

# Lullington Solar Farm



## Breeding Bird Survey Report

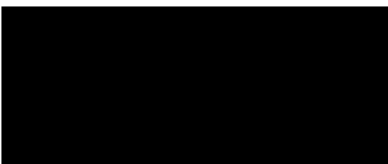
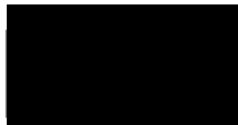
B023978 v1

Lullington Solar Park Limited

July 2021

# Document Control

|                     |                                                                                                                                              |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Document:</b>    | <b>Breeding Bird Survey Report</b>                                                                                                           |
| <b>Project:</b>     | Lullington Solar Park                                                                                                                        |
| <b>Client:</b>      | Lullington Solar Park Limited                                                                                                                |
| <b>Job Number:</b>  | B023978                                                                                                                                      |
| <b>File Origin:</b> | <a href="#">\\LDS-DC-VM-002\Group Ecology\Projects\Projects 784-B000000\B023978 Lullington Solar Farm\REPORTS\Breeding Birds\Full Report</a> |

|                                                                                                                                                |                            |                                                                                                                                              |                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Revision:                                                                                                                                      | 1                          | Status:                                                                                                                                      | Final                                                                                                                                                       |
| Date:                                                                                                                                          | 13 <sup>th</sup> July 2021 |                                                                                                                                              |                                                                                                                                                             |
| Prepared by:<br>Luke Verrall MCIEEM<br>Senior Ecologist<br> |                            | Checked by:<br>John Simper MCIEEM<br>Senior Ecologist<br> | Approved by:<br>Jonathan Jackson CEnv MCIEEM<br>Principal Ecologist<br> |

|                                  |                                                            |         |       |
|----------------------------------|------------------------------------------------------------|---------|-------|
| Revision:                        | 2                                                          | Status: | Final |
| Date:                            | 6 <sup>th</sup> August 2021                                |         |       |
| Description on changes           | Amended to reflect comments relating to skylark mitigation |         |       |
| Approved by:<br>Jonathan Jackson |                                                            |         |       |

|                                   |                                                        |         |       |
|-----------------------------------|--------------------------------------------------------|---------|-------|
| Revision:                         | 3                                                      | Status: | Final |
| Date:                             | 20 <sup>th</sup> September 2021                        |         |       |
| Description on changes            | Amended to skylark mitigation following plot revisions |         |       |
| Approved by:<br>Elizabeth Sanders |                                                        |         |       |

## CONTENTS

---

|                                                                                    |           |
|------------------------------------------------------------------------------------|-----------|
| <b>1.0 INTRODUCTION .....</b>                                                      | <b>5</b>  |
| 1.1 Background .....                                                               | 5         |
| 1.2 Site Location.....                                                             | 5         |
| 1.3 Development Proposals .....                                                    | 5         |
| 1.4 Purpose of the Report .....                                                    | 5         |
| <b>2.0 METHODOLOGY .....</b>                                                       | <b>5</b>  |
| 2.1 Desk Study .....                                                               | 5         |
| 2.1.1 Previous Reports .....                                                       | 5         |
| 2.1.2 Local Ecological Records Centre .....                                        | 6         |
| 2.1.3 MAGIC Website .....                                                          | 6         |
| 2.2 Breeding Bird Surveys .....                                                    | 6         |
| 2.3 Limitations .....                                                              | 7         |
| <b>3.0 BASELINE CONDITIONS .....</b>                                               | <b>7</b>  |
| 3.1 Desk Study .....                                                               | 7         |
| 3.1.1 Previous Reports .....                                                       | 7         |
| 3.1.2 MAGIC .....                                                                  | 8         |
| 3.1.3 Ornithological Records .....                                                 | 8         |
| 3.2 Field Survey .....                                                             | 9         |
| 3.2.1 Breeding Protected / Notable Species.....                                    | 9         |
| 3.2.2 Breeding BoCC Green List Species .....                                       | 12        |
| 3.2.3 Non-breeding Species and Introduced Species .....                            | 13        |
| 3.2.4 Incidental Records .....                                                     | 15        |
| <b>4.0 RELEVANT PLANNING POLICY &amp; LEGISLATION .....</b>                        | <b>16</b> |
| 4.1 Revised National Planning Policy Framework .....                               | 16        |
| 4.2 Biodiversity 2020: A strategy for England's Wildlife & Ecosystem Services..... | 17        |
| 4.3 Local Plan.....                                                                | 17        |
| 4.4 Local Biodiversity Action Plan .....                                           | 18        |
| 4.5 Legislation .....                                                              | 18        |
| 4.5.1 Wildlife and Countryside Act 1981 (as amended) .....                         | 18        |
| 4.5.2 Natural Environment and Rural Communities Act 2006 (NERC Act) .....          | 18        |
| 4.5.3 Birds of Conservation Concern (BoCC).....                                    | 18        |
| <b>5.0 DISCUSSION .....</b>                                                        | <b>19</b> |
| 5.1 Designated Sites .....                                                         | 19        |
| 5.1.1 Internationally Designated Sites .....                                       | 19        |

|                                                  |           |
|--------------------------------------------------|-----------|
| 5.1.2 Sites of Special Scientific Interest ..... | 19        |
| 5.1.3 Local Nature Reserves .....                | 20        |
| 5.1.4 Local Wildlife Sites.....                  | 20        |
| 5.2 Impacts and Opportunities .....              | 20        |
| 5.2.1 Potential Impacts .....                    | 20        |
| <b>6.0 SUMMARY .....</b>                         | <b>23</b> |
| <b>7.0 REFERENCES .....</b>                      | <b>24</b> |
| <b>FIGURES .....</b>                             | <b>25</b> |
| <b>APPENDIX A – REPORT CONDITIONS .....</b>      | <b>26</b> |
| <b>APPENDIX B – KEY LEGISLATION .....</b>        | <b>27</b> |



## EXECUTIVE SUMMARY

| Contents                         | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Site Location</b>             | The site is located on land north of Lullington, Derbyshire and is centred at Ordnance Survey National Grid Reference SK 24750 13763.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Proposals</b>                 | The development proposal is for the installation of a ground mounted solar farm within the c. 70 ha of agricultural land north of the village of Lullington.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Existing Site Information</b> | An Ecological Appraisal of the site was conducted by WYG in 2019 (WYG is now part of Tetra Tech). This identified suitable habitats to support breeding birds within and adjacent to the site and further surveys were therefore recommended.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Scope of this Survey(s)</b>   | Four breeding bird surveys (undertaken once per month, March to June inclusive) were completed to determine the presence of protected / notable breeding birds on site, as well as to assess the general site assemblage of birds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Results</b>                   | <p>There are no internationally designated sites with birds as qualifying features within proximity to the site that would be affected by the development proposals. In addition, it is considered unlikely that the proposed development would have any significant impact upon bird populations associated with any SSSIs, LNRs or LWSs.</p> <p>Of the 55 species recorded, three were W&amp;CA Schedule 1 list species, nine were BoCC Red list species and 11 were BoCC Amber list species. Furthermore, 12 species listed as SPI under the NERC Act were recorded during the surveys.</p> <p>The protected / notable birds with the largest number of potential breeding territories on site included dunnock, skylark and yellowhammer. BoCC Green species with the largest number of potential breeding territories included wren, blue tit, blackbird, robin and chaffinch.</p> <p>Other notable but non-breeding birds on site included meadow pipit, hobby, greylag goose, reed bunting, herring gull, grey partridge, bullfinch, redwing, fieldfare and lapwing.</p>                                                                                                                                                                                      |
| <b>Recommendations</b>           | <ul style="list-style-type: none"> <li>• All vegetation and grassland clearance should occur outside of the bird breeding season, or if this is not possible, clearance of vegetation will require supervision by a suitably experienced ecologist.</li> <li>• During the construction-phase of the development, any retained habitats should be protected from accidental damage through the use of exclusion fencing. Similarly, the potential negative impacts of artificial lighting upon breeding birds / foraging owls should be taken into consideration and avoided or minimised, wherever possible.</li> <li>• The loss of arable crop land is predicted to cause a reduction in available ground nesting habitat for some species e.g. skylark. This will be mitigated by the creation of 10 skylark plots in one field to the south of the site boundary for each breeding season for the operational lifespan of the proposals. With this in place, it is considered that the value of the site and adjacent habitats will be retained for ground nesting species of bird.</li> <li>• Grassland, hedgerows, woodland and scrub creation and enhancement will be of benefit to breeding birds on site, and form a significant positive effect.</li> </ul> |

## GLOSSARY

---

|                      |                                                                     |
|----------------------|---------------------------------------------------------------------|
| BLMP                 | Biodiversity and Landscape Management Plan                          |
| BoCC                 | Bird of Conservation Concern                                        |
| BTO                  | British Trust for Ornithology                                       |
| CEnv                 | Chartered Environmentalist                                          |
| CIEEM                | Chartered Institute of Ecology & Environmental Management           |
| DEFRA                | Department for Environment, Food & Rural Affairs                    |
| DWT                  | Derbyshire Wildlife Trust                                           |
| Habitats Regulations | Conservation of Habitats and Species Regulations 2017 (as amended)  |
| HAP                  | Habitat Action Plan                                                 |
| HPI                  | Habitat(s) of Principal Importance                                  |
| JNCC                 | Joint Nature Conservation Committee                                 |
| LBAP                 | Local Biodiversity Action Plan                                      |
| LDBAP                | Lowland Derbyshire Biodiversity Action Plan                         |
| LWS                  | Local Wildlife Site                                                 |
| MCIEEM               | Member of Chartered Institute of Ecology & Environmental Management |
| NE                   | Natural England                                                     |
| NERC Act             | Natural Environment and Rural Communities Act 2006                  |
| NPPF                 | National Planning Policy Framework                                  |
| pLWS                 | Potential Local Wildlife Site                                       |
| SAC                  | Special Area of Conservation                                        |
| SAP                  | Species Action Plan                                                 |
| SER                  | Staffordshire Ecological Records                                    |
| SPA                  | Special Protection Area                                             |
| SPI                  | Species of Principal Importance                                     |
| SSSI                 | Site of Special Scientific Interest                                 |
| W&CA/WCA             | Wildlife & Countryside Act 1981 (as amended)                        |

## 1.0 INTRODUCTION

### 1.1 BACKGROUND

Tetra Tech (formally WYG) was commissioned by Lullington Solar Park Limited on 16<sup>th</sup> March 2021 to undertake Breeding Bird Surveys of the site known as Lullington Solar Farm, Derbyshire. The location of the site is shown in Figure 1.

During the Ecological Appraisal of the site (WYG, 2019) habitats across and adjacent to the site were identified as being suitable to support breeding birds.

