

6<sup>th</sup> March 2017

**SCOTTOW MOOR SOLAR LIMITED**

and

**NORFOLK COUNTY COUNCIL**

to

**NORTH NORFOLK DISTRICT COUNCIL**

and

**BROADLAND DISTRICT COUNCIL**

**AGREEMENT UNDER SECTIONS 106 AND 106A OF THE TOWN &  
COUNTRY PLANNING ACT 1990**

**TO VARY UNILATERAL PLANNING OBLIGATION dated 08 January 2015 made UNDER  
SECTION 106 OF THE TOWN & COUNTRY PLANNING ACT 1990**

**Relating to Land at Former RAF Coltishall, Lamas Road, Scottow NR10 5LR**

Gilson Gray LLP  
29 Rutland Square  
Edinburgh  
EH1 2BW

THIS AGREEMENT is made as a DEED on 6th March 2017

## BETWEEN

- (1) **SCOTTOW MOOR SOLAR LIMITED** incorporated and registered in England and Wales with company number SC488522 whose registered office is at Kirkton House, Guthrie, Forfar DD8 2TP ("**Developer**") and
- (2) **NORFOLK COUNTY COUNCIL** of County Hall, Martineau Lane, Norwich, Norfolk NR1 2DH ("**Owner**")
- (3) **NORTH NORFOLK DISTRICT COUNCIL** of Council Offices, Holt Road, Cromer, Norfolk NR27 9EN (the "**Council**"); and
- (4) **BROADLAND DISTRICT COUNCIL** of Thorpe Lodge, 1 Yarmouth Road, Norwich, NR7 0DU (the "**Second Council**" and, together with the Council, the "**Councils**").

## BACKGROUND

- (A) The Councils are the Local Planning Authorities as defined in the Act and Local Planning Authorities for the purposes of planning obligations imposed pursuant to the provisions of Section 106 of the Act.
- (B) The Owner owns the Property.
- (C) The Developer has implemented and commenced operations of the Development.
- (D) The Developer is willing to perform the additional obligations set out in this Deed.
- (E) The Councils, the Owner and the Developer agree to vary the Unilateral Undertaking on the terms set out in this Deed.
- (F) This Deed is supplemental to the Unilateral Undertaking.
- (G) For the avoidance of doubt, the covenants within the Unilateral Undertaking at clause 3.1.1 to pay the Heritage Contribution, and at 3.1.2 to give notice of the Commencement Date, have been satisfied; the Unilateral Undertaking covenant at clause 3.2.1 to agree a Skylark Mitigation Works Plan has been satisfied by way of the submission of the Skylark Mitigation Plan enclosed herein; the Unilateral Undertaking covenant at clause 3.3 is no longer necessary; the Unilateral Undertaking covenants at clause 3.2.2 and clause 4 remain in force as varied by this Deed.
- (H) The Developer has previously submitted planning applications reference PF/14/1334 and 20141667 as varied by planning applications PF/15/1292 and 20151465 for the development of the Property supported by the Unilateral Undertaking. Planning permission was granted for all the planning applications.
- (I) The Developer has submitted the Third Planning Application and the Councils require this Deed of Variation to be entered into to secure an additional period of skylark mitigation under Condition 5 of the First Planning Permission, as varied by the Second Planning Permission, and the payment of an Additional Heritage Contribution.

## AGREED TERMS

### 1. Definitions and Interpretation

- 1.1. In this Deed, the following definitions are applied:

"Additional Heritage Contribution" means the sum of TEN THOUSAND POUNDS (£10,000) STERLING as a contribution solely towards the cost of maintenance and repair of heritage assets and/or other heritage asset related activities including raising public awareness and/or engagement at former RAF Coltishall.

"First Export Date" means 26 March 2015 being the date of the first commercial export of electricity from Phase I of the Development

"First Planning Permission" means the planning permissions granted by the Councils on 09 January 2015 in respect of the Planning Application.

"Safeguarded Areas Plan" means the drawing entitled 'Skylark Safeguarded Areas' bearing reference SMS 001 attached to this Deed at Appendix 1

"Second Export Date" means 29 March 2016 being the date of first commercial export of electricity from Phase II of the Development

"Second Planning Application" means the application to vary the First Planning Permission made by the Developer to the Council under reference number PF/15/1292, and to the Second Council under reference 20151465.

"Second Planning Permission" means the planning permissions granted by the Council on 17 February 2016 and by the Second Council on 29 January 2016 in respect of the Second Planning Application.

"Skylark Mitigation Plan" means the report written by The Ecology Consultancy dated 15/07/15 with job reference number 141656 version 1, as submitted by the Developer to the Councils on 21 December 2015 as part of the Second Planning Application and as contained in the First Schedule to this Deed.

"Skylark Mitigation Strategy Addendum Report" means the report written by Riverdale Ecology entitled 'RAF Coltishall Solar Farm, Norfolk Skylark Mitigation Strategy Addendum Report for Scottow Moor Solar Ltd with references RE2016-0017 and 170101, as submitted by the Developer to the Councils on 6 January 2017 as part of the Third Planning Application and as contained in the Second Schedule to this Deed.

"Third Planning Application" means the application to vary condition 4 of the First Planning Permission as varied by the Second Planning Permission and to vary condition 5 of the First Permission as varied by the condition numbered 5 in the Second Permission made by the Developer to the Council under reference number PF/16/0841, and to the Second Council under reference 20161159 to extend the lifetime of the Development.

"Third Planning Permission" means the planning permissions to be granted by the Councils in respect of the Third Planning Application.

"Unilateral Undertaking" means the unilateral undertaking dated 8 January 2015 given by the Owner and the Developer in favour of the Councils.

1.2. Unless otherwise defined in this Deed, words and expressions in this Deed have the meanings ascribed to them in the Unilateral Undertaking and the rules of interpretation set out in the Unilateral Undertaking apply in this Deed as though they were set out in full.

1.3. Except as modified by this Deed, the provisions of the Unilateral Undertaking shall remain in full force and effect as supplemented by this Deed.

## **2. Statutory Provisions**

2.1. This Deed constitutes a planning obligation for the purposes of section 106 of the Act and is made under section 106 and section 106A of the Act, section 111 of the Local



Government Act 1972 and any other enabling powers and it shall come into effect on the date first written.

- 2.2. The obligations contained in clause 4 of this Deed are planning obligations for the purposes of section 106 of the Act and are entered into by the Developer and the Owner with the intention that they bind the interests held by those persons in the Property and their respective successors and assigns.
- 2.3. The obligations contained in clause 4 of this Deed are enforceable by the Councils in accordance with section 106 of the Act.

### **3. Variation of the Unilateral Undertaking**

- 3.1 The Developer and the Owner covenant and confirm agreement and the Councils confirm agreement that the Unilateral Undertaking is varied as follows:

- 3.1.1 the definition of 'Planning Permission' is deleted

- 3.1.2 the following new definitions are added:

- "First Planning Permission" means the planning permissions granted by the Councils 09 January 2015 in respect of the Planning Application.

- "Second Planning Application" means the application to vary the First Planning Permission made by the Developer to the Council under reference number PF/15/1292, and to the Second Council under reference 20151465.

- "Second Planning Permission" means the planning permissions granted by the Council on 17 February 2016 and by the Second Council on 29 January 2016 in respect of the Second Planning Application.

- "Third Planning Application" means the application to vary condition 4 of the First Planning Permission as varied by the Second Planning Permission and to vary condition 5 of the First Permission as varied by the condition numbered 5 in the Second Permission made by the Developer to the Council under reference number PF/16/0841, and to the Second Council under reference 20161159 to extend the lifetime of the Development.

- "Third Planning Permission" means the planning permissions to be granted by the Councils in respect of the Third Planning Application.

