

# CALDECOTE FARM

NEWPORT PAGNELL · MILTON KEYNES

## APPENDIX 6

*ENVIRONMENTAL STATEMENT*

---

## ECOLOGY AND NATURE CONSERVATION

---

### APPENDIX 6.4

**BBS REPORT**



Newlands Developments

**Land at Caldecote Farm, Newport Pagnell**

**Appendix 6.4 Breeding Bird Report**

July 2021

**FPCR Environment and Design Ltd**

Registered Office: Lockington Hall, Lockington, Derby DE74 2RH

Company No. 07128076. [T] 01509 672772 [F] 01509 674565 [E] [mail@fpcr.co.uk](mailto:mail@fpcr.co.uk) [W] [www.fpcr.co.uk](http://www.fpcr.co.uk)

This report is the property of FPCR Environment and Design Ltd and is issued on the condition it is not reproduced, retained or disclosed to any unauthorised person, either wholly or in part without the written consent of FPCR Environment and Design Ltd. Ordnance Survey material is used with permission of The Controller of HMSO, Crown copyright 100018896.

Rev	Issue Status	Prepared / Date	Approved/Date
	Draft	OGJ / 13.06.18	TJM / 18.06.18
	Final	JAW / 03.03.21	

**CONTENTS**

1.0	INTRODUCTION .....	3
2.0	LEGISLATION & STATUS.....	4
3.0	METHODOLOGY.....	5
4.0	RESULTS AND EVALUATION.....	8
5.0	DISCUSSION AND RECOMMENDATIONS.....	12

**TABLES**

Table 1: Breeding Bird Survey Dates and Conditions

Table 2: Evaluation Criteria

Table 3: Non-statutory Sites located within 1km of Site Boundary

Table 4: Notable Species Recorded at Newport Pagnell during Breeding Bird Surveys 2016, and their Recent Status within Buckinghamshire

Table 5: Evaluation of Species Considered Potentially Sensitive to Habitat Loss / Change

**FIGURES**

Figure 1: Breeding Bird Survey Plan

**APPENDIX**

Appendix A: Desktop Study Results

Appendix B: Breeding Bird Survey Results

## 1.0 INTRODUCTION

- 1.1 This report has been produced by FPCR Environment & Design Ltd. on behalf of Newlands Developments and provides details of breeding bird surveys undertaken at a site known as 'Land at Caldecote Farm, Newport Pagnell'.
- 1.2 This report should be read in conjunction with the Environmental Statement<sup>1</sup> and associated protected species reports produced for the site.

### Site Location and Context

- 1.3 The site is located between Milton Keynes and Newport Pagnell in Buckinghamshire, central grid reference SP 8757 4228 (see Figure 1). The M1 motorway corridor forms the boundary to the west of the site, whilst Monks Way (A422) bounds the north / north-west boundary and Willen Road is located immediately to the east. Surrounding land use in the wider area consists of existing residential areas of Newport Pagnell to the north, and Tongwell Industrial Estate and adjacent residential areas, comprising Willen and Blakelands to the west of the M1. To the east is an active sand and gravel extraction site and further afield consists of extensive open farmland and habitats associated with the River Ouzel.
- 1.4 The site comprises a field compartment which has been partially restored to agriculture following cessation of historic extraction activities. The site currently consists of species-poor grassland interspersed with tall ruderal species and scattered scrub. Remnant sand and gravel deposits, shallow ephemeral pools and bunds in varying stages of succession, between bare ground and poor semi-improved grassland, are located at the eastern periphery of the grassland. The site is bound by native hedgerows to the east, west and part of the north boundary, which widen to highway planting where associated with the A422 at the north-west and Willen Road to the south. The eastern-most extent of the site is formed by a short section of highway (Willen Road) and a section of adjoining arable field compartment.
- 1.5 The site was originally subject to an extended Phase 1 Habitat survey in April 2016, which was subsequently updated on the 29<sup>th</sup> May 2018 and 21<sup>st</sup> January 2021, to confirm that there had been no significant alterations in the nature or extent of habitats or of their suitability for faunal species.
- 1.5.1. Comments received from the Countryside Officer at Milton Keynes Council (Offer's Committee Report, dated 10<sup>th</sup> June 2020, planning reference 19/02402/FUL)<sup>2</sup>, in regard to breeding bird surveys undertaken on-site as part of the previous planning application, are detailed below.
- "Breeding Bird Report,*
- The breeding bird survey was carried out between May and June 2016, and is such is out-of-date. However, breeding birds can be protected by the implementation of a suitably worded planning condition and no further surveys are required"*.
- 1.6 Taking note of these comments, no further surveys in regard to breeding birds will be undertaken to inform this application and therefore the assessment undertaken within this report is based upon the results of the breeding bird surveys undertaken in 2016, which are considered to