An interim breeding bird survey report was produced by Tetra Tech to provide survey results from the first two surveys on site during March and April 2021 (Tetra Tech, 2021). This report therefore provides the combined survey results from all survey visits.

This report has been prepared by Senior Ecologist Luke Verrall BSc (Hons) MCIEEM, and the conditions pertinent to it are provided in Appendix A.

### 1.2 SITE LOCATION

The site is located on land north of Lullington, Derbyshire and is centred at Grid Reference SK 24750 13763. The site is c. 70 ha and comprises of arable fields with some improved grassland fields, associated ponds, hedgerows and field boundaries. A small block of woodland is also present within the site boundary.

The site is partially bordered by Garland Woods to the north and west and further arable and improved grassland fields to the north, south and east. The wider area consists largely of agricultural land, small settlements and several woodlands including Coton Wood 0.4 km to the north, the village of Lullington 0.5 km to the south, agricultural land to the east and Homestall Wood Local Wildlife Site (LWS) 0.4 km to the west.

### 1.3 DEVELOPMENT PROPOSALS

The development proposal is for the installation of a ground mounted solar farm within the c. 70 ha of agricultural land north of the village of Lullington.

### 1.4 PURPOSE OF THE REPORT

The purpose of the report is to:

- Outline the legislative protection given to birds;
- Detail existing bird records and locally designated sites of relevance to birds;
- Summarise the findings of the bird surveys and report on the presence or otherwise of breeding bird species on and directly adjacent to the site; and
- Provide an assessment of the potential ecological constraints to the proposed works at the site and recommendations for further survey, avoidance, mitigation and enhancement where appropriate.

## 2.0 METHODOLOGY

### 2.1 DESK STUDY

#### 2.1.1 Previous Reports

An Ecological Appraisal (WYG, 2019) for the site was reviewed for all information relating to birds and the immediate habitats on site.

An Interim Breeding Bird Survey Report was produced by Tetra Tech to provide survey results from the first two surveys on site during March and April 2021 (Tetra Tech, 2021).

### 2.1.2 Local Ecological Records Centre

As part of the Ecological Appraisal (WYG, 2019), information was requested from both Derbyshire Wildlife Trust (DWT) and Staffordshire Ecological Records (SER) on protected or notable bird species records, within 2 km of the site, due to the site's position on the county boundary.

### 2.1.3 MAGIC Website

The MAGIC website (managed by DEFRA) was consulted for the location of any statutory sites designated for birds, such as Special Protection Areas (SPAs), within 15 km of the site. The search was conducted in July 2021.

## 2.2 BREEDING BIRD SURVEYS

---

Surveys were carried out by the following experienced ornithologists:

- Tetra Tech Senior Ecologist David Goddard (DG) MCIEEM. David has over 30 years' experience of undertaking breeding bird surveys.
- Tetra Tech Senior Ecologist Luke Verrall (LV) MCIEEM. Luke has over 12 years' experience of undertaking breeding bird surveys.
- Tetra Tech Project Ecologist Jonathan Siberry (JS) ACIEEM. Jonathan has over five years' experience of undertaking breeding bird surveys.

The survey methodology involves four survey visits to the site, which are made during the breeding season, one per month in March to June (inclusive), using the standard territory (registration) mapping techniques as detailed in Bibby *et al.* (2007). Surveys took place shortly after sunrise in favourable weather conditions, as recommended by survey methodology guidance (Gilbert *et al.*, 2002). The survey area included the site and adjacent habitats.

This method is based on the observation that many species are territorial during the breeding season. This is found particularly amongst passerines (songbirds), where territories are often marked by conspicuous song, display, and periodic disputes with neighbouring individuals. Registrations of birds were recorded on an appropriate field map, using standard British Trust for Ornithology (BTO) two letter species codes and activity codes (Gilbert *et al.*, 2002). For the purposes of this survey the registrations recorded on the field maps provide data to form an indication of the number of territories. All field boundaries were walked and all features with potential to be suitable for to support breeding birds were surveyed from a distance of no more than 50 m.

For recording passerines, specific symbols were used for singing, calling, movements of the same bird between different areas, flying, carrying food, nest building, aggressive encounters and other notable behaviour. The expected outcome of this technique is that mapped registrations fall into clusters, approximately coinciding with territories. Where a species has closely packed territories (e.g. Reed Warbler *Acrocephalus scirpaceus*), the mapping of simultaneously singing birds becomes essential. Additional data are also gathered regarding breeding birds during additional ecological surveys on site.

The following meteorological variables were recorded at both the start and end of each survey:

- Cloud cover (Oktas; 0/8 – clear sky, to 8/8 - total cloud cover);
- Wind speed (Beaufort scale; Force 0 – no wind, to Force 6 – strong wind (note: surveys should not be carried out above Force 6 wind));
- Temperature (°C);
- Precipitation; and



- Visibility (excellent, good, moderate or poor).

The transect route was walked at a steady pace in suitable weather conditions (i.e. dry and clear) in order to locate and identify individual birds. Owing to the site size, it was necessary to split the site into two transects for the bird surveys which were either completed by one surveyor over two days, or two surveyors on one day.

The dates, timings and weather conditions of each survey occasion are presented in Table 1.

**Table 1: Survey Dates and Weather Conditions**

| Survey Date | Surveyor | Times |       | Temp °C |      | Cloud Cover | Wind Speed / Direction | Precipitation                  |
|-------------|----------|-------|-------|---------|------|-------------|------------------------|--------------------------------|
|             |          | Start | End   | Start   | End  |             |                        |                                |
| 24/03/2021  | DG       | 05:55 | 08:45 | 7       | 9    | 7/8 → 8/8   | 1 / SW                 | Light rain from 08:11 to 08:45 |
| 25/03/2021  | DG       | 05:50 | 08:40 | 3       | 8    | 5/8 → 7/8   | 1 → 2 / SW             | Nil                            |
| 15/04/2021  | DG       | 05:40 | 08:42 | -2      | 3    | 1/8         | 0 → 1 / N              | Nil                            |
| 16/04/2021  | DG       | 05:40 | 08:51 | -2      | 2    | 1/8 → 2/8   | 0 → 1 / NNW            | Nil                            |
| 25/05/2021  | LV & JS  | 04:50 | 06:39 | 7.8     | 8.6  | 8/8         | 2 → 3 / W              | Very light rain briefly        |
| 22/06/2021  | LV       | 04:50 | 06:45 | 9.6     | 11.1 | 8/8 → 4/8   | 1 → 2 / E              | Nil                            |
| 23/06/2021  | LV       | 05:05 | 06:55 | 7.0     | 11.6 | 0/8         | 0 → 1                  | Nil                            |

## 2.3 LIMITATIONS

Due to the complexity of avian behaviour some degree of subjectivity is inevitably involved in this assessment. For example, skylark *Alauda arvensis* fly high when singing and therefore it is difficult to establish exactly where territories potentially begin and end. However, overall the survey is considered to offer a high degree of accuracy in assessing the range of species breeding within the site and their relative abundance.

The details of this report will remain **valid for a period of one breeding bird season (i.e. the 2022 breeding bird season)**. Should a planning application for the site not be submitted prior to the start of the 2023 breeding bird season (i.e. before March 2023), then the validity of this assessment should be reviewed to determine whether further updates are necessary. Note that the recommendations within this report should be reviewed (and reassessed if necessary) should there be any changes to the red line boundary or if the development proposals change.

## 3.0 BASELINE CONDITIONS

### 3.1 DESK STUDY

#### 3.1.1 Previous Reports

**Lullington Solar Farm: Ecological Appraisal (WYG, 2019)**

An Ecological Appraisal was undertaken by Tetra Tech (formally WYG) in August 2019 (WYG, 2019) which considered that further surveys for breeding birds would be required due to suitable breeding habitats being present on and adjacent to the site, including hedgerows, woodlands, arable fields and standing water.

A total of one Site of Special Scientific Interest (SSSI) and 12 Local Wildlife Sites (LWS) or Potential LWS (pLWS) were present within 2 km which, although they do include habitats that protected and / or notable birds could utilise, such as woodland, open water, grassland and hedgerow, did not have birds listed as qualifying feature species.

It was noted that the site lies within the Lowland Derbyshire Biodiversity Action Plan (LDBAP) which is split into eight areas. The site is situated within the 'Derby Action Area' which does not contain any action plans for any bird species.

### 3.1.2 MAGIC

The search of the MAGIC website (DEFRA's interactive, web-based database for statutory designations) identified no international statutory sites designated for breeding bird assemblage within 15 km of the site.

The River Mease SAC and SSSI, which lies c. 1.78 km to the south, contains habitats that could support breeding birds. However, the site citations do not specifically list breeding birds as a feature (see Table 3 of the Ecological Appraisal (WYG, 2019)).

### 3.1.3 Ornithological Records

The data provided by DWT and SER contained records for 32 bird species within 2 km of the site. These records are summarised in Table 2 where their conservation status is also given.

**Table 2: Bird Species Returned by DWT and SER within 2 km of Site**

| Common Name       | Scientific Name                   | Status*              | No. of Records | Most Recent Record |
|-------------------|-----------------------------------|----------------------|----------------|--------------------|
| Lesser redpoll    | <i>Acanthis cabaret</i>           | BoCC Red             | 1              | 2011               |
| Skylark           | <i>Alauda arvensis</i>            | BoCC Red             | 9              | 2016               |
| Kingfisher        | <i>Alcedo atthis</i>              | WCA_Sch1, BoCC Amber | 2              | 2017               |
| Eurasian teal     | <i>Anas crecca</i>                | BoCC Amber           | 1              | 2017               |
| Mallard           | <i>Anas platyrhynchos</i>         | BoCC Amber           | 5              | 2016               |
| Meadow pipit      | <i>Anthus pratensis</i>           | BoCC Amber           | 1              | 2016               |
| Swift             | <i>Apus apus</i>                  | BoCC Amber           | 2              | 2016               |
| Black-headed gull | <i>Chroicocephalus ridibundus</i> | BoCC Amber           | 6              | 2017               |
| Stock dove        | <i>Columba oenas</i>              | BoCC Amber           | 6              | 2017               |
| Mute swan         | <i>Cygnus olor</i>                | BoCC Amber           | 5              | 2017               |
| House Martin      | <i>Delichon urbicum</i>           | BoCC Amber           | 6              | 2017               |
| Yellowhammer      | <i>Emberiza citrinella</i>        | SPI, BoCC Red        | 11             | 2017               |
| Reed bunting      | <i>Emberiza schoeniclus</i>       | SPI, BoCC Amber      | 8              | 2017               |
| Hobby             | <i>Falco Subbuteo</i>             | WCA_Sch1, BoCC Green | 1              | 2017               |