- 3.1.3 The definition of 'Development' is amended to read as follows:

- "means the development of the Property in accordance with the First Planning Permission as varied by the Second Planning Permission and as further varied by the Third Planning Permission"



#### **4. Covenants with the Councils**

##### **4.1. The Developer and the Owner covenant with the Councils:**

- a) to pay the Additional Heritage Contribution to the Council upon the grant of the Third Planning Permission;
- b) to implement the measures within the Skylark Mitigation Plan as supplemented and amended by the Skylark Mitigation Strategy Addendum Report in accordance with the specified timescales and, in particular:
  - (i) to undertake the grassland management and maintain restrictions to use of retained grassland within the Property and within the areas shown shaded green on the Safeguarded Areas Plan for thirty-one (31) years during operation of the Development following the First Export Date, as specified within the environmental management plan in Chapter 2 of the Skylark Mitigation Strategy Addendum Report;
  - (ii) to make provisions for off-site habitat enhancement and habitat creation for at least twelve (12) years, implementing all enhancement and creation measures within twenty-four (24) months of the Second Export Date, as set out within paragraph 3.15 of the Skylark Mitigation Plan and as specified as a mitigation strategy in Chapter 2 of the Skylark Mitigation Plan as supplemented and amended by Chapter 3 of the Skylark Mitigation Strategy Addendum Report and to ensure each component of the off-site measures is provided for twelve (12) years' duration, commencing within twenty-four (24) months of the Second Export Date, as set out within Chapter 3 of the Skylark Mitigation Strategy Addendum Report.
  - (iii) to undertake the skylark monitoring regime across the Property and the areas identified within the Safeguarded Areas Plan and to undertake monitoring of the off-site habitat areas and areas identified in the Skylark Mitigation Plan, in accordance with section 3.3 of the Skylark Mitigation Strategy Addendum Report, including monitoring surveys of the operation of the mitigation measures in years 2, 3, 5, 8 and 12 following the First Export Date and a full review of the mitigation measures in years 3 and 5 following the First Export Date.
- c) to give written notice to the Councils of the implementation of all elements of the skylark mitigation strategy and the skylark monitoring regime required under clause 4.1 b) within ten (10) Working Days of the full implementation of each requirement.

#### **5. Release**

No person shall be liable for any breach of an obligation, restriction or covenant contained in this Deed after parting with all of its interest in the Property, except in respect of any breach subsisting prior to parting with such interest.

#### **6. Determination of Deed**

This Deed shall be determined and have no further effect if the First Planning Permission, as varied by the Second Planning Permission and the Third Planning Permission:

- a) is varied or revoked other than at the request of the Owner or Developer; or
- b) is quashed following a successful legal challenge.

**7. Local Land Charge**

This Deed is a local land charge and shall be registered as such by the Councils.

**8. Notices**

8.1. Any notice or other communication to be given under or in connection with this Deed must be in writing and must be:

- a) delivered by hand; or
- b) sent by pre-paid first class post or other next working day delivery service.

8.2. Any notice or other communication to be given under this Deed must be sent to the relevant party as follows:

- a) to the Council at: Council Offices, Holt Road, Cromer, Norfolk NR27 9EN marked for the attention of The Head of Planning;
- b) to the Second Council at: Thorpe Lodge, 1 Yarmouth Road, Norwich NR7 0DU marked for the attention of the Head of Planning
- c) to the Owner at: County Hall, Martineau Lane, Norwich, Norfolk NR1 2DH marked for the attention of Head of Property Services
- d) to the Developer at: Caledon Capital Partners LLP, 7 Old Park Lane, London W1K 1QR marked for the attention of Mr David Fyffe;

or as otherwise specified by the relevant party by notice in writing to each other party.

8.3. Any notice or other communication given in accordance with clause 8.1 and clause 8.2 will be deemed to have been received:

- a) if delivered by hand, on signature of a delivery receipt or at the time the notice is left at the address provided that if delivery occurs before 9.00 am on a Working Day, the notice will be deemed to have been received at 9.00 am on that day, and if delivery occurs after 5.00 pm on a Working Day, or on a day which is not a Working Day, the notice will be deemed to have been received at 9.00 am on the next Working Day;
- b) if sent by pre-paid first class post or other next Working Day delivery service at 9.00 am on the second Working Day after posting.

8.4. A notice or other communication given under this Deed shall not be validly given if sent by e-mail.

- 8.5. In proving service by post it shall be sufficient (unless any relevant part of the postal service is affected by industrial action) to prove that the envelope containing the notice or other communication was duly stamped addressed and posted to the addresses specified in clause 8.2.

## **9. Miscellaneous**

- 9.1. If any provision of this Deed shall be held to be invalid, illegal or unenforceable the validity, legality and enforceability of the remaining provisions of this Deed shall not in any way be deemed to be thereby affected or impaired.
- 9.2. Nothing in this Deed grants planning permission or any other approval, consent or permission which is required from the Council or the Second Council in the exercise of their statutory functions.
- 9.3. Nothing in this Deed fetters or restricts the exercise by the Council or the Second Council of any of their powers.
- 9.4. On or before completion of this Deed the Owner and the Developer shall pay the reasonable legal costs of the Council and the Second Council incurred in the review and negotiation of this Deed
- 9.5. No waiver, whether express or implied, by the Council or the Second Council of any breach or default by the Owner and the Developer in performing or observing any of the obligations arising from the Unilateral Undertaking and this Deed shall constitute a continuing waiver and no such waiver shall prevent the Council or the Second Council from enforcing any of the obligations arising from the Unilateral undertaking and this Deed or from acting on any subsequent breach or default by the Owner or the Developer.

## **10. Third Party Rights**

A person who is not a party to this Deed shall not have any rights under the Contracts (Rights of Third Parties) Act 1999 to enforce any term of this Deed.

## **11. Governing Law**

- 11.1. This Deed and any dispute or claim arising out of or in connection with it or its subject matter or formation (including non-contractual disputes or claims) shall be governed by and construed in accordance with the law of England and Wales.
- 11.2. This document has been executed as a Deed and is delivered and takes effect on the date stated at the beginning of it.



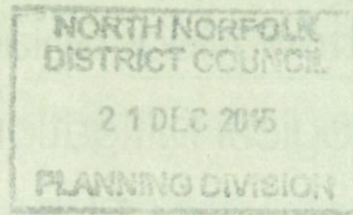
**FIRST SCHEDULE**

**Skylark Mitigation Plan**

COND/15/1290



Ecology Consultancy



AMENDMENT

RAF Coltishall, Norfolk / Skylark Mitigation Strategy / Report for Scottow Moor Solar Ltd



# Scottow Moor Solar Ecological Mitigation and Environmental Management Plan

**PF/14/1334**

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Job Number	141656			
Version	Checked by	Approved by	Date	Type
1	Tracy Simpson	Dr Rachel Saunders	15/07/15	Final



# Contents

1	Introduction	4
2	Mitigation Strategy	7
3	Environmental Management Plan	13
4	Skyrark Monitoring Regime	16
	Appendix 1: Plans	19
	Appendix 2: Legislation	22
	Appendix 3: FLS/HLS Options Detail	26
	Appendix 4: S kyrark Plot Design	27

## LIABILITY

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## Executive Summary

- The Ecology Consultancy was appointed by Scottow Moor Solar Ltd to update the Ecological Mitigation and Environmental Management Plan (EMEMP) in order to fulfil the requirements of conditions 5, 6, 7, 8 and 9 of the planning consents PF/14/1334 (North Norfolk District Council) and 20141677 (Broadland District Council) and the section 106 Unilateral Obligation dated 8 January 2015 between Scottow Moor Solar Ltd, Norfolk County Council, North Norfolk District Council and Broadland District Council which relates to skylark mitigation.
- This report sets out measures for the creation of skylark compensation habitat off-site, site enhancement measures to improve the quality of the compensation areas for skylark and other farmland birds and the survey and monitoring arrangements during the mitigation period. In addition, alterations to the proposals for landscape mitigation planting included in the Environmental Mitigation and Environmental Management Plan (December 2014) are proposed.
- The site is located at the former RAF Coltishall Airfield at Lamas to the north of Coltishall, Norfolk centred at National Grid Reference TG 266 227. The Application Site comprises approximately 86.64ha of land within the former RAF Coltishall site developed as a large scale solar farm.
- Approximately 97 singing male skylarks are known to have held breeding territory within the entire former RAF Coltishall Site in 2012 based on the raw data supplied by Wild Frontier Ecology. Within the 86.64ha Application Site there were approximately 69 singing males which represents a maximum density of *c.* 0.8 per ha.
- This strategy is written to take account of breeding skylark known to be using habitats within the Application Site and is designed to compensate for the loss of habitats resulting from the development. In general, on-site mitigation within the Application Site is not possible due to the nature of the development and the habitat requirements for skylark; therefore the majority of skylark habitat will be created off-site.
- L F Papworth Ltd manage fields directly adjacent to the southern boundary of the former RAF Coltishall site which provide the highest potential for enhancement for the benefit of skylark. The compensation measures for the habitat management of the farmland is principally based on the farmland management options available through Natural England's Higher Level Stewardship (HLS) and Entry Level Stewardship (ELS).

