



Dacorum Environmental Forum
Full Meeting via Zoom Thursday 10/02/2022

MINUTES

Attendance

Name	Organisation
Gruff Edwards	Chair DEF
Steve Wilson	Vice Chair DEF
Mike Ridley	DEF and Friends of Halsey Field
Chris Ridley	DEF and Friends of Halsey Field
William Wyatt-Lowe	former DBC and HCC
Robin Bromham	Hemel Resident
Sherief Hassan	Hemel Resident
Martin Hicks	Hertfordshire Ecology
Cllr Brian Patterson	Tring Town Council
Katy Tyssen	DEF and Friends of Halsey Field
Dennis Harvey	DEF
Cllr Goverdhan Silwal	DBC
Adrian Whyte	DEF, Circular Economy Specialist

Meeting started at 7:30pm

1. **Apologies etc.**

Cllr Graham Barrett, DBC Portfolio Holder for Environmental Services
Cllr. Garrick Stevens, Berkhamsted T.C.

2. **Minutes of the Last Meeting and Matters arising**

These minutes, together with updates on Halsey Field, LA3 Master Plan and Hemel Garden Communities/New Local Plan had been sent out with the agenda E-mail.

New Local Plan and Hemel Garden Communities

GE had heard from Cllr. Garrick Stevens that there is a new timetable for the NLP, and that the date for the next consultation is June 2023.

W W_L who attended the Hemel Place Board meetings on November 4th on behalf of DEF had received on January 14th "key updates on the Hemel Place work" from DBC's Growth and Enterprise Group Manager Sara Whelan. The January meeting of the Hemel Place Board had been postponed until Feb. 24th, and in the meantime he requested ideas from DEF members in order to feed back to it. To this end,

the attachments to the January 14th Place Board update will be placed on the DEF website in .pdf format alongside these minutes.

The update included a diagram showing Hemel Place Strategy's relationship to other strategies, with Hemel Garden Communities incorporated at top level alongside the Local Plan.

GE said that Hemel Garden Communities, if anywhere, should be regarded instead as one highly contentious element within the Local Plan which is currently being rewritten. *DEF Minutes 9th May 2019 refer.*

MR asked whether the term Hemel Garden Communities applied only to the site proposed in the Draft Local Plan and termed "Site Number: 74 North and North-East Hemel" (5000 dwellings in Dacorum) or to the whole of Hemel Hempstead.

GE said that was the former. *This was the impression gained when DBC Assistant Planning Director James Doe addressed DEF on the subject in May 2019, since the Crown Estate, owners of Wood Farm had been founder members of the business consortium convened to promote HGC in 2018. The DBC Website states "Hemel Garden Communities, an ambitious development programme that will transform Hemel Hempstead and create attractive and sustainable new neighbourhoods and communities to the north and east of the town, has provided Hemel Hempstead with Garden Town status."*

MH said that Hemel Garden Communities was a spatial vision that referred to all of Hemel Hempstead, and would provide the context within which new developments will sit.

GSI supplied this relevant link to the HGC page on DBC's website:

<https://www.dacorum.gov.uk/home/planning-development/planning-strategic-planning/hemel-garden-communities>. *The site referred to describes HGC as supplying over 11,000 homes, and the outline map showing its extent does indeed cover Hemel Hempstead and its surrounds.*

Regarding the planning application by Fairfax for a housing development next to Gadebridge and immediately to the east of the Halsey Field, (Reference 21/04508/MOA, 390 dwellings) **MR** asked on what date would the application be considered by the Development Management Committee.

SH said end of March or early April. The applicants were hoping to meet the criterion of "Very Special Circumstances" that is required for Green Belt development by saying that it would include a nursing home and that there is a local shortage of such. *(The site is Green Belt, and even the NLP does not propose to de-Green Belt it.)* A petition conducted at Rossgate against the development had accumulated over 1000 signatures. **MH** commented the proposals were speculative - in that the site had not been allocated and adopted in the Local Plan.

CR said March 31st.

3. Blue Light Concerns

GE thanked **RB** for suggesting and agreeing to introduce this topic. An invitation had been sent to County Hall for a relevant officer to participate, and although this had been declined, **GE** had received in return a long and detailed response on the subject of the transition to LED lighting in general, containing references to HCC policy decisions and to studies and standards concerning any potential consequences for energy saving, human health and biodiversity. Relevant text from this message will be placed on the DEF website as a .pdf alongside these minutes.

SW chaired the topic from this point on.

RB said that "Blue Light Concerns" rather than "Blue Light Pollution" as per the Agenda was a more nuanced title for the topic. His introduction was accompanied by a PowerPoint presentation (22 slides) and this will be placed on the DEF website as a .pdf alongside these minutes. He said that his working background was in product development, and would be similar to that of council officers charged with evaluating and commissioning light systems. New technology always brought with it a combination of risks and opportunities.

LEDs (Light Emitting Diodes) were based on relatively recent technological developments, and the science concerning their health and environmental effects was still in its infancy. These effects were likely to affect us all for years to come. Regarding street lighting there was a lot of documentation, but relatively little guidance on standards.

