Memorandum

To: Consultee Access

From: Sophie Milburn

Date: 07/03/2023

My ref: Proposed Solar Farm To The West Of, Berrington, Shrewsbury - 22-04355-FUL 07.03.23 SM

Your ref: 22/04355/FUL

Consultation on planning application: Proposed Solar Farm To The West Of, Berrington, Shrewsbury, Shropshire – Erection of an up to 30 MW Solar PV Array, comprising ground mounted solar PV panels, vehicular access, internal access tracks, landscaping and associated infrastructure, including security fencing, CCTV, client storage containers and grid connection infrastructure, including substation buildings and off-site cabling

SC Ecology do not currently have enough information to conclude that the loss of skylark nesting habitat can be adequately mitigated/compensated for.

It is well documented that skylarks avoid edge habitats in order to reduce predation. The mapped territories clearly show the skylarks' preference for areas away from the site edges. Some examples are:

- 'Skylarks have evolved to rely on secrecy and vigilance to avoid predation. Edge habitats are used by predators for hunting and cover (Donald 2004), so when selecting nest sites, skylarks require long, unbroken sightlines (Wilson et al. 1997). Tall structures such as trees, buildings or tall hedgerows all cause even optimal habitat to be avoided (Donald et al. 2001), unless the field area is particularly large (Whittingham et al. 2003). One study estimated the effect of dissuasion by tall structures to span approximately 200 m (Oelke 1968)' (CIEEM In Practice, September 2022)
- 'Avoids areas close to vertical structures such as woods, hedgerows and buildings.'; 'Skylarks are characteristic ground-nesting birds of open temperate and boreal habitats.'; 'Being vulnerable to nest predation (e.g. from corvids), the species avoids areas close to woods, hedgerows, single trees and other vertical structures (Petersen 1996, Donald et al. 2001b)' (*MANAGEMENT PLAN for SKYLARK (Alauda arvensis) 2007 –2009 Technical Report - 006 – 2007* Natura 2000)
- 'Skylarks occupy open fields to avoid predators. They cannot be conserved by measures taken within 10 metres of the field boundary' (https://www.rspb.org.uk/our-work/conservation/conservation-and-sustainability/farming/advice/helping-species/skylark/)
- 'Skylarks can be found on most areas of open farmland, preferring larger arable and grassland fields. The open areas are chosen to allow sightings of potential predators' (https://www.bfbc.org.uk/bird-profiles/skylark/)
- 'tall structures such as hedgerows and woodland edge reduce the area of a field that Skylarks will use' (*HABITAT SELECTION AND BREEDING SUCCESS OF SKYLARKS Alauda arvensis ON ORGANIC AND CONVENTIONAL FARMLAND* (BTO Research Report No. 129, Jeremy D. Wilson & Stephen J. Brown (October 1993))

- ‘skylark plots need to be 16-24 metres square and positioned away from field edges and tramlines. Just two skylark plots per hectare have significant benefits for the birds’ (https://www.rspb.org.uk/birds-and-wildlife/wildlife-guides/bird-a-z/skylark/skylark-conservation/)
- ‘Throughout the year, the Skylark’s heritage as a steppe species is apparent in its avoidance of vertical structures, which restricts the suitability of farmland with a high density of hedgerows’ (https://www.bto.org/understanding-birds/species-focus/skylark)
- ‘To achieve the aims and deliver the environmental benefits, do not … locate plots in tramlines, boundaries and margins (as this increases nest predation)’ … ‘Avoid fields that are bordered by trees or next to woods as this increases the risks of predator attack. Minimise attacks on nests from predators by placing plots: • away from tramlines (choosing a middle spot between two sets of tramlines works best) • at least 50m from field boundaries and margins’ (https://www.gov.uk/countryside-stewardship-grants/skylark-plots-ab4#how-to-establish-skylark-plots)

The Environmental Statement Chapter 7 Ecology and Nature Conservation (Clarkson & Woods, November 2020) carried out for Little Crow Solar Park in Scunthorpe stated the following in relation to the RSPB study: ‘Furthermore, at least three sites are known (not derived from Clarkson and Woods surveys) where skylark have been observed to be using nesting sites within arrays.’ ‘However, it should be pointed out that the above observations are generally derived from early-stage monitoring following completion of construction and as such, the effects of strong nest-site fidelity within skylarks cannot be ruled out. Such an effect may explain why a small proportion of birds remain within seemingly sub-optimal habitat following an abrupt change in suitability, therefore further monitoring data will be essential to determine long-term effects within these developments. In addition, land-use changes on surrounding land may confound or contribute to skylarks choosing to use habitats under solar parks. Consequently, it is necessary to adopt a precautionary principle and so it is reasonable to assume that the array site will support a significantly reduced number of skylark than the site currently supports.’

A recent article in the CIEEM In Practice magazine (September 2022) by Harry Fox examines issues with skylark impact assessment and mitigation. He states that ‘Even with the inclusion of amenity grassland, easements or buffers of retained habitats are likely to be incompatible with the requirements of nesting skylarks, unless very large, undisturbed and managed to promote invertebrates. For example, in preparing this article, no conclusive records of skylark nests within an active solar array were found. This includes data derived from the post-construction monitoring of over 100 solar installations in England and Wales by our company and from observations from associates in the industry.’ The article proposes a methodology to be used to calculate compensatory habitat.

The proposed Skylark Protection Areas do not provide buffers from hedgerows, trees, beehives etc. How large will these Areas be if a buffer of 50m is provided from such features?

If sufficient replacement habitat cannot be provided on the site then it will need to be compensated for off-site. If there is nearby land available in the same ownership then a field (or fields) could be used to provide this.

SC Ecology need to see a plan showing the area/s of skylark mitigation/compensation land (with appropriate buffers) and an outline of the proposed mitigation measures and management.

The Biodiversity Net Gain calculation may need to be updated to reflect the changes.

Please contact me, or one of the other Ecology team members, if you have any queries on the above.

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