- L F Papworth Ltd will implement the ELS and HLS management options within 12 months of the date of first commercial export of electricity from the development. This date was 26 March 2015.
- Post construction monitoring of the former RAF Coltishall site will be undertaken to determine the number of skylark territories on site and to monitor productivity and distribution of skylark across the Application Site and the retained grassland areas. Monitoring of the off-site skylark mitigation measures will also be undertaken.
- Monitoring will occur immediately following construction (Year 0) and in Years 1, 3, 5 and 10. Monitoring reports will be produced and issued to North Norfolk District Council (NNDC), Broadland District Council (BDC) and Norfolk County Council (NCC). A review of the mitigation strategy will be carried out in Year 3 and year 5. The efficacy of the mitigation strategy will be assessed in consultation with NNDC and BDC. Should it be considered that further skylark mitigation measures are required, these will be submitted for approval and the EMEMP updated accordingly.



# 1 Introduction

## GENERAL BACKGROUND

- 1.1 The Ecology Consultancy was appointed by Scottow Moor Solar Ltd to update the Ecological Mitigation and Environmental Management Plan (EMEMP) in order to fulfil the requirements of conditions 5, 6, 7, 8 and 9 of the planning consents PF/14/1334 (North Norfolk District Council) and 20141677 (Broadland District Council) and the section 106 Unilateral Obligation dated 8 January 2015 between Scottow Moor Solar Ltd, Norfolk County Council, North Norfolk District Council and Broadland District Council which relates to skylark mitigation.
- 1.2 Baseline breeding bird surveys were carried out in 2014 (Wild Frontier Ecology, 2014) and indicated skylark territories at a density of approximately 0.5 per hectare distributed relatively homogeneously across the former RAF Coltishall site, which is approximately 200ha, and at a density of approximately 0.8 per hectare within the solar farm Application Site.
- 1.3 This report sets out measures for the creation of skylark compensation habitat off-site, site enhancement measures to improve the quality of the compensation areas for skylark and other farmland birds and the survey and monitoring arrangements during the mitigation period. In addition, alterations to the proposals for landscape mitigation planting included in the Environmental Mitigation and Environmental Management Plan (December 2014) are proposed.

## SITE CONTEXT

- 1.4 The site is located at the former RAF Coltishall Airfield at Lamas to the north of Coltishall, Norfolk centred at National Grid Reference TG 266 227. The Application Site comprises approximately 86.64ha of land within the former RAF Coltishall site.
- 1.5 The Application Site primarily comprises large expanses of rough unimproved grassland located between the runway and areas of hardstanding. Surrounding land uses principally comprise permanent arable farmland.

## DESCRIPTION OF THE DEVELOPMENT

- 1.6 The Application Site development is for a large-scale solar farm comprising two phases of development. Phase 1, completed in March 2015 comprises approximately 70ha of solar panels and Phase 2, comprises approximately 17ha and is currently not programmed for construction. A site layout plan is given in Appendix 1, Figure 1.

## SURVEY BACKGROUND

- 1.7 Breeding bird surveys of the entire former RAF Coltishall site were carried out during two survey visits undertaken by Wild Frontier Ecology (WFE) in April and June 2012. On each visit bird contacts were recorded directly onto site plans along with symbols identifying simple behaviours such as singing, calling or carrying food/nest material. In the absence of more comprehensive data, the WFE raw data was used by The Ecology Consultancy to determine the number of individual skylark territories calculated by taking the maximum number of singing males recorded in either of the survey visits.

## SKYLARK STATUS

- 1.8 Approximately 97 singing male skylarks are known to have held breeding territory within the entire former RAF Coltishall Site in 2012 based on the raw data supplied. Within the 86.64ha Application Site there were approximately 69 singing males which represents a maximum density of *c.* 0.8 per ha. This density is above published average figures in any habitat (Winspear & Davies 2005) in the UK. By comparison, the average density in recognised high quality habitat, such as set-aside, is 0.3 pairs per ha and in low quality habitat, such as improved grassland, it is 0.05 pairs per ha.

## CONSERVATION STATUS

- 1.9 In addition to being a local (Norfolk) Biodiversity Action Plan (BAP) species and on the 'Red' list of Birds of Conservation Concern (*sensu* Eaton *et al.* 2009) the skylark is a priority UK Biodiversity Action Plan species and Species of Principal Importance under the Natural Environment and Rural Communities Act (NERC) 2006. Under the NERC Act (2006), every public authority must, in exercising its functions, have regard to the purpose of conserving biodiversity (which includes restoring and enhancing populations) with reference to the published list of Species of Principal Importance. Therefore the status of the skylark will be a consideration within the planning process.
- 1.10 Given the high density of skylark within the entire former RAF Coltishall site and taking into consideration the conservation status of the species in Norfolk, it is considered that the former RAF Coltishall site is likely to be of County level significance for skylark (IEEM 2006).

## HABITAT REQUIREMENTS OF SKYLARK IN LOWLAND FARMLAND

- 1.11 Skylarks are ground-nesting birds which typically utilise cereal crops, set-aside and grassland although a wide range of arable crops may be used. They are particularly associated with vegetation 20–50cm high. Semi-natural grasslands can hold the highest densities of skylarks but, in the case of lowland farms, densities are generally

highest on arable farms, intermediate on mixed farms and lowest on pastoral farms (Winspear & Davies 2005).

1.12 Vegetation structure and crop type plays an important part in determining the density of breeding birds. On arable land, breeding densities are highest in spring-sown crops (except oilseed rape) and set-aside, and lowest in autumn-sown crops (especially oilseed rape). On grassland, silage fields attract breeding skylark but productivity is low due to nest loss during cutting. Breeding densities are low on improved grazed pasture (Winspear & Davies 2005).

1.13 Skylark avoid nesting close to hedges and even isolated structures such as pylons, trees or bushes in order to avoid predation. It is therefore not considered likely that skylark will nest in the rows between solar panels.

#### **LEGISLATION AND PLANNING POLICY**

1.14 Appendix 2 contains details of legislation relating to nesting birds, and is provided for general guidance only.



## 2 Mitigation Strategy

### OUTLINE

- 2.1 This strategy is written to take account of breeding skylark known to be using habitats within the Application Site and is designed to compensate for the loss of habitats resulting from the development.
- 2.2 In general, on-site mitigation within the Application Site is not possible due to the nature of the development and the habitat requirements of skylark. Skylarks require large open arable fields or expanses of rough grassland and are not expected to continue nesting in remnants of habitat located between rows of panels. In addition, remaining areas of the former RAF Coltishall site, outside of the Application Site, support unimproved grassland habitats similar to those present within the Application Site and already maintain nesting skylark. These unimproved grassland habitats cannot be appreciably improved to support any meaningful increase in skylark carrying capacity. The majority of skylark habitat must, therefore, be created off-site to compensate for the loss of suitable habitat within the Application Site.
- 2.3 The compensation measures for the habitat management of the farm is principally based on the farmland management options available through Natural England's Higher Level Stewardship (HLS) and Entry Level Stewardship (ELS) with additional management principles outlined in Winspear and Davies (2005) and the RSPB Farmland Bird package (see <http://www.rspb.org.uk/ourwork/farming/advice/conservation/package/index.aspx>).
- 2.4 The mitigation strategy is designed to enhance the value of the land for the benefit of both breeding and wintering skylark (and, where possible, other farmland birds).
- 2.5 The skylark mitigation strategy has been developed in consultation with the client, Scottow Moor Solar Limited, Norfolk County Council (NCC), North Norfolk District Council (NNDC) and Broadland District Council (BDC)
- 2.6 At a meeting with NNDC and BDC on 12 May 2015 it was agreed that a 10 year mitigation package would be acceptable and that monitoring should be undertaken in the baseline year and years 1, 3, 5 and 10 with a review in Year Three

### ON-SITE MITIGATION

- 2.7 Whilst the Application Site to be developed is approximately 86.64, large areas of the former RAF Coltishall Site will remain as rough unimproved grassland. Two large areas

of the site are to be managed and maintained for the benefit of breeding skylark (Condition 7). These are shown in Figure 1, Appendix 1. These areas currently have no formal management strategy but are rotationally sheep-grazed by L F Papworth Ltd. This grazing regime has created a very good, tussocky sward. It is clear from the number of skylark observed in these grassland areas that this grazing regime is maintaining its suitability for skylark.

- 2.8 A management plan for these retained areas of unimproved grassland is included in Chapter 3 of this report.