| Common Name                                                                                                                                                                                                                                                                                                                                                                                           | Scientific Name                 | Status*              | No. of Records | Most Recent Record |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------------|----------------|--------------------|
| Kestrel                                                                                                                                                                                                                                                                                                                                                                                               | <i>Falco tinnunculus</i>        | BoCC Amber           | 9              | 2017               |
| Brambling                                                                                                                                                                                                                                                                                                                                                                                             | <i>Fringilla montifringilla</i> | WCA_Sch1, BoCC Green | 2              | 2011               |
| Lesser black-backed gull                                                                                                                                                                                                                                                                                                                                                                              | <i>Larus fuscus</i>             | BoCC Amber           | 8              | 2017               |
| Common linnet                                                                                                                                                                                                                                                                                                                                                                                         | <i>Linaria cannabina</i>        | SPI, BoCC Red        | 7              | 2017               |
| Red kite                                                                                                                                                                                                                                                                                                                                                                                              | <i>Milvus milvus</i>            | WCA_Sch1, BoCC Green | 1              | 2016               |
| Yellow wagtail                                                                                                                                                                                                                                                                                                                                                                                        | <i>Motacilla flava</i>          | SPI, BoCC Red        | 3              | 2008               |
| House sparrow                                                                                                                                                                                                                                                                                                                                                                                         | <i>Passer domesticus</i>        | SPI, BoCC Red        | 13             | 2017               |
| Tree sparrow                                                                                                                                                                                                                                                                                                                                                                                          | <i>Passer montanus</i>          | SPI, BoCC Red        | 5              | 2016               |
| Willow warbler                                                                                                                                                                                                                                                                                                                                                                                        | <i>Phylloscopus trochilus</i>   | BoCC Amber           | 3              | 2016               |
| Dunnock                                                                                                                                                                                                                                                                                                                                                                                               | <i>Prunella modularis</i>       | SPI, BoCC Amber      | 14             | 2017               |
| Bullfinch                                                                                                                                                                                                                                                                                                                                                                                             | <i>Pyrrhula pyrrhula</i>        | SPI, BoCC Amber      | 4              | 2016               |
| Tawny owl                                                                                                                                                                                                                                                                                                                                                                                             | <i>Strix aluco</i>              | BoCC Amber           | 1              | 2011               |
| Starling                                                                                                                                                                                                                                                                                                                                                                                              | <i>Sturnus vulgaris</i>         | SPI, BoCC Red        | 12             | 2017               |
| Redwing                                                                                                                                                                                                                                                                                                                                                                                               | <i>Turdus iliacus</i>           | WCA_Sch1, BoCC Red   | 2              | 2017               |
| Song thrush                                                                                                                                                                                                                                                                                                                                                                                           | <i>Turdus philomelos</i>        | SPI, BoCC Red        | 12             | 2017               |
| Fieldfare                                                                                                                                                                                                                                                                                                                                                                                             | <i>Turdus pilaris</i>           | WCA_Sch1, BoCC Red   | 2              | 2017               |
| Mistle thrush                                                                                                                                                                                                                                                                                                                                                                                         | <i>Turdus viscivorus</i>        | BoCC Red             | 5              | 2017               |
| Lapwing                                                                                                                                                                                                                                                                                                                                                                                               | <i>Vanellus vanellus</i>        | SPI, BoCC Red        | 2              | 2015               |
| <p>* <b>Key</b></p> <ul style="list-style-type: none"> <li>WCA_Sch1 – Species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended)</li> <li>SPI – Species of Principal Importance as listed on Section 41 of the Natural Environment and Rural Communities Act 2006</li> <li>BoCC – Species listed as Red, Amber or Green on the Birds of Conservation Concern lists</li> </ul> |                                 |                      |                |                    |

## 3.2 FIELD SURVEY

A total of 55 bird species were recorded during the breeding bird surveys. Of this total, 23 species were considered to be breeding and 32 were considered to be non-breeding.

### 3.2.1 Breeding Protected / Notable Species

Of the 55 species recorded, three were W&CA Schedule 1 list species, nine were BoCC Red list species and 11 were BoCC Amber list species. Furthermore, 12 species are listed as SPI under the NERC Act.

Within these numbers, five BoCC Red List and two BoCC Amber List species were considered to have bred on or adjacent to the site. These notable species, along with their breeding status, are summarised in Table 3, and shown on Figure 3 (BoCC Red Species) and Figure 4 (BoCC Amber Species).



Notes on 'breeding status' within Table 3 **Error! Reference source not found.** are made with reference to the four categories and related avian behaviours / evidence detailed below:

- 1) **Confirmed** – examples of confirmed breeding include:
  - Recently fledged or downy young;
  - Adult carrying faecal sac or food for young;
  - Nests containing eggs;
  - Nest with young seen or heard; and
  - Distraction displays / injury feigning.
- 2) **Probable** – examples of probable breeding include:
  - Pair seen in suitable habitat;
  - Permanent territory (defended over at least two survey visits);
  - Courtship and display;
  - Visiting potential nest site;
  - Agitated behaviour; and
  - Nest building / hole excavation.
- 3) **Possible** – examples of possible breeding include:
  - Observed in suitable nesting habitat; and
  - Singing male.
- 4) **Non-breeder** – examples of non-breeding behaviour include:
  - Overflying;
  - Migrant;
  - Summering non-breeder; and
  - Observed in unsuitable nesting habitat.

In addition, with reference to Table 3, it should be noted that the presence of a potential territory does not indicate the total number of breeding territories / pairs, but rather the maximum number of potential breeding territories / pairs recorded during the season when surveys were completed. The Birds of Conservation Concern comes from Eaton *et al.* (2015) and their status in Derbyshire has been taken from Frost and Shaw (2013).

**Table 3: Protected / Notable Breeding Bird Species Recorded Within or Directly Adjacent to the Site**

| Scientific Name                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Common Name    | BTO Code | No. of Potential Territories | Breeding Status | Associated Habitat                                    | Peak Count | Conservation Status* | Derbyshire Status                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------|------------------------------|-----------------|-------------------------------------------------------|------------|----------------------|----------------------------------------|
| <i>Alauda arvensis</i>                                                                                                                                                                                                                                                                                                                                                                                                                                             | Skylark        | S.       | 17**                         | Probable        | Open arable farmland.                                 | 25         | SPI; BoCC Red        | A common resident and passage migrant. |
| <i>Columba oenas</i>                                                                                                                                                                                                                                                                                                                                                                                                                                               | Stock dove     | SD       | 1                            | Possible        | Bare ground within arable fields and scattered trees. | 12         | BoCC Amber           | A fairly common resident.              |
| <i>Emberiza citrinella</i>                                                                                                                                                                                                                                                                                                                                                                                                                                         | Yellowhammer   | Y.       | 18                           | Probable        | Hedgerows, scrub and arable land.                     | 37         | SPI; BoCC Red        | A common resident.                     |
| <i>Linaria cannabina</i>                                                                                                                                                                                                                                                                                                                                                                                                                                           | Linnet         | LI       | 4                            | Confirmed       | Hedgerows and scrub.                                  | 14         | SPI; BoCC Red        | A common resident.                     |
| <i>Prunella modularis</i>                                                                                                                                                                                                                                                                                                                                                                                                                                          | Dunnock        | D.       | 18                           | Probable        | Hedgerows, scrub, arable fields.                      | 24         | SPI; BoCC Amber      | An abundant resident.                  |
| <i>Motacilla flava</i>                                                                                                                                                                                                                                                                                                                                                                                                                                             | Yellow wagtail | YW       | 2                            | Probable        | Hedgerows and arable crops.                           | 5          | SPI; BoCC Red        | Fairly common summer visitor.          |
| <i>Turdus philomelos</i>                                                                                                                                                                                                                                                                                                                                                                                                                                           | Song thrush    | ST       | 1                            | Probable        | Woodland and scrub.                                   | 3          | SPI; BoCC Red        | A common resident and partial migrant. |
| <p><b>*Key</b></p> <ul style="list-style-type: none"> <li>• WCA_Sch1 – Species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended)</li> <li>• SPI – Species listed on Section 41 of the NERC Act.</li> <li>• BoCC – Species listed on the Birds of Conservation Concern Red or Amber lists.</li> </ul> <p><b>**</b> Note that it is very difficult to estimate the number of skylark territories, so this is a very approximate figure.</p> |                |          |                              |                 |                                                       |            |                      |                                        |

### 3.2.2 Breeding BoCC Green List Species

The 16 BoCC Green Listed species in Table 4 were recorded on and directly adjacent to the site. These include those or not listed under the BoCC as they are introduced (denoted by a '\*').

**Table 4: BoCC Green listed Birds Recorded Breeding within or directly adjacent to the Site**

| Scientific Name               | Common Name     | BTO Code | No. of Potential Territories | Breeding Status | Associated Habitat                              | Derbyshire Status                                                            |
|-------------------------------|-----------------|----------|------------------------------|-----------------|-------------------------------------------------|------------------------------------------------------------------------------|
| <i>Aegithalos caudatus</i>    | Long-tailed tit | LT       | 1                            | Possible        | Hedgerows, scrub / trees and woodland           | A fairly common resident.                                                    |
| <i>Buteo buteo</i>            | Buzzard         | BZ       | 1                            | Confirmed       | Woodland, open grassland.                       | A fairly common and increasing resident, passage migrant and winter visitor. |
| <i>Carduelis carduelis</i>    | Goldfinch       | GO       | 2                            | Possible        | Hedgerows, scrub and scattered trees.           | An increasingly common resident and summer visitor.                          |
| <i>Columba palumbus</i>       | Woodpigeon      | WP       | 6                            | Probable        | Hedgerows, scrub, trees and woodland            | An abundant resident and passage migrant.                                    |
| <i>Corvus corone</i>          | Carrion crow    | C.       | 5                            | Confirmed       | Scattered trees, scrub, arable and woodland.    | A common resident.                                                           |
| <i>Corvus monedula</i>        | Jackdaw         | JD       | 1                            | Confirmed       | Scattered trees, scrub, arable and woodland.    | A common resident.                                                           |
| <i>Cyanistes caeruleus</i>    | Blue tit        | BT       | 9                            | Confirmed       | Hedgerows, scrub, scattered trees and woodland. | An abundant resident.                                                        |
| <i>Erithacus rubecula</i>     | Robin           | R.       | 10                           | Probable        | Hedgerows, scrub, scattered trees and woodland. | A common resident and winter visitor.                                        |
| <i>Fringilla coelebs</i>      | Chaffinch       | CH       | 7                            | Probable        | Hedgerows, scrub, scattered trees and woodland. | A common resident, passage migrant and winter visitor.                       |
| <i>Parus major</i>            | Great tit       | GT       | 3                            | Confirmed       | Hedgerows, scrub, scattered trees and woodland. | A common resident.                                                           |
| <i>Phylloscopus collybita</i> | Chiffchaff      | CC       | 3                            | Probable        | Hedgerows, scrub, scattered trees and woodland. | A fairly common summer visitor and scarce winter visitor.                    |

| Scientific Name                | Common Name | BTO Code | No. of Potential Territories | Breeding Status | Associated Habitat                              | Derbyshire Status                                           |
|--------------------------------|-------------|----------|------------------------------|-----------------|-------------------------------------------------|-------------------------------------------------------------|
| <i>Pica pica</i>               | Magpie      | MG       | 2                            | Probable        | Hedgerows, scrub, scattered trees and woodland. | A common or abundant resident.                              |
| <i>Sylvia atricapilla</i>      | Blackcap    | BC       | 2                            | Possible        | Scrub, scattered trees and woodland.            | A fairly common summer visitor and uncommon winter visitor. |
| <i>Sylvia communis</i>         | Whitethroat | WH       | 4                            | Confirmed       | Hedgerows, scrub, scattered trees and woodland. | A fairly common summer visitor.                             |
| <i>Troglodytes troglodytes</i> | Wren        | WR       | 19                           | Probable        | Hedgerows, scrub, scattered trees and woodland. | An abundant resident.                                       |
| <i>Turdus merula</i>           | Blackbird   | B.       | 11                           | Probable        | Hedgerows, scrub, scattered trees and woodland. | An abundant resident, passage migrant and winter visitor.   |

### 3.2.3 Non-breeding Species and Introduced Species

Of the 55 bird species recorded within the survey area, 32 did not exhibit breeding behaviour and are shown in Table 5.

