From:	Richard Cowen
To:	Byers Gill Solar
Subject:	Fwd: Solar arrays
Date:	25 July 2024 08:00:03

Jen

I am not sure whether this is considered to be relevant to Byers Gill (although I have mentioned it in the email below) but it is a matter that does concern me and I am wondering how to address it

If you don't think it is relevant, please let me know

Richard

---------- Forwarded message ---------
From: **Richard Cowen** [redacted]
Date: Thu, 25 Jul 2024 at 07:55
Subject: Solar arrays
To: [redacted]

Can you please tell me if there has been any research undertaken to show whether solar arrays do or do not have any impact on birds?

My membership number is R139946 and I take part in various projects. I also consider planning applications to see if they may have an impact (beneficial or otherwise) on birds (and biodiversity generally).

I live in Durham and recently there have been a number of planning applications for solar arrays - perhaps a surprise in the North East of England. Most I have decided (rightly or wrongly) are likely to have a limited impact on birds - although I have sought to get biodiversity net gain issues improved.

Some however have caused me concern. These are arrays that are proposed near water features known to host waterfowl.

In a recent appeal involving a site at Sheraton in County Durham, I quoted from a website favourable to solar arrays. In my letter, I stated

"In my letter on behalf of the Club, I also referred to the potential for birds flying from the coast to Hurworth Burn Reservoir mistaking a solar array for the reservoir itself. As far as we can see, this issue remains unaddressed. Given the importance of Hurworth Burn Reservoir for waterfowl and gulls as well as waders, I continue to represent that this is an important issue.
The Freedom Solar Panel website (freedomsolarpower.com/blog/everything-you-need-to-know-about-solar-panels-and-birds) does contain the following comment

> "Solar panels do not kill birds outright.
> However, birds are attracted to the shininess of solar panels, which often look like moving water when flying above. Some birds mistake panels for bodies of water and try to dive into the "water," which hurts or kills them.
> Many researchers have noted birds that try to dive into solar panels are

aquatic species.
Folks with solar systems in residential areas that aren't too close to large water bodies won't experience this issue, but it's still a possibility. Researchers are using AI to track and monitor which bird species dive into solar panels to prevent the problem"

The Reservoir is close to this site. Aquatic species visit it in some numbers. We believe that this comment, from a body representing suppliers of solar panels, supports our concerns, although we accept that they should not be exaggerated."

That appeal has now been decided and the Inspector stated

"Ecology and Biodiversity

105. The proposals are supported by a Biodiversity Management Plan which sets out the measures to provide enhanced biodiversity. The proposed development would provide an overall Biodiversity Net Gain (BNG) of 22.23% in area derived units and 25.56% in linear derived units.

106. I also note that neither the Council nor Natural England have raised any objections to the proposal, subject to relevant planning conditions and a Section 39 agreement (Wildlife and Countryside Act). The appellant has entered into a Section 39 agreement with Durham County Council which requires the submission of a Biodiversity Scheme and Management Plan to the Council for its approval.

107. In this regard I find that the BNG and the s39 agreement is a benefit of the scheme that attracts significant weight.

108. Hurworth Burn lies to the west of appeal site A. There are concerns that birds flying between the Burn and the coast to the east would mistake the solar arrays for bodies of water and fly into them, causing the birds harm. I have very limited evidence before me that this is more than a perceived risk."

Paragraph 108 of that decision is, from this point of view, the most important and what perhaps we need to clarify.

We note that Natural England did undertake some research in 2016, when solar arrays were starting to feature on the British landscape. However, in the Executive Summary, they state

"Around 420 scientific documents with potential relevance to this review were identified using tailored search strings and subsequently screened for evidence relating to the ecological impacts of solar farms. The majority of these documents were of no relevance, and were returned by the literature search due to irresolvable linguistic and conceptual ambiguities. These documents were not considered further."

and then stated

"No peer reviewed experimental scientific evidence exists relating solely to the ecological impacts of solar PV developments."

and, later, it states

"Indirect evidence of bird presence is often presented in the engineering literature, where designs for solar panel cleaning devices often cite bird droppings as a contaminant.

Solar panels have the capacity to reflect polarised light, which can attract polarotactic insects, which has the potential to impact their reproductive biology. The polarising effect of solar panels may also induce drinking behaviour in some bird taxa, where the birds mistake the panels for water.

Birds and bats should be assessed by taxon or guild, with different behavioural traits and habitat

requirements taken into consideration. The potential for solar developments to attract or repel birds or bats should be considered, alongside the potential for negative interactions to occur between these taxa and solar farms."

I am presently considering an application submitted by Sunderland Football Club to South Tyneside which is located on land adjacent to their Academy. However, the site has attracted numerous water birds and, this year, Avocet have nested there. It is close to an important water feature (Boldon Flats) that attracts numerous water birds and lies between that site and the coast.

I am also now involved in a Nationally Significant Infrastructure Project, the Byers Gill Solar Array, situated in Darlington. The site is within 9 km of another important water feature, Castle Lake at Bishop Middleham. This general area may well also attract more birds in the future as a result of the Discover Brightwater project and proposals for the Bishops Fen

We discussed this matter at our RSPB Group meeting last night. A question was raised as to how this may be monitored, say, at the Sheraton site that was allowed on appeal.

So, especially as I have live applications to consider, and bearing in mind the comments of the Inspector in the Sheraton appeal, I would like to know

1) Is there any up to date research which does show the impact of solar arrays on birds, particularly when situated near to important water features?

2) If so, what does the research show?

3) If there is no such research, is any proposed?

4) In general, should there be a monitoring condition to seek to assess whether solar arrays do or do not have an impact in such situations?

Thank you for your time.

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Richard Cowen

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Richard Cowen