#### **OFF-SITE HABITAT CREATION**

- 2.9 L F Papworth Ltd manage fields directly adjacent to the southern boundary of the former RAF Coltishall site which provide the highest potential for enhancement for the benefit of skylark. These fields are located within 1km of the site and provide the core area for the mitigation strategy.
- 2.10 L F Papworth Ltd have agreed to provide the farmland habitats to be used as the potential compensation site for skylark. The proposed mitigation strategy agreed with L F Papworth will utilise HLS and ELS management options to improve habitat through the commitment to sympathetic management techniques to benefit skylark including the creation of skylark plots; uncultivated field margins; switching to spring-sown cereal crops and the retention of over-wintered stubbles to help offset the loss of skylark nesting habitat within the Application Site.
- 2.11 Preliminary surveys undertaken by The Ecology Consultancy between April and June 2015 indicate that these core fields currently support very low numbers of breeding skylark. A change in management strategy is therefore likely lead to tangible benefits to skylark and provide reasonable compensation for the loss of nesting skylark within the Application Site.
- 2.12 L F Papworth Ltd will implement the ELS and HLS management options within 12 months of the date of first commercial export of electricity from the development. This date was 26 March 2015.

#### **Field Margins (Buffer strips on cultivated land)**

- 2.13 Arable field margins are herbaceous strips around arable fields that are managed specifically to provide benefits for wildlife. Field margins typically provide permanent grassland strips with a mixture of tussocky and fine-leaved grasses. Additionally field margins can be over-sown with wildflower or winter bird seed mixes to further

increase the benefit to invertebrates and wild birds. Up to 75% of the biodiversity within an arable field can be found within the field margins (Suffolk BAP, 2003).

- 2.14 As skylark tend to avoid nesting at the edges of fields, field margins are not considered to provide nesting habitat. However, they do provide suitable foraging habitat. This is because field margins provides a secure haven for invertebrate prey species such as beetles and spiders which then spread out into the field as the crops become established. Fields with margins are considered to have higher concentrations of invertebrate prey densities than those without (Josefsson *et al.*, 2013).
- 2.15 The mitigation strategy allows for the provision of 5km of permanent 4m wide field margins in fields within 1km of the Application Site. These are to be established by sowing or, ideally, by natural regeneration. Half of the 5km of field margins will be required within fields directly adjacent to former RAF Coltishall and will include field numbers; 0238, 3371, 4141 and 9801. The remainder will be located within fields >5ha in size at the discretion of L F Papworth Ltd.
- 2.16 The field margins will be managed as low intensity grassland to provide meadow habitat for invertebrates. Regular cutting may be required in the first 12-24 months to control annual weeds but following this cutting will be restricted to no more than once every two years only to control woody growth and will not be undertaken before 15<sup>th</sup> August. Buffer strips will not be used for vehicular access, turning or storage and will be no tracks, compacted areas or poaching.

#### **Spring Sown Cereal Crops**

- 2.17 Within cereal crops, there have been changes in the timing of sowing. The total UK area of wheat and barley sown in the autumn increased substantially from the mid-1970s, with spring-sown cereals showing equivalent decreases in area. A before-and-after site comparison study in 2000-2005 in Bedfordshire, England (Henderson *et al.*, 2009), found that spring-sown cereal crops held significantly more skylark than winter-sown wheat.
- 2.18 Under-sowing of grass or clover was also a widespread practice that has declined with the increase in autumn sowing and the increasing separation of arable and pastoral enterprises. The majority of the wheat crop has been sown in the autumn since at least the early 1960s. By the mid-1980s, virtually all wheat was autumn-sown and currently less than 1% is sown in the spring (Chamberlain *et al.*, 2000).

2.19 The benefit of spring-sown cereal crops to skylark is due to the crop height during the breeding season. Studies indicate that skylark occupancy is significantly reduced in fields where crops exceeded 30cm (Chamberlain *et al.*, 1999). Winter-sown cereals reach this height significantly earlier in the breeding season than spring-sown crops and so are at a suitable height for nesting for a shorter proportion of the nesting period than spring-grown crops. In addition harvesting occurs later in spring-grown crops. As such, spring-sown crops are preferential to nesting skylark allowing them to extend their nesting period, successfully fledging second, third and even fourth broods of young. Given this preference it is reasonable to conclude that the density of skylark breeding pairs might be higher in spring-sown as opposed to winter-sown cereals.

2.20 The mitigation strategy will provide 40ha of spring-grown cereal crops on a rotational basis, planted at lower than usual seeding density in line with HLS option HG7 (Low input spring cereal to retain or recreate an arable mosaic) in fields >5ha within 1km of the Application Site. At least one of the fields directly adjacent to the former RAF Coltishall site (0238, 4141, 3371 or 9801) will support spring-grown cereal crops each year.

2.21 The open spring cereal crops provides breeding sites for ground nesting birds including skylark. This management option includes establishing a spring cereal crop at a specified seed rate of not more than 100 kg/ha; following a restricted herbicide and fertiliser programme; and a restriction on harvesting prior to 31<sup>st</sup> July.

#### Over-wintered Stubble

2.22 Another consequence of the increase in winter-sown cereal crops is the decrease of winter stubble. Previously, a large proportion of harvested cereal crops would have been ploughed and left until the spring. In some cases the stubble was left over winter to be ploughed in before planting the next crop.

2.23 Over-wintered stubble provides an important winter food for seed-eating birds including skylark. It can be managed rotationally in combination with spring-sown cereal crops providing important habitat for a range of farmland birds including skylark, yellowhammer, grey partridge and linnet.

2.24 The mitigation strategy will implement the retention of 40ha of overwinter stubble per annum in fields within 1km of the Application Site. The overwinter stubble will be managed in line with the EF6 'Overwintered stubble' option within the ELS handbook. The option manages stubble following the harvest of combinable crops such as oilseed rape, linseed, cereals or field beans (but not maize). This is a rotational option



maintaining the same total hectareage across the farm but at least one of the fields directly adjacent to former RAF Coltishall (0238, 4141, 3371 or 9801) will support winter stubble each year.

- 2.25 The winter stubble will be managed through baling or chopping and spreading straw after harvest. Stubble can undergo a light surface cultivation before October or within the first month following harvest to encourage cultivation of green cover through natural regeneration and loosen any surface compaction or capping. If stubble is already weedy, it will not be cultivated. There will be an exclusion on addition of pesticides, fertilisers, manures or lime to the stubble and no grazing will occur. Winter stubble will be retained until at least 15<sup>th</sup> February each year when it can be returned to the normal farm rotation.

#### Management of Field Corners

- 2.26 Provision of a grassy area on the field edge in line with ELS option EF1 will increase the wildlife interest of arable fields in a similar way to field margins. This option, however, is designed for field corners which are often awkward to reach with machinery and could be easily be taken out of production creating a more regular field shape while providing benefits to wildlife.
- 2.27 The mitigation strategy will establish and maintain field corners totalling 0.5ha within the first 12 months of the agreement, either by sowing or, ideally, natural regeneration. After establishment, it will be cut no more than once every 5 years to allow the development of tussocky grass and low scrub. Application of manure or fertilisers is prohibited and no cutting will take place between March and August.
- 2.28 Appropriate fields for the establishment of field corners include 0238, 3371 or 9801.

#### Skylark Plots

- 2.29 Skylark plots are undrilled patches in autumn or winter sown cereal crops. Previous monitoring of skylark by the RSPB suggests that the installation of skylark plots can lead to an average increase of approximately 50% in productivity where skylark plots are installed at a rate of two per hectare within arable fields. Details of skylark plots are included in Appendix 4.
- 2.30 Skylark plots in winter and autumn-sown cereal crops have been shown to be effective at increasing skylark productivity when located in large open fields over 5ha in area or fields enclosed by hedgerow and trees that are greater than 10ha in area. Skylark plots are primarily used to increase food availability within fields and thereby indirectly increase productivity rather than actively providing nesting habitat, although



they are often utilised for nesting. Background information relating to skylark plots can be found in the RSPB documents 'Farming for Wildlife – Skylark plots' and page 25-26 of 'Hope Farm Five Year Update (Part 3)'.

- 2.31 Skylark plots, in line with ELS option EF8, will be included in all fields where winter cereal crops and rape is cultivated in close proximity to former RAF Coltishall. A requirement for 30ha of winter cereal crops with skylark plots at two plots per hectare has been identified in fields within 1km of former RAF Coltishall. In addition a further 50ha of arable farmland managed by L F Papworth Ltd at Tuttington and Felmingham will be managed with skylark plots at a density of 2 plots per hectare. Plots will be a minimum of 16m<sup>2</sup> in area, located away from tramlines and field boundaries and margins (at least 50m into the field) to minimise predation of any nests that might be constructed within the plots. After drilling there is no requirement to manage the skylark plots any differently to the remainder of the field (they can be over-sprayed and fertilised).