**Table 5: Non-breeding Birds Within or Directly Adjacent to the Site**

| Scientific Name           | Common Name          | BTO Code | Comments                                                                                      | Status*                 |
|---------------------------|----------------------|----------|-----------------------------------------------------------------------------------------------|-------------------------|
| <i>Accipiter nisus</i>    | Sparrowhawk          | SH       | Overflow the centre of site on one occasion.                                                  | BoCC Green              |
| <i>Alectoris rufa</i>     | Red-legged partridge | RL       | Present within arable fields on all but the final visit.                                      | Introduced - Not listed |
| <i>Anthus prateris</i>    | Meadow pipit         | MP       | Present on hedgerows during the first two visits.                                             | BoCC Amber              |
| <i>Apus apus</i>          | Swift                | SI       | Individual overflow site on final visit.                                                      | BoCC Amber              |
| <i>Anas platyrhynchos</i> | Mallard              | MA       | Present in arable fields and overflying site on all but final visit.                          | BoCC Amber              |
| <i>Anser anser</i>        | Greylag goose        | GJ       | A late wintering flock in March and a couple of pairs loafing about the arable fields in May. | BoCC Amber              |
| <i>Ardea cinerea</i>      | Grey heron           | H.       | Four birds overflying site in March.                                                          | BoCC Green              |

| Scientific Name                   | Common Name              | BTO Code | Comments                                                                                           | Status*                 |
|-----------------------------------|--------------------------|----------|----------------------------------------------------------------------------------------------------|-------------------------|
| <i>Branta canadensis</i>          | Canada goose             | CG       | Small flocks present in arable fields and overflying site during March visit.                      | Not listed              |
| <i>Carduelis chloris</i>          | Greenfinch               | GR       | Individual on a hedgerow in the east of site in March.                                             | BoCC Green              |
| <i>Chroicocephalus ridibundus</i> | Black-headed gull        | BH       | Small flocks roosting on site in March and an individual overflying site in April.                 | BoCC Amber              |
| <i>Corvus corax</i>               | Raven                    | RN       | Individuals roosting on site in March and April.                                                   | BoCC Green              |
| <i>Corvus frugilegus</i>          | Rook                     | RO       | Individual overflow east of site in April.                                                         | BoCC Green              |
| <i>Dendrocopus major</i>          | Great spotted woodpecker | GS       | Individual heard drumming to north of site in June.                                                | BoCC Green              |
| <i>Emberiza schoeniclus</i>       | Reed bunting             | RB       | Individuals observed on hedgerows during March and April.                                          | SPI; BoCC Amber         |
| <i>Falco subbuteo</i>             | Hobby                    | HY       | Single bird foraging high over the site heading north in June.                                     | WCA_Sch1; BoCC Green    |
| <i>Fulica atra</i>                | Coot                     | CO       | Two birds recorded on two different waterbodies on site in March and April.                        | BoCC Green              |
| <i>Gallinula chloropus</i>        | Moorhen                  | MH       | Individual birds present at standing water and woodland in March and April.                        | BoCC Green              |
| <i>Garrulus galandarius</i>       | Jay                      | J.       | Individual observed in the north-west of site in April.                                            | BoCC Green              |
| <i>Larus argentatus</i>           | Herring gull             | HG       | Small flocks roosting on site in March and overflying in June.                                     | SPI; BoCC Red           |
| <i>Motacilla alba</i>             | Pied wagtail             | PW       | Individuals and pairs of birds present on site in March.                                           | BoCC Green              |
| <i>Parus ater</i>                 | Coal tit                 | CT       | Individual singing in woodland on site in March.                                                   | BoCC Green              |
| <i>Perdix Perdix</i>              | Grey partridge           | P.       | Individual present in arable land on site in April.                                                | SPI; BoCC Red           |
| <i>Phasianus colchicus</i>        | Pheasant                 | PH       | Individuals and pairs present across the site in March, April and June indicating they were highly | Introduced - Not listed |



| Scientific Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Common Name      | BTO Code | Comments                                                                                                                                                              | Status*            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                  |          | likely to have bred on or adjacent to the site.                                                                                                                       |                    |
| <i>Phylloscopus trochilus</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Willow warbler   | WW       | Individual singing in scrub in the south-west of site in April.                                                                                                       | BoCC Amber         |
| <i>Picus viridis</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Green woodpecker | G.       | Individual calling in woodland / scrub in the south of site in April.                                                                                                 | BoCC Amber         |
| <i>Pyrhula pyrrhula</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Bullfinch        | BF       | Individual calling from scrub in the west of site in June.                                                                                                            | SPI; BoCC Amber    |
| <i>Sitta europaea</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Nuthatch         | NH       | Individual calling from woodland on the northern boundary in June.                                                                                                    | BoCC Green         |
| <i>Sterna vulgaris</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Starling         | SG       | Flock of 4 birds overflying west of site in June.                                                                                                                     | SPI; BoCC Red      |
| <i>Streptopelia decaocto</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Collared dove    | CD       | Individual in woodland on site in March and two birds in the east of site in April.                                                                                   | BoCC Green         |
| <i>Turdus iliacus</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Redwing**        | RE       | Flock of five birds present in the west of site in March.                                                                                                             | WCA_Sch1; BoCC Red |
| <i>Turdus pilaris</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Fieldfare**      | FF       | Flock of 40 birds in the west of site, with a further five in the east and 40 to the north of site in March, and c. 96 birds in fields to the north of site in April. | WCA_Sch1; BoCC Red |
| <i>Vanellus vanellus</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Lapwing          | L.       | Single bird observed at various locations on site in March, April and May.                                                                                            | SPI; BoCC Red      |
| <p><b>* Key</b></p> <ul style="list-style-type: none"> <li>WCA_Sch1 – Species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended)</li> <li>SPI – Species of Principal Importance as listed on Section 41 of the Natural Environment and Rural Communities Act 2006</li> <li>BoCC – Species listed as Red, Amber or Green on the Birds of Conservation Concern lists</li> </ul> <p><b>**</b> It is noted that redwing and fieldfare, which are included on Schedule 1 of the W&amp;CA, are winter visitors only and do not breed within the lowlands of England, they are rarely recorded breeding in Scotland and in different habitats to those that are present on site.</p> |                  |          |                                                                                                                                                                       |                    |

### 3.2.4 Incidental Records

A tawny owl *Strix aluco* was heard calling from a roadside tree during a dawn bat survey on the western site boundary on 10<sup>th</sup> June 2021. Juvenile birds were subsequently heard calling from the tree providing proof of breeding.

## 4.0 RELEVANT PLANNING POLICY & LEGISLATION

### 4.1 REVISED NATIONAL PLANNING POLICY FRAMEWORK

A revised NPPF was issued on 19<sup>th</sup> February 2019 (Ministry of Housing Communities and Local Government, 2019) and currently supplements government Circular 06/2005, *Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System* (Office of the Deputy Prime Minister, 2005).

Circular 06/2005 states that the presence of protected species is a material consideration in the planning process. Paragraph 170 of the NPPF also states that:

*“Planning policies and decisions should contribute to and enhance the natural environment by:*

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan)*
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland*
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate*
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures*
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and*
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.”*

Paragraph 175 then goes on to confirm that:

*“When determining planning applications, local planning authorities should apply the following principles:*

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.”*

Paragraph 180 is also relevant as;

*“Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:...*

- c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.”*

## 4.2 BIODIVERSITY 2020: A STRATEGY FOR ENGLAND’S WILDLIFE & ECOSYSTEM SERVICES

Biodiversity 2020 (DEFRA, 2011) replaces the previous UK Biodiversity Action Plan and sets national targets to be achieved. The intent of Biodiversity 2020, however, is much broader than the protection and enhancement of less common species, and is meant to embrace the wider countryside as a whole.

The priority species and habitats considered under Biodiversity 2020 are the SPI & HPI detailed under NERC Act (see Section 4.4.2 and Appendix B for further details).

## 4.3 LOCAL PLAN

The South Derbyshire Local Plan (2011-2028) is split into two parts, Part 1 adopted on June 13, 2016 and Part 2 adopted November 2, 2017. It sets the long-term vision, objectives and strategy for the spatial development of South Derbyshire.

