Carbon Neutral Cambridge response to proposal to relocate Cambridge Waste Water Treatment Plant, 14/9/2020

https://carbonneutralcambridge.org/



How would you describe your interest in the proposed CWWTP Relocation project?

Response: Local Interest Group

Which site area or areas are you commenting on?

Response: Our comments relate to all three sites.

What things relating to this site or sites are most important to you?

Response: Climate change is our principal concern but the other areas all need due consideration, including water quality and the likely future scarcity of water due to climate change and over abstraction.

Which site area do you think is the most suitable for the relocation project?

Response: None of these.

We question the need to relocate the water treatment works

What is your opinion of our proposal to relocate and build a new modern, carbon-efficient waste water treatment plant, to enable the regeneration of NE Cambridge?

Response: Very negative. Grand words, but the reality isn't living up to the words.

As one of the largest users of power in the East of England, we are pleased to see that Anglian Water has set a target of being Net Zero Carbon by 2030. As construction accounts for about 15% of the AW carbon footprint, it's also good that you're being thorough by including both operational and capital emissions in this target. But we now have a good opportunity to see if this ambition is real.

While making nice claims about aiming to be more modern and carbon efficient, the primary reason for the move is to release the land for housing. This housing will itself increase carbon emissions and water use, unless very high "Net Zero emission" standards are required for both the move and the new housing.

It makes little sense to relocate the treatment works to greenbelt land, in order to build on what has now become brownbelt land.

Are there any other factors that you think we should have considered in the site selection process or that should be considered in making our final site selection?

Response:

How to be genuinely Net Zero Carbon.

We were very disappointed that carbon emissions were only considered when comparing the pumping energy for the different sites, rather than comparing the true change in total carbon emissions from construction and operation of the various options. These carbon emissions MUST be considered and consulted upon in future stages of the consultation.

The problem is that unless you demonstrate serious ambition, the construction and operation of the new plant will make it harder to get to Net Zero Carbon.

Pumping the sewage to the new site will clearly increase energy demand. Although a more modern Treatment Works should require less energy to run and the steady decarbonisation of the electricity grid will help, there will be important choices to make about how to get to net zero, and these will have impact on public acceptability

You could install huge areas of PV, either on land or on water. You could scale up anaerobic digestion. You could install massive batteries to allow you to use and trade renewables more efficiently. You could use natural treatment methods to allow you to use less concrete and steel to construct the new works. We would support all these measures.

But there are still likely to be some net emissions. These should be "offset" by investing in carbon sequestration measures in the catchment.

For example, you could offset some by paying farmers and land owners for plant tree-planting in the catchment. Trees will absorb carbon emission and help clean up agricultural phosphates: a damaging pollutant that costs you a lot to remove. This seems like a nice "win-win" solution but will need a LOT of trees, so the primary focus will have to be on reducing emissions from operation and construction

Another, attractive solution is to use natural treatment processes, such as reedbeds and wetlands to reduce the need for the traditional tanks and concrete. We are impressed by the way these have been used very successfully at the Ingoldisthorpe Water Treatment Works in Norfolk, where you proudly say that it "vastly reduc[es] our carbon footprint, costs and most importantly, enhance[es] the local environment and ecosystems."

We understand that it may be difficult to replicate this at sufficient scale to replace Cambridge's Water Treatment works, but would like to see this explored. We also suggest that there are many opportunities to create a series of small wetlands to replace or supplement small water treatment works along river corridors in the catchment. This could be particularly valuable for Treatment Works that aren't due to have P stripping in place for a decade or more.

These small local treatment works could help you reach Net Zero Carbon, improve water quality, and provide attractive habitats for nature.

A 2017 <u>report</u> for DEFRA by the Centre for Ecology and Hydrology, Bangor stated that: "Conservation managed lowland fens appear to be among the most effective carbon sinks per unit area in England and Wales, whereas lowland peats under intensive arable agriculture in England are probably the UK's largest land-use derived source of carbon dioxide emissions."

The Wildlife Trusts are partners in a project working to measure carbon sequestration by wetlands https://www.greatfen.org.uk/blog/guest-post/carbon-balancing-act and https://www.greatfen.org.uk/big-ideas/capturing-carbon

We are aware that, in addition to the local Wildlife Trust, there are many other landowners and conservation organisations that would welcome partnerships to create these local wetlands in the catchment

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