted that the majority of the development will be on brownfield sites, so we offer some informative advice below that would apply to developments on brownfield sites.

#### Land Contamination

Potential land contamination should be given due consideration very early in the site design process. Policy 4b currently requires that this is looked at ‘prior to commencement’. We advise that stage is too late to inform the location and design of SUDS and any associated Green infrastructure. The policy as it stands risks SUDS becoming ‘grey SUDS’ i.e. using concrete and tanks in areas that may turn out to have contamination. For land that may have been affected by contamination as a result of its previous use or those of its surroundings, we would expect as a minimum to be provided with a Preliminary Risk Assessment (PRA) demonstrating that the risks to controlled waters are understood and can be addressed to a level compatible with SUDS and other future land uses. Any land contamination investigations should be carried out by suitably qualified and experienced professionals, and in accordance with relevant guidance and standards. Piling or other ground improvement methods could have an adverse impact on groundwater quality.

#### Sustainable Drainage Systems (SuDS).

We support the use of infiltration SuDS for surface water disposal where they do not present a risk to controlled waters. This will require some up-front PRAs and any investigations to confirm the suitability of infiltration SuDS to meet criteria in relevant Groundwater Protection Position Statements. SUDS must not be constructed in contaminated ground where they could re-mobilise pre-existing contamination and cause pollution of groundwater. Infiltration SuDS require a minimum of 1.2 m clearance between their base and peak seasonal groundwater levels. Infiltration SUDs greater than 2.0 m below ground level constitute a deep system and are generally unacceptable. Appropriate pollution prevention measures and run-off from these areas should pass through a suitable number of SuDS treatment train components.

We suggest that policy 4b is amended to require:

Prior to commencement of the layout of the development being determined, the potential for contaminated land (both human health and controlled waters) shall be comprehensively characterised, investigated where appropriate and risk assessed including the consideration of remediation as necessary having regard to the proposed end uses.

## Sustainability report final July 2020.

### Policy 4a water efficiency

SA Objective 3: 'protect and where possible enhance the quality of the water environment'

SA objective 8: reduce vulnerability to future climate change effects.

It is noted that the preferred policy may help promote greater water efficiency for non-residential water use across the site and consideration of water recycling and grey water recycling is welcomed. However given constraints in the Building Regulations, the report acknowledges that it will not necessarily change the residential use as this is set by the local plan and can't be set below 110l/p/d for mains water use.

It is unclear as to why *significant* positive effects are expected against objective 3 for both the preferred policy and the existing policy as more water overall will be taken from the Environment as a result of this development. Measures to promote/require greater water efficiency and water quality improvements are welcomed, but are unlikely to be overall significant benefit on their own unless considered in parallel with a new Wastewater works which is still be planned and probably cannot be considered.

For the preferred policy '*Minor positive effects are expected against SA objective 8 as improving water efficiency will help adapt to lower water availability which is likely to occur as a result of climate change*'

As above, although water efficiency measures are welcomed, any positive impact this may achieve will be very small in context of more water being needed overall as a result of the development locking in new water consumption. This will therefore be a negative score.

Paragraph 47 policy 4b water quality and ensuring supply:  
(same objectives SA 3 and 8 as for policy 4a).

*'the preferred option is expected to have significant positive effects on SA objective 3.....The policy states that a water quality risk assessment will be required and secured through a planning obligation and developers will need to demonstrate that proposed developments will have an adequate supply of water.....'*

Whilst water quality aspects could have a positive effect on water environment (see Fen Road opportunity below), we disagree that the current 4b's requirement for developers to demonstrate that proposed developments will have an adequate supply of water, will ensure that this water comes from an environmentally sustainable source. See our suggestion under 4b to link this to environmental protection.

### **Flood risk:**

Overall we regard this as a positive document for flood risk management and lays a framework for sound design. Small changes may improve this document's ability to result in flood risk reductions. We are unlikely to be directly involved in the flood risk aspects of this development area as it is currently within flood zone 1 (low risk) on our national flood mapping.

### **Sequential approach.**

In our response to the previous issues and options we raised the matter of the flood risk sequential test and the extent to which the plan would need to demonstrate its impact on reducing risk by potentially displacing the Wastewater Treatment Works (WwTW) from a site in flood zone 1 to a site at higher risk. Since then Anglian Water has released a public consultation with relocation site options. These are all as substantively in flood zone 1 as possible for a site of that size. Obviously if the options and chosen site remain as such in flood zone 1, there would be no need for the NEC AAP to further demonstrate a sequential test. A sequential approach process would need revisiting if this changed.

### **Specific comments.**

#### **Policy 2: Designing for the climate emergency.**

##### g. Futureproofing.

There would be benefits in widening this section to include future proofing measures to combat the impacts of climate change rather than just the causes of it.