Policy BNE3 relates to biodiversity and it states that:

*“Part A: The Local Planning Authority will support development which contributes to the protection, enhancement, management and restoration of biodiversity or geodiversity and delivers net gains in biodiversity wherever possible by:*

- i. Protecting sites of International, European, National and County importance, together with local nature reserves, from inappropriate development within and adjacent to sites;*
- ii. Delivering long term plans to restore the River Mease site of Special Scientific Interest (SSSI)/Special Area of Conservation (SAC) to a more natural condition and improve water quality within Mease and other catchments failing to meet Water Framework Directive objectives.*
- iii. Developing and maintaining a District-wide ecological network of SSSI’s and local wildlife sites together with corridors and stepping stones sites to support the integrity of the biodiversity network, prevent fragmentation, deliver ecosystem services and enable biodiversity to respond and adapt to the impacts of climate change.*
- iv. Supporting and contributing to the targets set out in the Lowland Derbyshire and/or National Forest Biodiversity Action Plan (BAP) for priority habitats and species*
- v. Protecting ancient woodland and veteran trees from loss, unless the need for, and benefits of, the development in that location clearly outweigh the loss.*

*Part B: Planning proposals that could have a direct or indirect effect on sites with potential or actual ecological or geological importance including:*

- vi. Internationally important sites*
- vii. Nationally important sites (such as SSSIs)*
- viii. Sites of County importance (such as Local Nature Reserves, Local Wildlife Sites and Local Geological Sites)*
- ix. Ancient woodlands, veteran trees and hedgerows*
- x. Priority habitats and species*



- xi. *will need to be supported by appropriate surveys or assessments sufficient to allow the Authority to fully understand the likely impacts of the scheme and the mitigation proposed. Where mitigation measures, or exceptionally, compensation cannot sufficient offset the significant harm resulting from the development and/or where the development can potentially be located on an alternative site that would cause less or no harm, planning permission will be refused."*

## 4.4 LOCAL BIODIVERSITY ACTION PLAN

The Lowland Derbyshire BAP is the relevant document for this site. In the Lowland Derbyshire BAP, eight action areas have been selected based upon regional landscape characterisation. Within the BAP, targets are set for NERC Act HPs and SPIs which are considered appropriate for each Action Area.

The site is situated within the 'Derby Action Area' which does not contain any action plans for any bird species.

## 4.5 LEGISLATION

### 4.5.1 Wildlife and Countryside Act 1981 (as amended)

All wild birds in the UK are protected under Section 1 of the W&CA which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy the nest (whilst being built or in use) or its eggs. Bird species listed in Schedule 1 of the W&CA receive further protection which makes it an offence to intentionally or recklessly disturb these species while building a nest or in, on or near a nest containing eggs or young, or to disturb dependent young of such a bird.

### 4.5.2 Natural Environment and Rural Communities Act 2006 (NERC Act)

Forty-nine bird species are listed as 'Species of Principal Importance' (SPI) for the conservation of biological diversity in England' under Section 41 of the NERC Act. These are abbreviated to SPIs in this report. Section 40 of this act places a duty (the Statutory Biodiversity Duty) on public bodies (including local planning authorities) when undertaking their duties (including the making of planning decisions) "to take such measures as they consider expedient for the purposes of conserving biodiversity".

The conservation of species listed on Section 41 of the NERC Act, including the restoration or enhancement of a population or habitat, is therefore legally required to be considered in planning decisions. *ODPM Circular 06/2005* further clarifies that they are capable of being a material consideration for planning decisions, along with Local Biodiversity Action Plan priority species.

### 4.5.3 Birds of Conservation Concern (BoCC)

The conservation status of all regularly occurring British birds has been analysed in co-operation with the leading governmental and non-governmental conservation organisations, including the RSPB, BTO and Birdlife International, and are listed within BoCC. This is regularly updated the most recent being BoCC 4 (Eaton *et al.*, 2015). Species ongoing population trends are assigned to one of three lists of Conservation Concern. These are the UK Red, Amber and Green lists.

The criteria for birds are as follows:

#### Red List

- Globally threatened.
- Historical population decline in UK during 1800–1995.
- Severe (at least 50%) decline in UK wintering population over last 25 years, or longer-term period (the entire period used for assessments since the first BoCC review, starting in 1969).

- Severe (at least 50%) contraction of UK wintering range over last 25 years, or the longer-term period.

#### Amber List

- Species with unfavourable conservation status in Europe (SPEC = Species of European Conservation Concern).
- Historical population decline during 1800–1995, but recovering; population size has more than doubled over last 25 years.
- Moderate (25–49%) decline in UK wintering population over last 25 years, or the longer-term period.
- Moderate (25–49%) contraction of UK wintering range over last 25 years, or the longer-term period.
- Moderate (25–49%) decline in UK non-breeding population over last 25 years, or the longer-term period.
- Rare non-breeders; less than 900 individuals.
- Localised; at least 50% of UK breeding or non-breeding population in 10 or fewer sites, but not applied to rare breeders or non-breeders.
- Internationally important; at least 20% of European breeding or non-breeding population in UK (NW European and East Atlantic Flyway populations used for non-breeding wildfowl and waders respectively).

#### Green List

Species on the Green list are the least critical group. Species that occur regularly in the UK but do not qualify under any of the above criteria.

Although the lists confer no legal status in themselves, they are useful in evaluating the conservation significance of bird assemblages, and for assessing the potential significance of impacts and informing appropriate levels of mitigation with respect to bird populations.

## 5.0 DISCUSSION

### 5.1 DESIGNATED SITES

#### 5.1.1 Internationally Designated Sites

There are no internationally designated sites that include birds as feature species within a 15 km radius from the site and no assemblage of breeding birds was recorded of Ramsar or SPA quality.

**The proposed development is not predicted to have any impact upon ornithological features of internationally designated sites.**

#### 5.1.2 Sites of Special Scientific Interest

The River Mease SSSI is located c. 1.78 km to the south of the site. Whilst many of the habitats present and associated with the SSSI could be used by breeding birds, birds are not mentioned as qualifying features of the SSSI.

**The development proposal is not predicted to have any impact upon ornithological features of any SSSI.**



### 5.1.3 Local Nature Reserves

There are no Local Nature Reserves (LNR) within 2 km of the site. The closest LNR is Moira Junction, located c. 5 km north-east of site which doesn't list any birds under its description. It does contain 'ponds, naturally regenerated birch woodland and heath grassland', which could support some of the protected and notable birds recorded on site during the surveys. However, similar habitat to that present at Moira Junction is abundant in the wider landscape.

**The development proposals is therefore not predicted to have any impact upon any birds that may use both the site and the LNR.**

### 5.1.4 Local Wildlife Sites

The data search did not return any detail on faunal species that could be present at the 12 LWS or pLWS sites located within 2 km of site. These sites contain suitable habitat, such as ancient woodland, open water, neutral grassland and hedgerows, that will likely support breeding and foraging notable and protected bird species.

It is however considered unlikely that the development proposals would have a significant impact on any resident birds at these sites most notably due to the distance between the site and LWSs / pLWSs. Also, the habitats found on site are in abundance in the local landscape. It is therefore likely that any birds resident at LWS / pLWS that utilise features on site, could readily find suitable alternative foraging/roosting habitats outside of the site.

**Overall, it is considered that the development proposals is unlikely to have any impact upon any birds that may use both the site and LWSs/pLWSs within 2 km.**

## 5.2 IMPACTS AND OPPORTUNITIES

---

### 5.2.1 Potential Impacts

#### Impacts on active nests

Removal of vegetation (e.g. trees, scrub, hedgerows) and clearance of any arable or grassland areas should be completed outside of the bird breeding season (typically considered to run between March and September, inclusive), i.e. clearance works should be undertaken between the months of October to February, inclusive.

If this is not possible, then a suitably experienced ecologist should check for any active bird nests no more than 48 hours prior to clearance works. If an active nest is discovered, then work in that area must cease and an appropriate buffer zone installed around the nest site where no works are undertaken, until such a time that the young have fledged and the nest is no longer in use.

The extent of the buffer zone will depend on the nature of the works to be undertaken and the species of bird nesting, the size of this buffer zone will be advised by an ecologist (as a minimum this would be 5 m).

Where habitats are to be retained (in either the short or long term), the erection of exclusion fencing is recommended to prevent accidental damage / disturbance during construction phase activities completed during the breeding season.

These measures have been secured within the Construction Environment Management Plan (CEMP) to support the application.

#### Predation

Depending on the type of fencing used around the farm, it is also possible that once the solar farm is fenced, this could deter predatory species such as red fox *Vulpes vulpes* from accessing the site and causing ground nesting species to fail.

## Habitat Loss

The majority of habitat loss on the site due to the development proposals is likely to be arable cropland which supports foraging / roosting species such as lapwing, stock dove and gull species. In the context of foraging habitat, the site will not become unavailable, but will offer alternative opportunities as cereal crops are replaced by grassland and woodland. This is not predicted to be significant as the species assemblage that the site supports is largely comprised of common farmland species, adaptable to such changes, and no rare or niche species would be lost.

Unmitigated, the development proposals will result in the loss of areas of habitat that could be used for nesting by skylark and yellow wagtail. This would displace ground nesting species into adjacent habitats during the breeding season. Whilst species such as skylark are exceedingly common on site and therefore the local area, this impact can be mitigated by the provision of purposely created and protected ground nesting sites in alternative retained areas nearby.

These would be created in the field to the south of the site, as shown in Figure 5. These would be created in as close accordance as possible to guidance provided by the RSPB (undated). Using this guidance, plots would be created by leaving 16 m<sup>2</sup> areas of cereal crop unsown (achieved by briefly switching off seed drills). These would be created at a density of two per hectare in one field totalling 6.8 ha, and therefore 10 plots can be installed once the buffers from the boundaries and each other are taken into consideration. These would be created a minimum of 24 m from field edges and will be spaced as far from each other and field boundaries as possible. The guidance makes reference to fields bordered by trees and woodland not being suitable - this cannot be achieved in the fields identified for mitigation. However, based on the survey data showing that woodland and trees do not limit skylark behaviour, it is considered that the locations proposed are appropriate and have the potential to be used.

It is considered that although potentially nesting habitat will be lost, the provision of secured optimal breeding locations off-site for the lifespan of the development, will mean that the local population of ground nesting farmland species such as skylark will not be significantly negatively affected.

## Habitat Creation and Enhancement

It is understood that underneath the solar arrays the ground will be seeded with a wildflower-rich grassland mix that will be subject to wildlife-friendly management techniques. Whilst the installation of rows of solar panels is likely to deter some species from using the site, it is possible that some species may still use a meadow habitat beneath the arrays in which to nest.

A study from Natural England (2017) suggests there to be little scientific evidence currently on the impact of solar farms on birds. However, there are some studies to suggest that they could actually increase the number of birds present on a site compared to the open or cropped fields that may have been present before array installation. This was largely due to the grassland being left to grow long to produce seed and provide shelter for nesting.

It is understood that the external boundaries of the site will be enhanced through increased woodland planting. This planting will act to screen the development from adjacent land, thereby reducing visual impact on birds off-site, and will also serve to provide additional habitat for notable woodland nesting species encountered on site, such as song thrush. The site is bisected by numerous hedgerows that provide food, shelter and nesting locations for a number of bird species. It is understood that the hedgerows on site are largely to be retained with some being enhanced. Retention of hedgerows across the site will help to preserve the hedgerow nesting bird assemblage currently present on site, post-development.

Notable hedgerow species, such as yellowhammer, linnet and dunnock, could likely continue to be supported on the site through the retention of hedgerows. Enhancement of some hedgerows will further increase the provision of this habitat for nesting and foraging birds, so that the hedgerow nesting population could increase as a result. The retention of hedgerows across the site also preserves linear commuting routes that some bird species may use to commute through the site in relative safety.