### 3 Environmental Management Plan

#### **Solar Farm Grassland Management**

- 3.1 Grassland habitat within the Application Site (Phases 1 & 2) shown in Figure 1 in Appendix 1 will be managed appropriately to maintain suitability for nesting skylark over the full 25 year lifespan of the solar farm. Management will principally be through grazing by sheep with a single mechanised cut permitted outside of the skylark nesting season (1<sup>st</sup> April to 15<sup>th</sup> August).
- 3.2 Grazing during the skylark nesting period (1<sup>st</sup> April to 15<sup>th</sup> August) will be managed in order to retain an appropriate sward structure for nesting skylark with stocking densities monitored and adjusted to avoid overgrazing.

#### **Retained Grassland Management**

- 3.3 The following management procedures are relevant to the grassland habitat of the two retained grassland areas shown in Figure 1 in Appendix 1. The two retained grassland areas will be set aside and protected for the purposes of skylark mitigation for the full 25 year lifespan of the solar farm and managed accordingly to maximise the habitat quality for nesting skylark.
- 3.4 In recent years the former RAF Coltishall Site has been managed through low intensity rotational sheep-grazing supplemented by a single mechanised cut in the early autumn. The current regime appears to be conducive to maintaining the grassland in suitable condition for nesting skylark and so should be continued as part of the managed regime with minor changes.
- 3.5 Research has shown that lenient grazing of agricultural grassland (to a sward height of 12-15cm) has been shown to have large and immediate beneficial impacts on invertebrate abundance and utility to skylarks. As such, grazing will be managed during the skylark nesting season (1<sup>st</sup> April to 15<sup>th</sup> August) in such a way as to maintain a variable grassland mosaic with a sward height of 12-15cm.
- 3.6 Within the retained grassland areas during the skylark nesting period (1<sup>st</sup> April – 15<sup>th</sup> August), grassland will be managed by sheep grazing only in order to retain an appropriate sward structure for nesting skylark. Stocking densities will also be monitored and adjusted to avoid overgrazing.

## **Restrictions to use of Retained Grassland Areas**

### *Vehicular Access*

- 3.7 Due to the designation of the retained grassland areas for skylark mitigation there are certain activities that would be in conflict with the management of these areas for the benefit of this species.
- 3.8 Vehicle movements on the retained grassland areas will not be permitted within the skylark nesting period, 1<sup>st</sup> April to 15<sup>th</sup> August. Exceptions to this are for vehicular access for the purposes of sheep grazing or for repair and maintenance purposes only.
- 3.9 Access for vehicles between September and February will be as required. Should any damage to the retained grassland occur re-seeding will take place prior to the commencement of the nesting season using Emorsgate EG10 Tussock Grass Mixture.

### *Parking/Materials Storage*

- 3.10 The retained grassland areas will not be used for the storage of materials or parking.

### *Future Development*

- 3.11 The retained grassland areas will not be used for any future development for the 25 year lifespan of the solar farm.

## **Amendments to Landscape Design**

### *Hedgerow Planting*

- 3.12 The Ecological Mitigation and Environmental Management Plan (December 2014) included a proposal to plant native hedgerow species on the boundaries to the north, east and south of the former RAF Coltishall site to screen the site from the surrounding area.
- 3.13 It is now considered that the inclusion of hedgerows on the southern boundary would reduce the habitat area available for skylark nesting as skylark avoid nesting within approximately 25m of boundary features. On the northern boundary, Norfolk County Council are currently considering the construction of a new access to Scottow Enterprise Park.
- 3.14 In consideration of the above, it has been agreed with NNDC and BDC that the hedgerow planting to the south and north will not be implemented. Landscape mitigation to provide screening to properties in Frogge Lane will be implemented. This hedgerow is not anticipated to reduce the habitat suitability for skylark.

## **Management Agreements**

### *Off-site mitigation measures – L F Papworth*

- 3.15 An agreement with L F Papworth Farms will be put in place that is in line with Natural England Higher Level Stewardship Agreements in order to deliver the off-site arable farmland mitigation package detailed in Chapter 2.

### *On-site retained grassland*

- 3.16 An agreement with Norfolk County Council will be signed and put in place to ensure the appropriate management of the retained areas of grassland.



## 4 Skylark Monitoring Regime

- 4.1 In compliance with Condition 5 (b) a methodology for monitoring and reporting to North Norfolk District Council and Broadland District Council must be included within the Ecological Mitigation and Environmental Management Plan.
- 4.2 Post construction monitoring of the former RAF Coltishall site will be undertaken to determine the number of skylark territories on site and to monitor productivity and distribution of skylark across the Application Site and the retained grassland areas.
- 4.3 Monitoring of the off-site skylark mitigation measures will also be undertaken. A 10 year service contract will be put in place between Scottow Moor Solar Ltd and the appointed ecological management consultant.
- 4.4 Skylark monitoring will be carried out by an experienced and competent ornithologist using methods based on the BTO's Common Bird Census technique. This will comprise four monitoring visits spread evenly across the skylark nesting season between mid-April and mid-July. Territory analysis will be carried out to determine the number and distribution of skylark across the site and mitigation areas.
- 4.5 Monitoring will occur immediately following construction (Year 0) and in Years 1, 3, 5 and 10. Monitoring reports will be produced and issued to North Norfolk District Council, Broadland District Council and Norfolk County Council.
- 4.6 A full review of the mitigation strategy will be carried out in Year 3 and Year 5. The efficacy of the mitigation strategy will be assessed in consultation with NNDC and BDC. If during the first five years of monitoring, the Local Planning Authority consider that further biodiversity improvements are required on or off the site, then a further scheme shall be submitted to and approved by the LPA and implemented within a timescale to be agreed with the Local Planning Authority.
- 4.7 The methodology for the monitoring and reporting to the Local Planning Authority for this period following the date(s) of completion of the Management Agreements for the on-site and off-site mitigation measures will broadly follow standard Common Bird Census techniques but comprise four survey visits to the site spaced evening though the skylark breeding season mid-April to June inclusive.
- 4.8 Survey reports for the agreed survey years 1, 3, 5 and 10 will be submitted to the LPA by September following the completion of the survey visits and include analysis of



data to assess changes in skylark density and distribution across the solar farm and mitigation sites, review of the success of the mitigation strategy and any recommendations for any changes to the ELS/HLS mitigation measures if required.

## References

- Browne, S., Vickery, J. & Chamberlain, D. (2000) Densities and Population Estimates of Breeding Skylarks *Alauda arvensis* in Britain in 1997. *Bird Study* **47**, pp 52-65.
- Chamberlain, D.E. & Gregory, R.D. (1999) Coarse and Fine Scale Habitat Associations of Breeding Skylarks *Alauda arvensis* in the UK. *Bird Study* **46**, pp 34-47.
- Chamberlain, D.E., Wilson, A.M., Browne, S. & Vickery, J.A. (1999) Effects of habitat type and management on the abundance of skylarks in the breeding season. *Journal of Applied Ecology* **36**, pp856-870.
- Chamberlain, D.E., Fuller, R.J., Bunce, R.G.H., Duckworth, J.C. and Shrubbs, M. (2000) Changes in abundance of farmland birds in relation to the timing of agricultural intensification in England and Wales. *Journal of Applied Ecology* **37**, pp771-788.
- Eaton, M.A., Brown, A.F., Noble, D.G., Musgrove, A.J., Hearn, R., Aebischer, N.J., Gibbons, D.W., Evans, A. and Gregory, R.D. (2009) Birds of Conservation Concern 3: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man. *British Birds* **102**, pp 296-341.
- Henderson I.G., Ravenscroft N., Smith G. & Holloway S. (2009) Effects of crop diversification and low pesticide inputs on bird populations on arable land. *Agriculture, Ecosystems & Environment*, **129**, 149-156
- Josefsson, J., Berg, A., Hiron, M., Part, T. & Eggers, S. (2013) Grass buffer strips benefit invertebrate and breeding skylark numbers in a heterogeneous agricultural landscape. *Agriculture, Ecosystems and Environment* **181**, pp 101-107.
- RSPB Farming for Wildlife: Skylark Plots. Available from: [http://www.rspb.org.uk/images/skylarkplot\\_tcm9-132769.pdf](http://www.rspb.org.uk/images/skylarkplot_tcm9-132769.pdf)
- RSPB (2009) *Farmland Bird Package*. Available from: <http://www.rspb.org.uk/ourwork/farming/advice/conservation/package/index.aspx>
- Winspear, R. & Davies, G. (2005) *A management guide to birds of lowland farmland*. RSPB, Sandy, Bedfordshire.