The splitting of apparently white-ish light into its component colours, as seen for example in rainbows which separate out the colours in light from the sun, shows different proportions of those component colours according to the type of light source. For instance some LED-generated light sources reveal a high proportion of blue light. Such "blue-ish white" light is termed "cold" according to the Correlated Colour Temperature (CCT) scale which is a measure of light source colour appearance. Paradoxically however it is the blue light that has the shortest wavelength and therefore the highest energy and the greatest potential to effect chemical change. For instance it is known to block the production of the sleep hormone melatonin in mammals. Use of this fact has been made by fast food outlets, whose profits depend on rapid turnover of customers and who therefore install "cold" lighting to keep them awake and moving on. Conversely "warm" lighting is favoured by restaurants in order to encourage customers to stay longer and spend more. The now largely replaced sodium lights contained just the observed yellow, with no "hidden" blue or red. Daylight consisted of an approximately even mix of all wavelengths, though there was a daily pattern, with morning daylight being the "bluest", this possibly being linked to sleep cycles via evolution. Amongst earlier artificial light sources, incandescent sources such as tungsten bulbs had very little blue component, and candles even less.

As well as the difference in "colour" introduced by LEDs there were differences in "Flicker" (oscillations in brightness too rapid to be noticeable) and "Glare" (the concentration of bright spots on the retina). Also LEDs are generally in arrays, causing unnatural multiple shadows.

LEDs can be designed for various colour contents, the "high blue" variety was invented some years ago, but use of phosphorus and/or other materials used to coat the diode can be made in order to change from blue to yellow (i.e. towards the red end of the spectrum). However, this made them more expensive.

Hertfordshire's street lighting has a CCT rating of 4000° Kelvin, which is "cool" or high in blue. It is subject to a schedule of dimming during parts of the 24 hour cycle, principally as an energy saving measure. In addition "trimming" is used in order to avoid illumination in unwanted directions. This is achieved using plastic mouldings. A further method of reducing street lighting pollution would be to use "intelligent LED road studs" at ground level, which more effectively restrict illumination to the road surface.

The Chief Medical Officer's report (2017) stated that 24 hour lighting may have an effect of flora and fauna. The biological mechanism whereby this might occur had been identified in 2001. RB's contacts in the industry continued to have concerns over the topic. Conversion of LED's to nearer the red (lower energy) end of the spectrum was technically easy. "Redder" lights had been used in a trial in Worcestershire, and had proved beneficial to wildlife.

A recent satellite study had shown that in Dacorum the Buncefield area was a major source of light pollution. Such findings should become a "metric" for planning and wildlife policy purposes.

The effects of all these changes on humans and the natural world in general were quite subtle and hard to interpret. For instance one might observe an increase in the number of insects hovering round an LED lamp compared with its predecessor, but this could be interpreted as an increase in the insect population and therefore a good thing, or a fatal attraction which would be a bad thing. By way of analogy, a common observation in the vicinity of oil rigs was of seabirds lured to their doom by the light of gas flares. It was also possible that the navigational skills of other species were affected by light sources.

LEDs themselves were much lighter than fluorescent and incandescent lamps so there had been an opportunity to reduce the energy required to manufacturing the lamps and their replacements. However this opportunity appeared to have been missed as typically a street light lamp head weighs around 10Kg.

SW then asked for questions and comments. Here they are interwoven with "Chat" posted during the Zoom session.

MH said that a work colleague of his, together with DBC Planning officer Nigel Gibbs had been at the forefront of putting lighting, with particular reference to Dacorum, onto the national agenda in respect of ecology several years ago, alongside the Campaign for Dark Skies and advising the Institute of Lighting Engineers (now Professionals). He (MH) had subsequently presented to ILE and Countryfile relevant groups on the subject of light/wildlife interaction. Key issues were light "spillage", glare from point sources and reflected light, which occurred especially in cloudy or foggy conditions. LEDs were more visually intrusive than the preceding sodium lamps, but at the same time more controllable in respect of timing and direction. All outdoor lighting, being an artificial introduction, affects nocturnal ecology such as insects, birds etc... Bats were nocturnal and fed on nocturnal insects. Some bat species were actively deterred by lighting while others took advantage of insects attracted to light. The wider ecological intention was to reduce the overall impact on natural processes. Anything that affected the behaviour of these by introducing an artificial aspect into the local environment was unnatural and represented more pressure on natural ecosystems. Estimates of the consequences of – and detailed designs for - new lighting introduced by any proposed development should form part of the planning application. There were currently no 'Areas of Tranquillity' in Herts. Lighting should be included as one of the issues used to define them. The understanding of light pollution and measures to control it had progressed significantly over the last 25 years, but the demands for floodlighting by society had also increased substantially.

AW said that there had been a reduction in the number of bird deaths since 2015, with the commonest cause being window strikes, followed by cats.

RB suggested pesticides as another major cause.

BP asked whether the effect of private sites like that at Buncefield was being assessed in the same way as public street lighting.

RB said that it should be possible to measure industrial floodlighting, and that such sites should be set objectives.

MR suggested that, since all vehicles had good headlights, if all pedestrians could carry torches at night there would be no need for street lights at all.

SW said that when HCC started reducing the hours that street lighting was on, the majority response from the public was negative.

WW-L doubted whether people would feel sufficiently secure with only torches to light their vicinity.

SH asked whether there was any data on the current deployment of "red" LED lighting. Could "red" be made the standard?

AW said that scaling up "red" lighting might run into problems of supply for some of the chemicals required to coat the LEDs.

RB said that for instance Indium was a rare resource.

4. Any Other Business

SW said that the Environment Agency's plans to re-route the river Gade in Gadebridge Park etc. (Application 22/00143/MFA) would be considered by Development Control on March 31st.

CR said that the AGM of Friends of Halsey Field would be on March 18th.

Remaining Dates for 2022:

Steering Group: 22nd March, 28th June, 4th Oct.

Main: 12th May, 15th Sept., 17th Nov.

Dates for the main meetings have been booked at the fire station in case their Meeting Room should again become available.