A wide variety of common breeding species recorded on site were found to mostly be using the woodland, scrub and hedgerow habitats, including species such as buzzard, goldfinch, blue tit, chiffchaff, blackcap, whitethroat and wren. The retention and enhancement of these habitats across the site would be expected to help preserve the existing assemblage and to also encourage their numbers to increase through the increased habitat provision. Similarly, common bird species would likely use any grassland habitat underneath solar arrays in which to forage for food, seek shelter and potentially nest.

The creation of new areas of grassland, woodland and hedgerow improvement are all considered to be enhancements as they will act on different species, compared to the impacts of the loss of arable crop. These impacts are therefore considered to result in a significant positive impact as habitat heterogeneity in the wider landscape will be improved, with associated effects on the bird assemblage they are capable of supporting.

#### **Operational-phase Disturbance**

Artificial lighting can have a negative impact upon bird species. However, no operational phase lighting will be installed and therefore no impact is predicted.



## 6.0 SUMMARY

The development proposals will not have any impact on any bird assemblage associated with any statutory or non-statutory designated site for nature conservation.

Of the 55 species recorded, three were W&CA Schedule 1 list species, nine were BoCC Red list species and 11 were BoCC Amber list species. Furthermore, 12 species listed as SPI under the NERC Act were recorded during the surveys.

The protected / notable birds with the largest number of potential breeding territories on site included dunnock, skylark and yellowhammer. BoCC Green species with the largest number of potential breeding territories included wren, blue tit, blackbird, robin and chaffinch. Other notable but non-breeding birds on site included meadow pipit, hobby, greylag goose, reed bunting, herring gull, grey partridge, bullfinch, redwing, fieldfare and lapwing.

All bird's eggs and active nests are protected from damage and destruction. As such, all vegetation and grassland clearance should occur outside of the bird breeding season, which runs between March and September, inclusive. If this is not possible, clearance of vegetation will require supervision by a suitably experienced ecologist.

If the construction-phase of the development proposals coincides with the breeding bird season, any retained habitats should be protected from accidental damage through the use of exclusion fencing.

The loss of arable land is not considered likely to have a significant impact on foraging birds, as the assemblage supported is comprised of common and typical species, adaptable to such changes. The loss of ground nesting habitat for farmland species e.g. skylark, would be mitigated by the provision of alternative nesting locations off-site in the form of skylark plots. These skylark plots are considered likely to result in the development proposals having no significant impact on ground nesting species. The enhancement and creation of hedgerows, woodland, scrub and grassland will be a significant positive impact on other breeding birds on site.



## 7.0 REFERENCES

- Bibby, C.J., Burgess, N.D., Hill, D.A. & Mustoe, S.H., (2007), *Bird census techniques* (2<sup>nd</sup> edition), Academic press: London.
- CIEEM, (2019), *Advice Note, On the Lifespan Of Ecological Reports & Surveys*, [online] Available at <https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf>, Accessed June 2021.
- DEFRA, (2011), *Biodiversity 2020: A strategy for England's wildlife and ecosystem services*, [online] Available at [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69446/pb13583-biodiversity-strategy-2020-111111.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69446/pb13583-biodiversity-strategy-2020-111111.pdf), Accessed July 2021.
- Eaton, M., Aebischer, N., Brown, A., Hearn, R. Lock, L. Musgrove, A., Noble, D. Stroud, D. and Gregory, R. (2015). Birds of conservation concern 4: the population status of birds in the UK, Channel Islands and Isle of Man, *British birds*, 108:708-746.
- Frost, R. and Shaw, S. (editors), (2013), *The birds of Derbyshire*, Liverpool University Press: Liverpool.
- Gilbert, G., Gibbons, D.W. and Evans, J., (2002), *Bird monitoring methods a manual of techniques for key UK species*, RSPB: Sandy, Bedfordshire.
- Ministry of Housing Communities and Local Government, (2019), *National Planning Policy Framework*, [online] Available at [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/779764/NPPF\\_Feb\\_2019\\_web.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779764/NPPF_Feb_2019_web.pdf), Accessed July 2021.
- Natural England, (2017), *Evidence review of the impact of solar farms on birds, bats and general ecology*, [online] Available at <http://publications.naturalengland.org.uk/publication/6384664523046912>, Accessed July 2021.
- ODPM, (2005), *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System*, [online] Available at [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/7692/147570.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7692/147570.pdf), Accessed July 2021.
- RSPB, (undated), *Farming for Wildlife: Skylark Plots*, [online] Available at [http://ww2.rspb.org.uk/images/skylarkplot\\_tcm9-132769.pdf](http://ww2.rspb.org.uk/images/skylarkplot_tcm9-132769.pdf), Accessed August 2021.
- Tetra Tech, (2021), *Breeding Birds: Lullington Solar Farm (interim report)*, Unpublished report.
- WYG, (2019), *Ecological Appraisal: Lullington Solar Farm*, Unpublished report.

## FIGURES

**Figure 1 – Site Survey Area**

**Figure 2 – Transect Routes**

**Figure 3 – Schedule 1 and BoCC Red List Birds**

**Figure 4 – BoCC Amber List Species**

**Figure 5 – Indicative skylark plot locations**





# Site Survey Area

Lullington Solar Farm

Lullington Solar Park Limited



## Legend

Site boundary

## Notes:

Drawn by: CL  
Checked by: DG  
Office: Southampton

Figure No. 1  
Revision No. A

0 90 180 270 Meters  
Scale 1 6,200 @A3

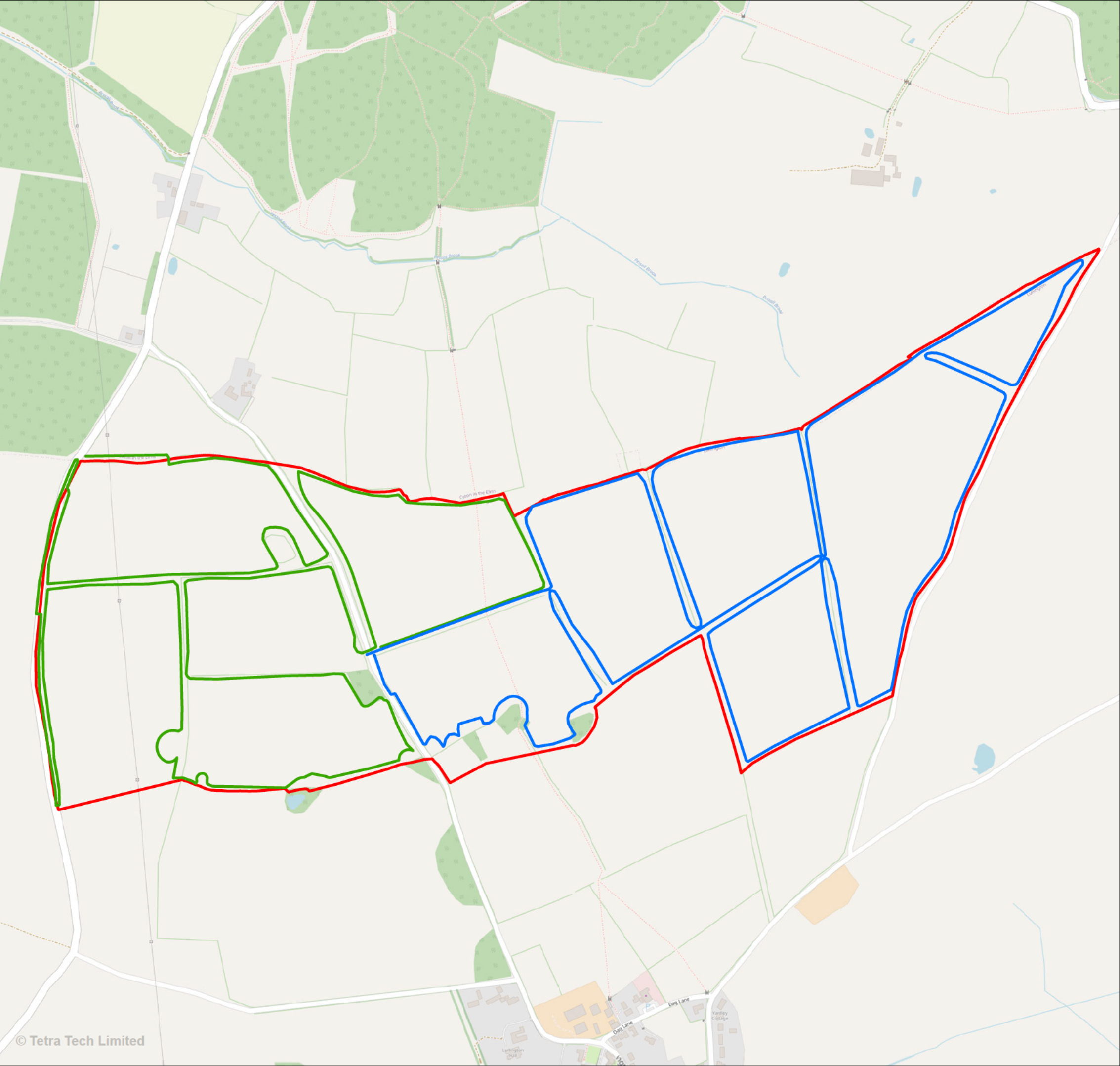
21 April 2021  
NGR: 424868E 313892N

© Crown Copyright All rights reserved. Licence number: 100019980



The Pavilion, 1st Floor  
Botleigh Grange  
Office Campus  
Hedge End  
Southampton  
Hampshire, SO30 2AF





© Tetra Tech Limited

# **Transect Routes**

Lullington Solar Farm

Lullington Solar Park Limited



## **Legend**

Site boundary

## **Transect route**

— Route 1

— Route 2

## **Notes:**

Drawn by: CL  
Checked by: LV  
Office: Southampton

Figure No. 2  
Revision No.