## Appendix 1: Plans

Figure 1: Site Layout plan showing retained grassland areas





Figure 2: Fields under management by Papworth Farms to be included in the Skylark Mitigation Strategy ELS/HLS options



## Appendix 2: Legislation

**Important Notice:** This section contains details of legislation and planning policy applicable in Britain only (i.e. not including the Isle of Man, Northern Ireland, the Republic of Ireland or the Channel Islands) and is provided for general guidance only. While every effort has been made to ensure accuracy, this section should not be relied upon as a definitive statement of the law.

## A NATIONAL LEGISLATION AFFORDED TO SPECIES

The objective of the EC Habitats Directive<sup>1</sup> is to conserve the various species of plant and animal which are considered rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (as amended) (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) is a key piece of national legislation which implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection obligations of Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Since the passing of the Wildlife & Countryside Act 1981, various amendments have been made, details of which can be found on [www.opsi.gov.uk](http://www.opsi.gov.uk). Key amendments have been made through the Countryside and Rights of Way (CROW) Act (2000) and Nature Conservation (Scotland) Act 2004.

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991
- Countryside and Rights of Way (CROW) Act 2000
- Natural Environment & Rural Communities (NERC) Act 2006
- Protection of Badgers Act 1992
- Wild Mammals (Protection) Act 1996

Species and species groups that are protected or otherwise regulated under the aforementioned domestic and European legislation, and that are most likely to be affected by development activities, include herpetofauna (amphibians and reptiles), badger, bats, birds, dormouse, invasive plant species, otter, plants, red squirrel, water vole and white clawed crayfish.

Explanatory notes relating to species protected under The Conservation of Habitats and Species Regulations 2010 (as amended) (which includes smooth snake, sand lizard, great crested newt and natterjack toad), all bat species, otter, dormouse and some plant species) are given below. **These should be read in conjunction with the relevant species sections that follow.**

- In the Directive, the term 'deliberate' is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.
- The Conservation of Habitats and Species Regulations 2010 (as amended) does not define the act of 'migration' and therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered.

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<sup>1</sup> Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora

- In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three 'tests': i) the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment; ii) that there is no satisfactory alternative and iii) that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

## Birds

All wild birds, their nests and eggs are protected under Sections 1-8 of the Wildlife and Countryside Act 1981 (as amended). Among other things, this makes it an offence to:

- Intentionally (or recklessly in Scotland) kill, injure or take any wild bird
- Intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built
- Intentionally take or destroy an egg of any wild bird
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.
- In Scotland only, intentionally or recklessly obstruct or prevent any wild bird from using its nest.

Certain species of bird, for example the barn owl, black redstart, hobby, bittern and kingfisher receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (79/409/EEC). This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young
- Intentional or reckless disturbance of dependent young of such a bird
- In Scotland only, intentional or reckless disturbance whilst lekking
- In Scotland only, intentional or reckless harassment

### *How is the legislation pertaining to birds liable to affect development works?*

To avoid contravention of the Wildlife and Countryside Act 1981 (as amended), works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August<sup>9</sup>. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Those species of bird listed on Schedule 1 are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

## Appendix 3: ELS/HLS Options Detail



10 Year HLS/ELS Options and Generated Annual Costs

ELS/HLS	Option Title	Option Code	Cost per unit	Unit	Field included	Area (ha)	Annual cost
ELS	4m buffer strips on cultivated land	EE2	£340	ha	0238a	0.25	£85.00
					0238b	0.5	£170.00
					4141	0.6	£204.00
					3371	0.15	£51.00
					<1km RAF Coltishall	0.5	£170.00
HLS	Low input spring cereal to retain or recreate an arable mosaic	HG7 <sup>3</sup>	£250	ha	1km RAF Coltishall (0238, 4141, 3371, 9801)	40	£10,000.00
ELS	Overwintered Stubble	EF6	£120	ha	<1km RAF Coltishall (0238, 4141, 3371, 9801)	40	£4,800.00
ELS	Management of Field Corners	EF1	£400	ha	9801*	0.5	£200.00
ELS	Skylark Plot (2 per hectare)	EF8	£18	ha	<1km Coltishall	30	£540.00
					Non specified fields	50	£900.00
* Suggested field location							£17,120.00 PA

## Appendix 4: Skylark Plot Design

## CREATION OF SKYLARK PLOTS

It is best to create skylark plots in fields that are to be sown with winter cereals. The fields should be more than 5 ha in size and have an open aspect. Fields bounded by trees or adjacent woods are not suitable unless they are larger than 10 ha.

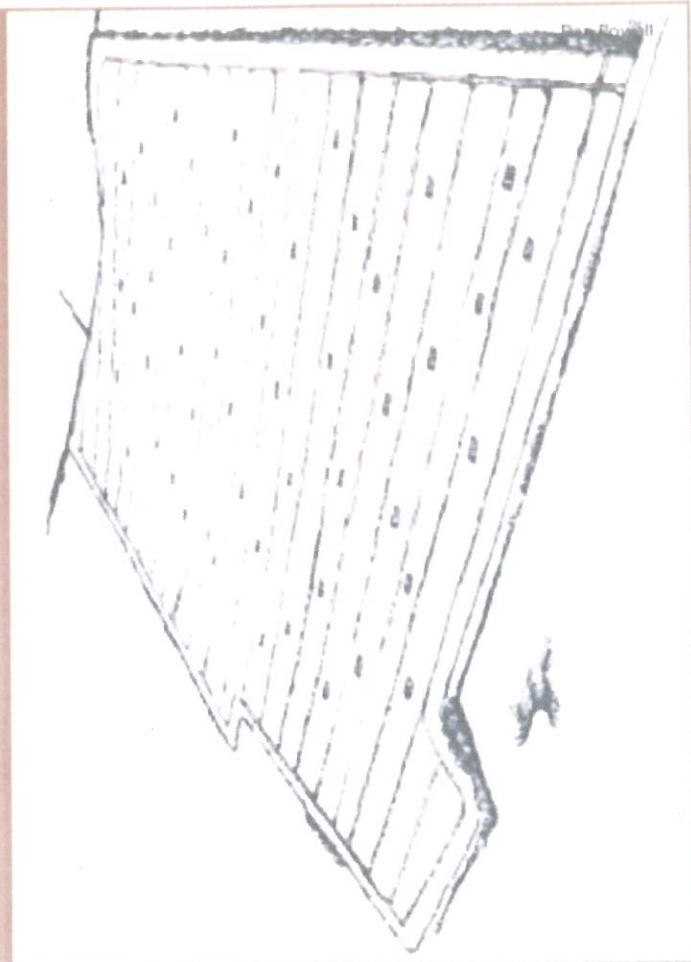
Skylark plots are created by switching off the drill (or lifting it up) to create undrilled patches at least 3 m wide. Aim for each plot to be between 16 m<sup>2</sup> and 24 m<sup>2</sup>. The table below indicates the ideal length for plots created with different drill widths. A tail-off of cereal grain in the plot after the drill has been switched off or lifted up is to be expected.

Guidance on the ideal plot length in relation to the width of the drill	
Drill width (m)	Plot length (m)
3	6 to 8
4	4 to 6
6	3 to 4
8	3

The ideal number of plots in a field is two per hectare. They should not be connected to the tramlines and should be sited away from field boundaries and telegraph poles. They should be at least 24 m from the edge of the field. Typical plots of 4 x 5 m will take up less than half of 1% of the field area.

No further action is necessary – skylark plots will receive the same sprays and fertiliser applications as the rest of the field. If you have concerns about difficult weeds, rarely required in skylark plot trials, such as black grass or wild oats, arising within the plot, you can control them using a knapsack sprayer – although this was rarely required in skylark plot trials.

