



Fendyke Solar Farm – skylark mitigation strategy

1. Estimated skylark territories

The breeding bird survey in 2024 estimated eight skylark territories on or immediately adjacent to the Site, include four wholly within the site boundary (MKA Ecology Ltd, 2024).

2. Skylark plots

Consultation was undertaken with Lincolnshire Wildlife Trust to determine an appropriate strategy for mitigation, acknowledging that skylarks will not nest within solar arrays and recognising the national and county-wide concern over the potential cumulative effects of developments including solar farms on ground-nesting species such as skylark. This resulted in the development of an approach designed to maximise foraging opportunities within winter cereal crops on adjacent farmland using 'skylark plots'. Additionally, the inclusion of species-rich meadow grassland onsite will give rise to increased foraging opportunities for skylarks, with the potential to improve breeding success of pairs in adjacent farmland.

These skylark plots will be created within arable fields owned by or available to the landowners, and will be created in accordance with Countryside Stewardship management practices as set out in AB4: Skylark Plots (<https://www.gov.uk/countryside-stewardship-grants/skylark-plots-ab4>).

This guidance sets out that:

- A skylark plot should be at least 3m wide with a minimum area of 16m² that is created by one of the following methods:
 - Turning off the drill during sowing to leave an unsown plot (preferred)
 - Sowing the crop as normal and spraying with herbicide to create the plot by 31 December
- After drilling, the plots can be managed with the same treatments as the remainder of the field.
- There is no need to keep the plots weed-free but spot-treating with herbicide in April will help skylarks to access their nesting sites.
- Mechanical weeding of crops containing skylark plots will destroy any nests present and is not recommended.

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- The plots provide skylarks with suitable access to nesting habitats in winter cereal crops throughout their breeding season.
 - The plots will be maintained on an annual basis for the duration of the operational life of the development.

Plots should be least 50m from field boundaries and margins and not located in tramlines (though between them is advisable).

Plot density is generally recommended at 2 per hectare, however there is currently no known correlation between the number of skylark plots required to compensate for a given number of territories (breeding pairs). Hence Lincolnshire Wildlife Trust do not encourage a target number of plots in receptor sites but favour an area-based assessment for appropriate mitigation.

3. Skylark mitigation required at Fendyke Solar Farm

Following consultation with Lincolnshire Wildlife Trust, a draft strategy was then developed (Lincolnshire Wildlife Trust, 2024), which used the following methodology used to estimate the appropriate area required for skylark mitigation:

- Quantify the number of breeding territories in the development footprint

Eight territories were recorded on the 2024 breeding bird survey (7 at least partially onsite, four fully within the core area)

- Calculate density of territories across all skylark-suitable habitat to be impacted

$7 \text{ territories} / 42\text{ha} = 0.16 \text{ territories per ha}$

- Decide on the number of territories to be compensated

Four territories (the number fully onsite in 2024) is considered an appropriate number considering sufficient grassland foraging habitat is to be created

- Determine baseline territory density at the receptor site. If the habitat is sufficiently similar to the donor site it may be more appropriate to apply the figure calculated in step 2.

0.16 territories per ha (taken from step 2).

- Calculate the net change in territory density possible at a receptor site before and after enhancement (using average density for arable farmland 0.27/ha)

$$0.27 - 0.16 = 0.11$$

- Divide the number of territories to be compensated by the net density change figure to give the number of hectares to be positively managed to accommodate displaced territories.

$$4 / 0.11 = 36.4\text{ha}$$

Receptor site requirements

There are considerations that need to be made for the receptor site to ensure mitigation land is likely to lead to the creation of viable nesting sites. Candidate receptor fields should feature:

- Low boundary features (<2m high)
- No buildings
- A short axis of >200m

Applying these criteria to the proposed mitigation area leaves c34ha of potentially suitable land. This is slightly less than the 36.4 from the above calculations but it is considered that the creation of grassland foraging habitat should result in higher breeding success and offset this minor shortfall, which was acknowledged as a wider benefit of the proposed mitigation scheme.

4. Onsite enhancements

Approximately 42ha of grassland foraging habitat will be created which will be of higher quality than the existing arable cropland. Large areas of a botanical diverse sward will support a more abundant invertebrate assemblage which in-turn can support more breeding pairs or improve the breeding success of existing pairs (Lincolnshire Wildlife Trust, 2024).

5. Monitoring

Lincolnshire Wildlife Trust recommend regular monitoring of the receptor areas to ensure that the actions taken to mitigate the displaced territories are effective and whether any changes may be required (Lincolnshire Wildlife Trust, 2024).

The applicant is open to discussions around the detail of such monitoring to assist where reasonable.

6. References

Lincolnshire Wildlife Trust (2024) *Skylark Mitigation Strategy – Fendyke Solar Farm, Sutton St James*. Lincolnshire Wildlife Trust, UK.

MKA Ecology Ltd (2024) *Fendyke Solar Farm, Sutton St James – Breeding Bird Survey*. MKA Ecology Ltd, Cambridge, UK.

7. Appendix

Attached as separate document:

Lincolnshire Wildlife Trust (2024) *Skylark Mitigation Strategy – Fendyke Solar Farm, Sutton St James*. Lincolnshire Wildlife Trust, UK.