0 80 160 240 Meters  
Scale 1 6,000 @A3

07 July 2021  
NGR: 424883E 313905N

© Crown Copyright All rights reserved. Licence number: 100019980



**TETRA TECH**

The Pavilion, 1st Floor  
Botleigh Grange  
Office Campus  
Hedge End  
Southampton  
Hampshire, SO30 2AF





**Lullington Solar Park Limited**

 Site boundary

FF - Fieldfare

RE - Redwing

HY - Hobby

## HG - Herring Gull

M - Mistle Thrush

L. - Lapwing

LI - Linnet

P. - Grey Partridge

S. - Skylark

SG - Starling

ST - Song Thrush

Y. - Yellowhammer

YW - Yellow Wagtail

☐ Singing

→ Calling

→ Bird flight line

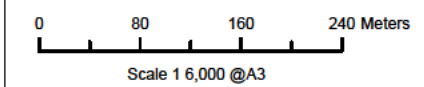
Drawn by: CL

Checked by: LV

Office: Southampton

Figure No. 3

Revision No. A



08 July 2021

NGR: 424870E 313850N

© Crown Copyright All rights reserved. Licence number: 100019980



**TETRA TECH**

The Pavilion, 1st Floor  
Botleigh Grange  
Office Campus  
Hedge End  
Southampton  
Hampshire, SO30 2AF





# BoCC Amber List Species

Lullington Solar Farm

Lullington Solar Park Limited



## Legend

Site boundary

### BoCC Amber listed species

- BF - Bullfinch
- BH - Black-headed Gull
- D. - Dunnock
- G. - Green Woodpecker
- GJ - Greylag Goose
- K. - Kestrel
- MA - Mallard
- MP - Meadow Pipit
- RB - Reed Bunting
- SD - Stock Dove
- SI - Swift
- WW - Willow Warbler

- Singing
- Calling
- Bird flight line

## Notes:

Drawn by: CL  
Checked by: LV  
Office: Southampton

Figure No. 4  
Revision No. A

0 90 180 270 Meters  
Scale 1:6,200 @A3

08 July 2021  
NGR: 424846E 313795N

© Crown Copyright All rights reserved. Licence number: 100019980





# Indicative Skylark Plot Locations

Lullington Solar Park Limited



Island Green Power Ltd

## Legend

-  Site boundary
-  Skylark mitigation areas
-  4 m x 4 m skylark plots

## Notes:

Drawn by: SB  
Checked by: ES  
Office: Southampton

Figure No. 5  
Revision No. A

0 40 80 120 Meters  
Scale 1:3,000 @A3

16 September 2021  
NGR: 425031E 313535N

© Crown Copyright All rights reserved. Licence number: 100019980





**TETRA TECH**

The Pavilion, 1st Floor  
Botleigh Grange  
Office Campus  
Hedge End  
Southampton  
Hampshire, SO30 2AF



## APPENDIX A – REPORT CONDITIONS

This Report has been prepared using reasonable skill and care for the sole benefit of Lullington Solar Park Limited ("the Client") for the proposed uses stated in the report by [Tetra Tech Environment Planning Transport Limited] ("Tetra Tech"). Tetra Tech exclude all liability for any other uses and to any other party. The report must not be relied on or reproduced in whole or in part by any other party without the copyright holder's permission.

No liability is accepted or warranty given for; unconfirmed data, third party documents and information supplied to Tetra Tech or for the performance, reliability, standing etc of any products, services, organisations or companies referred to in this report. Tetra Tech does not purport to provide specialist legal, tax or accounting advice.

The report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections'. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times. No investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather-related conditions. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions. The "shelf life" of the Report will be determined by a number of factors including; its original purpose, the Client's instructions, passage of time, advances in technology and techniques, changes in legislation etc. and therefore may require future re-assessment.

The whole of the report must be read as other sections of the report may contain information which puts into context the findings in any executive summary.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. Tetra Tech accept no liability for issues with performance arising from such factors.

## APPENDIX B – KEY LEGISLATION

### Bern Convention

The *Convention on the Conservation of European Wildlife and Natural Habitats* (the *Bern Convention*) was adopted in Bern, Switzerland in 1979, and was ratified in 1982. Its aims are to protect wild plants and animals and their habitats listed in Appendices 1 and 2 of the Convention, and regulate the exploitation of species listed in Appendix 3. The regulation imposes legal obligations on participating countries to protect over 500 plant species and more than 1000 animals.

To meet its obligations imposed by the Convention, the European Community adopted the *EC Birds Directive* (1979) and the *EC Habitats Directive* (1992 – see below). Since the Lisbon Treaty, in force since 1<sup>st</sup> December 2009, European legislation has been adopted by the European Union.

### Bonn Convention

The Convention on the Conservation of Migratory Species of Wild Animals or 'Bonn Convention' was adopted in Bonn, Germany in 1979 and came into force in 1985. Participating states agree to work together to preserve migratory species and their habitats by providing strict protection to species listed in Appendix I of the Convention. It also establishes agreements for the conservation and management of migratory species listed in Appendix II.

In the UK, the requirements of the convention are implemented via the Wildlife & Countryside Act 1981 (as amended), Wildlife (Northern Ireland) Order 1985 (as amended), Nature Conservation and Amenity Lands (Northern Ireland) Order 1985 and the Countryside and Rights of Way Act 2000 (CROW).

### Habitats Directive

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, or the 'Habitats Directive', is a European Union directive adopted in 1992 in response to the Bern Convention. Its aims are to protect approximately 220 habitats and 1,000 species listed in its several Annexes.

In the UK, the Habitats Directive is transposed into national law via the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales, and via the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland.

### Birds Directive

The EC Directive on the Conservation of Wild Birds (79/409/EEC) or 'Birds Directive' was introduced to achieve favourable conservation status of all wild bird species across their distribution range. In this context, the most important provision is the identification and classification of Special Protection Areas (SPAs) for rare or vulnerable species listed in Annex 1 of the Directive, as well as for all regularly occurring migratory species, paying particular attention to the protection of wetlands of international importance.

### Conservation of Habitats and Species Regulations 2017 (as amended)

Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species (listed in Annexes I or II of the Habitats Directive respectively) to the European Commission. These sites, if ratified by Ministers, are then designated as Special Protection Areas (SPAs) within six years. Public bodies must also help preserve, maintain and re-establish habitats for wild birds.

The 2018 amendments mainly related to the impact of the *People Over Wind* decision and some implications arising for neighbourhood plan development and a range of other planning tools including Local Development Orders and Permission in Principle – see here for full details:

<https://www.legislation.gov.uk/ukxi/2018/1307/note/made>

The Regulations make it an offence to deliberately capture, kill, disturb or trade in the animals listed in Schedule 2, or pick, uproot, destroy, or trade in the plants listed in Schedule 5.

### Wildlife & Countryside Act 1981 (as amended)

This is the principal mechanism for the legislative protection of wildlife in the UK. This legislation is the chief means by which the 'Bern Convention' and the Birds Directive are implemented in the UK. Since it was first introduced, the Act has been amended several times.

The Act makes it an offence to (with exception to species listed in Schedule 2) intentionally:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use; or
- take or destroy an egg of any wild bird.

Or to intentionally do the following to a wild bird listed in Schedule 1:

- disturbs any wild bird while it is building a nest or is in, on or near a nest containing eggs or young; or
- disturbs dependent young of such a bird.

In addition, the Act makes it an offence (subject to exceptions) to:

- intentionally or recklessly kill, injure or take any wild animal listed on Schedule 5;
- interfere with places used for shelter or protection, or intentionally disturbing animals occupying such places; and
- The Act also prohibits certain methods of killing, injuring, or taking wild animals.

Finally, the Act also makes it an offence (subject to exceptions) to: intentionally pick, uproot or destroy any wild plant listed in Schedule 8, or any seed or spore attached to any such wild plant; unless an authorised person, intentionally uproot any wild plant not included in Schedule 8; or sell, offer or expose for sale, or possess (for the purposes of trade), any live or dead wild plant included in Schedule 8, or any part of, or anything derived from, such a plant.

Following all amendments to the Act, Schedule 5 'Animals which are Protected' contains a total of 154 species of animal, including several mammals, reptiles, amphibians, fish and invertebrates. Schedule 8 'Plants which are Protected' of the Act, contains 185 species, including higher plants, bryophytes and fungi and lichens. A comprehensive and up-to-date list of these species can be obtained from the JNCC website.

Part 14 of the Act makes unlawful to plant or otherwise cause to grow in the wild any plant which is listed in Part II of Schedule 9.

It is recommended that plant material of these species is disposed of as bio-hazardous waste, and these plants should not be used in planting schemes.

#### **Schedule 1 - Birds which are protected by special penalties**

|                          |                                 |                       |                                |
|--------------------------|---------------------------------|-----------------------|--------------------------------|
| Avocet                   | <i>Recurvirostra avosetta</i>   | Osprey                | <i>Pandion haliaetus</i>       |
| Bee-eater                | <i>Merops apiaster</i>          | Owl, Barn             | <i>Tyto alba</i>               |
| Bittern                  | <i>Botaurus stellaris</i>       | Owl, Snowy            | <i>Nyctea scandiaca</i>        |
| Bittern, Little          | <i>Ixobrychus minutus</i>       | Peregrine             | <i>Falco peregrinus</i>        |
| Bluethroat               | <i>Luscinia svecica</i>         | Petrel, Leach's       | <i>Oceanodroma leucorhoa</i>   |
| Brambling                | <i>Fringilla montifringilla</i> | Phalarope, Red-necked | <i>Phalaropus lobatus</i>      |
| Bunting, Cirl            | <i>Emberiza cirlus</i>          | Plover, Kentish       | <i>Charadrius alexandrinus</i> |
| Bunting, Lapland         | <i>Calcarius lapponicus</i>     | Plover, Little Ringed | <i>Charadrius dubius</i>       |
| Bunting, Snow            | <i>Plectrophenax nivalis</i>    | Quail, Common         | <i>Coturnix coturnix</i>       |
| Buzzard, Honey           | <i>Pernis apivorus</i>          | Redstart, Black       | <i>Phoenicurus ochruros</i>    |
| <u>Capercaillie</u>      | <i>Tetrao urogallus</i>         | Redwing               | <i>Turdus iliacus</i>          |
| Chough                   | <i>Pyrrhocorax pyrrhocorax</i>  | Rosefinch, Scarlet    | <i>Carpodacus erythrinus</i>   |
| Corncrake                | <i>Crex crex</i>                | Ruff                  | <i>Philomachus pugnax</i>      |
| Crake, Spotted           | <i>Porzana porzana</i>          | Sandpiper, Green      | <i>Tringa ochropus</i>         |
| Crossbills (all species) | <i>Loxia</i>                    | Sandpiper, Purple     | <i>Calidris maritima</i>       |
| Curlew, Stone            | <i>Burhinus oedipnemos</i>      | Sandpiper, Wood       | <i>Tringa glareola</i>         |
| Divers (all species)     | <i>Gavia</i>                    | Scaup                 | <i>Aythya marila</i>           |