**A 25-hectare winter cereal field should ideally contain about 50 plots scattered across it. The plots should not be within 24 metres of the field edge or connected to the tramlines.**







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## **SECOND SCHEDULE**

### **Skylark Mitigation Strategy Addendum Report**



# **RAF Coltishall Solar Farm, Norfolk**

## **Skylark Mitigation Strategy Addendum**

### **Report for Scottow Moor Solar Ltd**

#### **LIABILITY**

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## Contents

<b>Executive Summary .....</b>	<b>3</b>
<b>1 INTRODUCTION .....</b>	<b>5</b>
1.1 Background to Commission .....	5
1.2 Scope of Report .....	5
1.3 Description of Development .....	5
<b>2 ENVIRONMENTAL MANAGEMENT PLAN .....</b>	<b>6</b>
2.1 Grassland Management .....	6
2.1.1 Solar Farm Grassland Management .....	6
2.1.2 Retained Grassland Management .....	6
2.2 Restrictions to use of Retained Grassland .....	6
2.2.1 Vehicular Access .....	6
2.2.2 Parking/Materials Storage .....	6
2.2.3 Future Development .....	7
2.2.4 Annual Statement .....	7
<b>3 SKYLARK MITIGATION STRATEGY .....</b>	<b>8</b>
3.1 Period of Commitment .....	8
3.2 Skylark Mitigation Strategy Variation for Year 1 (2016/17) .....	8
3.3 Skylark Monitoring Regime .....	8
<b>4 References .....</b>	<b>11</b>
<b>Appendix 1: Site Plan .....</b>	<b>12</b>



## Executive Summary

Riverdale Ecology Ltd was commissioned by Scottow Moor Solar Ltd in July 2016 to produce an addendum to the Skylark Mitigation Strategy and Ecological Mitigation and Management Plan (EMEMP) for RAF Coltishall Solar Farm, Llamas, Norfolk. The original report was produced by The Ecology Consultancy in July 2015 and included a skylark mitigation strategy for a period of 10 years and environmental management recommendations for a period of 25 years, the period of operation for the solar farm at the time of the report. The addendum report is required to reflect a proposed extension in the solar farm operation period from 25 years to 31 years.

The purpose of this report is to identify any additional impacts and establish any necessary changes to the EMEMP or Skylark Mitigation Strategy to reflect the change in operation period from 25 to 31 years.

The addendum report is based on a review of the following information sources:

- Environmental Mitigation and Environmental Management Plan (Wild Frontier Ecology, 2014); and
- Environmental Mitigation and Environmental Management Plan (and Skylark Mitigation Strategy) (The Ecology Consultancy, 2015).

The basis of the Skylark Mitigation Strategy will remain largely unaltered from the original report (The Ecology Consultancy, 2015) however the term of commitment for the delivery of the Entry Level and Higher Level Stewardship options will increase from the original 10-year plan, agreed with North Norfolk District Council and Broadland District Council in May 2015. The new strategy will operate for a period of 12 years which reflects the 20% increase in lifespan of the solar farm. Off-site mitigation measures will commence within 12 months of the completion in March 2016 of Phase 2 of the solar farm.

Delivery of the off-site mitigation measures in line with ELS and HLS options will commence in October 2016. As such each mitigation delivery period will run from 1<sup>st</sup> October to 31<sup>st</sup> September. Scheduling the works within these periods will maintain reasonable compatibility with the farming calendar allowing delivery of the different elements at the appropriate time of year.

Year 1 (2016/2017) will include alternative options to compensate for the absence of skylark plots which were not possible to include. The alternative measures are appropriate to compensate for the skylark plots and include:

- Provision of additional winter stubble (approximately 20 hectares);
- Provision of additional low input spring cereal crops (approximately 20 hectares);
- Retention of low growing cover crops over the winter.

Skylark plots will then be created during sowing in summer 2017 and be in place for Year 2 of the Skylark Mitigation Strategy and the 2018 skylark nesting season.

Post construction monitoring of the former RAF Coltishall site will be undertaken to determine the number of skylark territories on site and to monitor productivity and distribution of skylark across the Solar Farm Development areas and the retained grassland areas. Monitoring has been completed for year 0 (2015) and year 1 (2016) in accordance with the agreed monitoring programme. To reflect the change in the lifespan of the solar farm and associated change in the proposed mitigation period the remaining monitoring commitment will be increased. The remaining monitoring visits will occur in years 2017, 2018, 2020, 2023 and 2027.

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RE2016-0017 RAF Coltishall Skylark Mitigation Strategy Addendum Report FINAL 170101.docx

Monitoring of off-site mitigation areas will commence in 2017 in line with the initiation of offsite mitigation measures. Fields included within the Skylark Mitigation Strategy will be surveyed to determine the number of breeding skylark supported. Monitoring visits will continue in line with the schedule agreed with the Local Planning Authority. Monitoring reports will be produced and issued to North Norfolk District Council, Broadland District Council and Norfolk County Council.

A full review of the mitigation strategy will still be carried out in 2018 and 2020. The efficacy of the mitigation strategy will be assessed in consultation with NNDC and BDC. If during the first five years of monitoring, the Local Planning Authority consider that further biodiversity improvements are required on or off the site, then a further scheme shall be submitted to and approved by the LPA and implemented within a timescale to be agreed with the Local Planning Authority.

Survey reports for the agreed survey years 2017, 2018, 2020, 2023 and 2027 will be submitted to the LPA by October following the completion of the survey visits and include analysis of data to assess changes in skylark density and distribution across the solar farm and mitigation sites, review of the success of the mitigation strategy and any recommendations for any changes to the ELS/HLS mitigation measures if required.

## **1 INTRODUCTION**

### **1.1 Background to Commission**

Riverdale Ecology Ltd was commissioned by Scottow Moor Solar Ltd in July 2016 to produce an addendum to the Skylark Mitigation Strategy and Ecological Mitigation and Management Plan (EMEMP) for RAF Coltishall Solar Farm, Llamas, Norfolk. The original report was produced by The Ecology Consultancy in July 2015 and included a skylark mitigation strategy for a period of 10 years and environmental management recommendations for a period of 25 years, the period of operation for the solar farm at the time of the report. The addendum report is required to reflect a proposed extension in the solar farm operation period by five years, from 25 years to 31 years.

### **1.2 Scope of Report**

The purpose of this report is to identify any additional impacts and establish any necessary changes to the EMEMP or Skylark Mitigation Strategy to reflect the change in operation period from 25 to 31 years.

The addendum report is based on a review of the following information sources:

- Environmental Mitigation and Environmental Management Plan (Wild Frontier Ecology, 2014); and
- Environmental Mitigation and Environmental Management Plan (and Skylark Mitigation Strategy) (The Ecology Consultancy, 2015).

The addendum report highlights changes in the original EMEMP and Skylark Mitigation Strategy which have arisen from the proposed change in lifespan from 25 to 31 years and therefore should be read in conjunction with the full EMEMP and Skylark Mitigation Strategy produced by The Ecology Consultancy in July 2015.

The addendum report was written by Danny Thomas CEcol, MCIEEM, Principal Ecologist at Riverdale Ecology Ltd with over 12 years' experience within ecological consultancy. He is a Chartered Ecologist and has a BSc (Hons) in Ecology with Biology and a MSc in Environmental Sciences from the University of East Anglia. Danny has been involved with the delivery of the ecological obligations at the RAF Coltishall Solar Farm since December 2014 and as such is suitably qualified to undertake the assessment of the EMEMP and Skylark Mitigation Strategy.

### **1.3 Description of Development**

The development is a large-scale solar farm comprising two phases of development. Phase 1, completed in March 2015 comprises approximately 70ha of solar panels arranged in rows spaced at between six and eight metres and Phase 2, completed in March 2016, comprises approximately 17ha of solar panels arranged in rows spaced between two and four metres.

## **2 ENVIRONMENTAL MANAGEMENT PLAN**

### **2.1 Grassland Management**

#### **2.1.1 Solar Farm Grassland Management**

Grassland habitat within the Application Site (Phases 1 & 2) shown in Figure 1 in Appendix 1 will be managed appropriately to maintain suitability for nesting skylark over the full 31-year lifespan of the solar farm. Management will principally be through grazing by sheep with a single mechanised cut permitted outside of the skylark nesting season (1<sup>st</sup> April to 15<sup>th</sup> August).

Grazing during the skylark nesting period (1<sup>st</sup> April to 15<sup>th</sup> August) will be managed in order to retain an appropriate sward structure for nesting skylark with stocking densities monitored and adjusted to avoid overgrazing.

#### **2.1.2 Retained Grassland Management**

The following management procedures are relevant to the grassland habitat of the two retained grassland areas shown in Figure 1 in Appendix 1. The two retained grassland areas will be set aside and protected for the purposes of skylark mitigation for the full 31-year lifespan of the solar farm and managed accordingly to maximise the habitat quality for nesting skylark.

Continuation of the current management regime for grassland at the RAF Coltishall Site through low intensity rotational sheep-grazing supplemented by a single mechanised cut in the early autumn is appropriate for maintaining the grassland in suitable condition for nesting skylark and so should be continued as part of the managed regime with minor changes.

Lenient grazing of agricultural grassland (to a sward height of 12-15cm) has been shown to have large and immediate beneficial impacts on invertebrate abundance and utility to skylarks. As such, grazing will be managed during the skylark nesting season (1<sup>st</sup> April to 15<sup>th</sup> August) in such a way as to maintain a variable grassland mosaic with a sward height of 12-15cm.