#### **Policy 4c: Flood Risk and Sustainable Drainage.**

Part a, we would recommend that this is worded stronger i.e. peak run off rates should be set as low as is technically feasible but not higher than greenfield run off rates.

We would also recommend that the policy considers the volume of water discharged and how quickly it starts discharging from the time it rains.

There also needs to be a balance between reducing the impacts of floods and ensuring that rainfall in summer months help relieve water stress within the local watercourses

Part e refers to a Strategic Flood Risk Assessment, we assume this is meant to refer to a site specific flood risk assessment.

Parts f and g aren't written very clearly and, for the most, part replicate the NPPF requirements. Given that the area designated within the area action plan is wholly within flood zone 1 of the Flood Map for Planning (rivers and sea), the focus of the flood risk policy should be on other forms of flood risk and how the proposals contributes to offsite flood risk and its mitigation.

The Policy refers to 'surface water wet spots' but doesn't appear to define what constitutes a wet spot?

#### **Environment Management and enhancement opportunities (Policy 5):**

Fen Road Chesterton lies just outside the boundary of the NECAAP, directly to the east of Cambridge North Station. The length of Fen Road, to the north of the railway line is not served by mains foul sewer. The site consists of a number of industrial units, a few houses and several travelers' plots comprising of permanent travelers' homes and caravans. The travelers' site has been growing in size and has been in existence for around 50 years, possibly longer.

The Fen Road site is currently served by several small unpermitted package treatment plants and one permitted package treatment plant that is not large enough to be routinely sampled by the EA. The drainage in the area appears haphazard and

we believe is unmapped. It is likely that some of these treatment plants are not working effectively and that poorly treated sewage is being discharged into the River Cam and into a boggy area by the side of the tow path. Pollution has also been found in local ditches. Over the years there have been a number of reports of foul sewage from Fen Road discharging into the river Cam, causing chronic ongoing pollution. There have also been reports of pollution from business on the Cave Industrial Estate.

Historically a lot of effort was made to try and connect the site to the mains foul sewer. Anglian Water resisted connecting the site on the grounds that the site was “temporary”. We recall this issue went to legal review at the time and Anglian Water’s position was upheld.

In 2013 Cambridgeshire County Council approved Fen Road as a permanent travelers’ site. There are several brick built business units on Cave Industrial Estate and several permanent travelers’ homes. Whilst it is difficult to see how Anglian Water’s previous stance could still be valid, Anglian Water may now welcome intervention to compliment the major improvements in water quality being delivered (in a large part by Anglian Water) throughout the whole River Cam catchment.

In any event, the relocation of Milton sewage works and the redevelopment of North East Cambridge presents the best foreseeable opportunity to incorporate mains drainage connection into the Fen Road site. The site is the only sizable location within Cambridge that is not connected to mains drainage. Unaddressed it will continue to be a source of ongoing local water quality and environmental health problems in the River Cam vicinity for the foreseeable future. Protected species such as water vole will likely be affected given their presence and the vulnerability of their habitat and food chain to this type of pollution. In respect of amenity and the public realm, it has visual and more widespread odor impacts for existing and prospective occupants of homes and businesses. Whilst we do not seek to evaluate matters outside EA’s core expertise, we note that addressing these impacts may also be an opportunity to enhance local public relations with Anglian Water and further wider social cohesion with Fen Road residents.

In support of this proposition, we note that the North East Cambridge Area Action Plan lists Biodiversity and Green Spaces as one of the key themes of the redevelopment. The MKA Biodiversity Assessment identifies water voles as being present, and under pressure. The plan recognises that the River Cam is a County Wildlife Site and that current pressures have led to reduced flow in the river, impacting wildlife. The Action Plan states that both councils recognise the pressures on the environment and want to explore how more can be done to enhance the green infrastructure network and achieve Biodiversity Net Gain. SA Objective 3: ‘protect and where possible enhance the quality of the water environment’ and SA objective 8: ‘reduce vulnerability to future climate change effects’ are both relevant.

The Environment Agency therefore submits that here is a strong opportunity (in policy and outcomes on the ground) to work with the site owners on a matter that they have relevant expertise, resources and strategic benefit in addressing. This



action may work best if it is set out and agreed prior to land transactions so that there is join up with any obligations on previous and future owners of relevant land, where relevant.

We propose a change to policy 5 as follows:

4. Delivering coordinated habitat and water quality improvements to the First Public Drain, Milton Country Park, and Chesterton Fen and the River Cam related to foul drainage improvements serving land uses in the vicinity of Fen Road, Chesterton;

We are happy to clarify the above.

Yours faithfully

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