|                         |                              |                             |                                                                   |
|-------------------------|------------------------------|-----------------------------|-------------------------------------------------------------------|
| Dotterel                | <i>Charadrius morinellus</i> | Scoter, Common              | <i>Melanitta nigra</i>                                            |
| Duck, Long-tailed       | <i>Clangula hyemalis</i>     | Scoter, Velvet              | <i>Melanitta fusca</i>                                            |
| Eagle, Golden           | <i>Aquila chrysaetos</i>     | Serin                       | <i>Serinus serinus</i>                                            |
| Eagle, White-tailed     | <i>Haliaeetus albicilla</i>  | Shorelark                   | <i>Eremophila alpestris</i>                                       |
| Falcon, Gyr             | <i>Falco rusticolus</i>      | Shrike, Red-backed          | <i>Lanius collurio</i>                                            |
| Fieldfare               | <i>Turdus pilaris</i>        | Spoonbill                   | <i>Platalea leucorodia</i>                                        |
| Firecrest               | <i>Regulus ignicapillus</i>  | Stilt, Black-winged         | <i>Himantopus himantopus</i>                                      |
| Garganey                | <i>Anas querquedula</i>      | Stint, Temminck's           | <i>Calidris temminckii</i>                                        |
| Godwit, Black-tailed    | <i>Limosa limosa</i>         | Swan, Bewick's              | <i>Cygnus bewickii</i>                                            |
| Goshawk                 | <i>Accipiter gentilis</i>    | Swan, Whooper               | <i>Cygnus cygnus</i>                                              |
| Grebe, Black-necked     | <i>Podiceps nigricollis</i>  | Tern, Black                 | <i>Chlidonias niger</i>                                           |
| Grebe, Slavonian        | <i>Podiceps auritus</i>      | Tern, Little                | <i>Sterna albifrons</i>                                           |
| Greenshank              | <i>Tringa nebularia</i>      | Tern, Roseate               | <i>Sterna dougallii</i>                                           |
| Gull, Little            | <i>Larus minutus</i>         | Tit, Bearded                | <i>Panurus biarmicus</i>                                          |
| Gull, Mediterranean     | <i>Larus melanocephalus</i>  | Tit, Crested                | <i>Parus cristatus</i>                                            |
| Harriers (all species)  | <i>Circus</i>                | Tree-creeper, Short-toed    | <i>Certhia brachydactyla</i>                                      |
| Heron, Purple           | <i>Ardea purpurea</i>        | Warbler, Cetti's            | <i>Cettia cetti</i>                                               |
| Hobby                   | <i>Falco subbuteo</i>        | Warbler, Dartford           | <i>Sylvia undata</i>                                              |
| Hoopoe                  | <i>Upupa epops</i>           | Warbler, Marsh              | <i>Acrocephalus palustris</i>                                     |
| Kingfisher              | <i>Alcedo atthis</i>         | Warbler, Savi's             | <i>Locustella luscinioides</i>                                    |
| Kite, Red               | <i>Milvus milvus</i>         | Whimbrel                    | <i>Numenius phaeopus</i>                                          |
| Merlin                  | <i>Falco columbarius</i>     | Woodlark                    | <i>Lullula arborea</i>                                            |
| Oriole, Golden          | <i>Oriolus oriolus</i>       | Wryneck                     | <i>Jynx torquilla</i>                                             |
| Cotton-grass – Slender  | <i>Eriophorum gracile</i>    | Pennycress – Perfoliate     | <i>Microthlaspi perfoliatum</i><br>( <i>Thlaspi perfoliatum</i> ) |
| Cow-wheat – Field       | <i>Melampyrum arvense</i>    | Pennyroyal                  | <i>Mentha pulegium</i>                                            |
| Crocus – Sand           | <i>Romulus columnae</i>      | Pigmyweed                   | <i>Crassula aquatica</i>                                          |
| Cudweed – Broad-leaved  | <i>Filago pyramidata</i>     | Pine - Ground               | <i>Ajuga chamaepitys</i>                                          |
| Cudweed – Jersey        | <i>Gnaphalium luteoalbum</i> | Pink – Cheddar              | <i>Dianthus gratianopolitanus</i>                                 |
| Cudweed – Red-tipped    | <i>Filago lutescens</i>      | Pink – Childing             | <i>Petrorhagia nanteuillii</i>                                    |
| Cut-grass               | <i>Leersia oryzoides</i>     | Ragwort – Fen               | <i>Jacobaea paludosa</i><br>( <i>Senecio paludosa</i> )           |
| Deptford Pink           | <i>Dianthus armeria</i>      | Ramping-fumitory – Martin's | <i>Fumaria reuteri</i> (F. martinii)                              |
| Diapensia               | <i>Diapensia lapponica</i>   | Rampion – Spiked            | <i>Phyteuma spicata</i>                                           |
| Eryngo – Field          | <i>Eryngium campestre</i>    | Restharrow – Small          | <i>Ononis reclinata</i>                                           |
| Fern – Dickie's-bladder | <i>Cystopteris dickieana</i> | Rock-cress – Alpine         | <i>Arabis alpina</i>                                              |
| Fleabane – Alpine       | <i>Erigeron borealis</i>     | Rock-cress – Bristol        | <i>Arabis scabra</i>                                              |

|                                                           |                                                                                         |                                |                                                    |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|
| Fleabane – Small                                          | <i>Pulicaria vulgaris</i>                                                               | Sandwort – Norwegian           | <i>Arenaria norvegica</i> <sup>1</sup>             |
| Galingale – Brown                                         | <i>Cyperus fuscus</i>                                                                   | Sandwort – Teesdale            | <i>Minuartia stricta</i>                           |
| Gentian – Alpine                                          | <i>Gentiana nivalis</i>                                                                 | Saxifrage – Drooping           | <i>Saxifraga cernua</i>                            |
| Gentian - Dune                                            | <i>Gentianella amarella</i> subsp. <i>occidentalis</i> ( <i>Gentianella uliginosa</i> ) | Saxifrage – Tufted             | <i>Saxifraga cespitosa</i>                         |
| Gentian – Fringed                                         | <i>Gentianopsis ciliata</i> ( <i>Gentianella ciliata</i> )                              | Solomon's-seal – Whorled       | <i>Polygonatum verticillatum</i>                   |
| Gentian - Spring                                          | <i>Gentiana verna</i>                                                                   | Sow-thistle – Alpine           | <i>Cicerbita alpina</i>                            |
| Germander – Cut-leaved                                    | <i>Teucrium botrys</i>                                                                  | Spearwort – Adder's-tongue     | <i>Ranunculus ophioglossifolius</i>                |
| Germander – Water                                         | <i>Teucrium scordium</i>                                                                | Speedwell – Fingered           | <i>Veronica triphyllos</i>                         |
| Gladiolus – Wild                                          | <i>Gladiolus illyricus</i>                                                              | Speedwell – Spiked             | <i>Veronica spicata</i> <sup>2</sup>               |
| Goosefoot – Stinking                                      | <i>Chenopodium vulvaria</i>                                                             | Spike-rush – Dwarf             | <i>Eleocharis parvula</i>                          |
| Grass-poly                                                | <i>Lythrum hyssopifolia</i>                                                             | South-stack Fleawort           | <i>Tephrosia integrifolia</i> ssp. <i>maritima</i> |
| Hare's-ear – Sickie-leaved                                | <i>Bupleurum falcatum</i>                                                               | Star-of-Bethlehem – Early      | <i>Gagea bohemica</i>                              |
| Hare's-ear – Small                                        | <i>Bupleurum baldense</i>                                                               | Starfruit                      | <i>Damasonium alisma</i>                           |
| Hawk's-beard – Stinking                                   | <i>Crepis foetida</i>                                                                   | Strapwort                      | <i>Corrigiola littoralis</i>                       |
| Hawkweed – Northroe                                       | <i>Hieracium northroense</i>                                                            | Violet – Fen                   | <i>Viola persicifolia</i>                          |
| Hawkweed – Shetland                                       | <i>Hieracium zetlandicum</i>                                                            | Viper's-grass                  | <i>Scorzonera humilis</i>                          |
| Hawkweed – Weak-leaved                                    | <i>Hieracium attenuatifolium</i>                                                        | Water-plantain – Ribbon-leaved | <i>Alisma gramineum</i>                            |
| Heath – Blue                                              | <i>Phyllodoce caerulea</i>                                                              | Wood-sedge – Starved           | <i>Carex depauperata</i>                           |
| Helleborine – Red                                         | <i>Cephalanthera rubra</i>                                                              | Woodsia – Alpine               | <i>Woodsia alpina</i>                              |
| Horsetail – Branched                                      | <i>Equisetum ramosissimum</i>                                                           | Woodsia – Oblong               | <i>Woodsia ilvensis</i>                            |
| Hound's-tongue – Green                                    | <i>Cynoglossum germanicum</i>                                                           | Wormwood – Field               | <i>Artemisia campestris</i>                        |
| Knawel – Perennial                                        | <i>Scleranthus perennis</i> <sup>3</sup>                                                | Woundwort – Downy              | <i>Stachys germanica</i>                           |
| Knot-grass – Sea                                          | <i>Polygonum maritimum</i>                                                              | Woundwort – Limestone          | <i>Stachys alpina</i>                              |
| Leek – Round-headed                                       | <i>Allium sphaerocephalon</i>                                                           | Yellow-rattle – Greater        | <i>Rhinanthus angustifolius</i>                    |
| Lettuce – Least                                           | <i>Lactuca saligna</i>                                                                  |                                |                                                    |
| <b>Natural Environment and Rural Communities Act 2006</b> |                                                                                         |                                |                                                    |

<sup>1</sup> All subspecies occurring in the UK

<sup>2</sup> Both subspecies: *spicata* & *hybrida*

<sup>3</sup> Includes both subspecies: *perennis* & *prostratus*

Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of Habitats and Species which are of Principal Importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 Habitats of Principal Importance and 1,150 Species of Principal Importance.

### Birds of Conservation Concern

This is a review of the status of all birds occurring regularly in the United Kingdom. It is regularly updated and is prepared by leading bird conservation organisations, including the British Trust for Ornithology (BTO), Joint Nature Conservation Committee (JNCC) and The Royal Society for the Protection of Birds (RSPB).

The latest report was produced in 2015 (Eaton *et al*, 2015) and identified 67 red list species, 96 amber species, and 81 green species. The criteria are complex, but generally:

- **Red list** species are those that have shown a decline of the breeding population, non-breeding population or breeding range of more than 50% in the last 25 years.
- **Amber list** species are those that have shown a decline of the breeding population, non-breeding population or breeding range of between 25% and 50% in the last 25 years. Species that have a UK breeding population of less than 300 or a non-breeding population of less than 900 individuals are also included, together with those whose 50% of the population is localised in 10 sites or fewer and those whose 20% of the European population is found in the UK.
- **Green list** species are all regularly occurring species that do not qualify under any of the red or amber criteria are green listed

### Local Biodiversity Action Plan (LBAP)

Local Biodiversity Action Plans (LBAP) identify habitat and species conservation priorities at a local level (typically at the County level), and are usually drawn up by a consortium of local Government organisations and conservation charities.

Some LBAP's may also include Habitat Action Plans (HAP) and/or Species Action Plans (SAP), which are used to guide and inform the local decision making process.