Within the retained grassland areas during the skylark nesting period (1<sup>st</sup> April – 15<sup>th</sup> August), grassland will be managed by rotational sheep grazing only in order to retain an appropriate sward structure for nesting skylark. Stocking densities will also be monitored and adjusted to avoid overgrazing.

### **2.2 Restrictions to use of Retained Grassland**

#### **2.2.1 Vehicular Access**

Due to the designation of the retained grassland areas for skylark mitigation there are certain activities that would be in conflict with the management of these areas for the benefit of this species.

Vehicle movements on the retained grassland areas will not be permitted within the skylark nesting period, 1<sup>st</sup> April to 15<sup>th</sup> August. Exceptions to this are for vehicular access for the purposes of sheep grazing or for repair and maintenance access only.

Access for vehicles between September and February will be as required. Should any damage to the retained grassland occur re-seeding will take place prior to the commencement of the nesting season using Emorsgate EG10 Tussock Grass Mixture.

#### **2.2.2 Parking/Materials Storage**

The retained grassland areas will not be used for the storage of materials or parking.



### **2.2.3 Future Development**

The retained grassland areas will not be used for any future development for the 31-year lifespan of the solar farm.

### **2.2.4 Annual Statement**

Norfolk County Council will submit an annual statement to confirm they complied with the requirements of the grassland management within the Skylark Mitigation Strategy. The statement will be included within future monitoring reports.

### **3 SKYLARK MITIGATION STRATEGY**

#### **3.1 Period of Commitment**

The basis of the Skylark Mitigation Strategy will remain largely unaltered from the original report (The Ecology Consultancy, 2015) however the term of commitment for the delivery of the Entry Level and Higher Level Stewardship options will increase from the original 10-year plan, agreed with North Norfolk District Council and Broadland District Council in May 2015. The new strategy will operate for a period of 12 years which reflects the 20% increase in lifespan of the solar farm.

Off-site mitigation measures will commence within 12 months of completion in March 2016 of Phase 2 of the solar farm.

The options package will include the same ELS and HLS options at the same annual cost shown in Table 4.1 at the end of this section.

#### **3.2 Skylark Mitigation Strategy Variation for Year 1 (2016/17)**

Delivery of the off-site mitigation measures in line with ELS and HLS options will commence in October 2016. As such each mitigation delivery period will run from 1<sup>st</sup> October to 31<sup>st</sup> September each year. Scheduling the works within these periods will maintain reasonable compatibility with the farming calendar allowing delivery of the different elements at the appropriate time of year.

##### ***Skylark Plots***

The commencement of the mitigation strategy in October is incompatible with providing skylark plots as these are created in autumn sown cereals at the point of drilling (August/September). As such Year 1 (2016/2017) will include alternative options to compensate for the absence of skylark plots. The alternative measures are appropriate to compensate for the skylark plots and include:

- Provision of additional winter stubble (approximately 20 hectares);
- Provision of additional low input spring cereal crops (approximately 20 hectares);
- Retention of low growing cover crops over the winter.

Skylark plots will then be created during sowing in summer 2017 and be in place for Year 2 of the Skylark Mitigation Strategy and the 2018 skylark nesting season. Skylark plots sown in summer Year 12 of the strategy (2028) will be retained until harvest in 2029 to ensure that skylark plots are provided for the full 12 years, in line with the mitigation strategy. As such the alternative measures listed above actually represent additional mitigation measures as the skylark plots will be delivered fully in accordance with plan, albeit starting a year later than proposed.

#### **3.3 Skylark Monitoring Regime**

In compliance with Condition 5 (b) a methodology for monitoring and reporting to North Norfolk District Council and Broadland District Council will be included. Post construction monitoring of the former RAF Coltishall site will be undertaken to determine the number of skylark territories on site and to monitor productivity and distribution of skylark across the Solar Farm Development areas and the retained grassland areas. The survey area will include Phases 1 and 2 of the solar farm, retained grassland areas and all other areas of suitable skylark habitat within the RAF Coltishall site.

The planned 10-year service contract will be increased to 12 years and put in place between Scottow Moor Solar Ltd and the appointed ecological management consultant (Riverdale Ecology Limited).

Skylark monitoring will be carried out by an experienced and competent ornithologist using methods based on the BTO's Common Bird Census technique. This will comprise four monitoring visits spread evenly across the skylark nesting season between mid-April and mid-July. Territory analysis will be carried out to determine the number and distribution of skylark across the site and mitigation areas.

Monitoring has been completed for 2015 and 2016 in accordance with the agreed monitoring programme. To reflect the change in the lifespan of the solar farm and associated change in the proposed mitigation period the remaining monitoring commitment will be increased. The remaining monitoring visits will occur in years 2017, 2018, 2020, 2023 and 2027. Monitoring reports will be produced and issued to North Norfolk District Council, Broadland District Council and Norfolk County Council.

Monitoring of off-site mitigation areas will commence in 2017 in line with the initiation of delivery of offsite mitigation measures. Fields included within the Skylark Mitigation Strategy will be surveyed to determine the number of breeding skylark supported. Monitoring visits will continue in line with the schedule agreed with the Local Planning Authority.

A full review of the mitigation strategy will still be carried out following surveys in 2018 and 2020. The efficacy of the mitigation strategy will be assessed in consultation with NNDC and BDC. If during the first five years of monitoring, the Local Planning Authority consider that further biodiversity improvements are required on or off the site, then a further scheme shall be submitted to and approved by the LPA and implemented within a timescale to be agreed with the Local Planning Authority.

Survey reports for the agreed survey years 2017, 2018, 2020, 2023 and 2027 will be submitted to the LPA by October following the completion of the survey visits and include analysis of data to assess changes in skylark density and distribution across the solar farm and mitigation sites, review of the success of the mitigation strategy and any recommendations for any changes to the ELS/HLS mitigation measures if required. Reports will include maps detailing the locations of fields delivering the different ELS/HLS options for the mitigation strategy.



Table 4.1: 12 Year HLS/ELS Options and Generated Annual Costs

ELS/HLS	Option Title	Option Code	Cost per unit	Unit	Field included	Area (ha)	Annual cost
ELS	4m buffer strips on cultivated land	EE2	£340	ha	0238a	0.25	£85.00
					0238b	0.5	£170.00
					4141	0.6	£204.00
					3371	0.15	£51.00
					<1km RAF Coltishall	0.5	£170.00
HLS	Low input spring cereal to retain or recreate an arable mosaic	HG7 <sup>3</sup>	£250	ha	1km RAF Coltishall (0238, 4141, 3371, 9801)	40	£10,000.00
ELS	Overwintered Stubble	EF6	£120	ha	<1km RAF Coltishall (0238, 4141, 3371, 9801)	40	£4,800.00
ELS	Management of Field Corners	EF1	£400	ha	9801*	0.5	£200.00
ELS	Skylark Plot (2 per hectare)	EF8	£18	ha	<1km RAF Coltishall	30	£540.00
					Non specified fields	50	£900.00
* Suggested field location							£17,120.00 PA



#### 4 References

The Ecology Consultancy (2015) *RAF Coltishall Solar Farm Skylark Mitigation Strategy and Ecological Mitigation and Environmental Management Plan (EMEMP)*. Report for Scottow Moor Solar Ltd.

Wild Frontier Ecology (2014) *RAF Coltishall Solar Farm Ecological Mitigation and Environmental Management Plan*. Report for Scottow Moor Solar Ltd.

## Appendix 1: Site Plan

**RAF Coltishall Solar Farm:  
Site Layout**

Date: July 2016

**KEY**

- Phase 1
- Phase 2
- Retained grassland

0 250 Metres

## **APPENDIX 1**

### **Safeguarded Areas Plan**





Executed as a Deed by SCOTTOW  
MOOR SOLAR LIMITED acting by  
David Fyfe, in the presence of:


  
.....  
DIRECTOR

  
.....

*C. Brown County Hall Women*  
~~DONNA CLARKE~~  
~~214 BRAVINGTON ROAD~~  
~~LONDON W9 3AP~~

WITNESS

THE COMMON SEAL of the  
NORFOLK COUNTY COUNCIL  
was hereunto affixed in the  
presence of:

  
authorised to sign  
on behalf of: HEAD OF LAW  
Head of Law



42028

**THE COMMON SEAL OF  
NORTH NORFOLK DISTRICT COUNCIL**

was affixed in the presence of:

Authorised Signatory



Authorised Signatory



**THE COMMON SEAL OF  
BROADLAND DISTRICT COUNCIL**

was affixed in the presence of:

Authorised Signatory



Authorised Signatory



Head of Democratic Services and  
Monitoring Officer