<sup>1</sup> FPCR, 2021 Land at Caldecote Farm, Newport Pagnell Environmental Statement

<sup>2</sup> Milton Keynes Council 10.06.2020 – CF – Officers Committee Report.pdf Available at: <https://publicaccess2.milton-keynes.gov.uk/online-applications/applicationDetails.do?keyVal=PY2TIKKW0K600&activeTab=summary>

provide an accurate account of breeding bird activity within the site, given its location and the limited habitats present.

### Development Proposals

- 1.7 The development proposals entail the erection of two storage and distribution units (Class B8) with associated access, car parking, servicing, landscaping, earthworks and drainage.

### Survey Objectives

- 1.8 The objectives of the survey were to:
- Identify the presence and distribution of breeding birds on the site,
  - Evaluate the importance of local bird populations and their habitat requirements,
  - Evaluate the conservation importance of the site, and
  - Identify areas of ornithological interest and make recommendations to minimise the potential impact of the scheme.

## 2.0 LEGISLATION & STATUS

### Legislation

- 2.1 The Wildlife and Countryside Act 1981 (as amended)<sup>4</sup> is the principal legislation affording protection to UK wild birds. Under this legislation all birds, their nests and eggs are protected by law and it is an offence, with certain exceptions to recklessly or intentionally:
- Kill, injure or take any wild bird,
  - Take, damage or destroy the nest of any wild bird while in use or being built, and
  - Take or destroy the egg of any wild bird.
- 2.2 Species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) are specially protected at all times.
- 2.3 A number of birds feature on the Natural Environment and Rural Communities (NERC) Act<sup>5</sup>, Section 41 (S.41) as 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 NERC Act, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.
- 2.4 The site falls within the Buckinghamshire & Milton Keynes Local Biodiversity Action Plan (LBAP)<sup>6</sup>. No specific species action plans are included within this document, however 85 bird species are identified within Appendix A of the LBAP, as 'Priority, protected and other 'notable' species in Buckinghamshire and Milton Keynes'. This list will therefore be considered during this report and information regarding these key species has been included where relevant.

<sup>4</sup> The Wildlife and Countryside Act 1981 (as amended). [Online]. London:HMSO Available at <http://www.legislation.gov.uk/ukpga/1981/69> [Accessed 02/12/2014]

<sup>5</sup> The Natural Environment and Rural Communities Act 2006. [Online]. London: HMSO Available at: <http://www.legislation.gov.uk/ukpga/2006/16/contents> [Accessed 02/12/2014]

<sup>6</sup> Buckinghamshire and Milton Keynes Natural Environment Partnership (NEP), 2015 *Forward to 2020: Buckinghamshire and Milton Keynes Biodiversity Action Plan* [online] Available at: <http://www.bucksmknep.co.uk/wp-content/uploads/2014/11/Bucks-BAP-Forward-to-2020.pdf> [Accessed 31 January 2018]

## Status

- 2.5 In addition to statutory protection, some bird species are classified according to their conservation status, such as their inclusion on the Red and Amber lists of Birds of Conservation Concern (BoCC) in the UK<sup>7</sup>:
- 2.6 Red list (high conservation concern) species are those that are Globally Threatened according to IUCN criteria; those whose population has declined rapidly (50% or more) in recent years; and those that have declined historically and not shown a substantial recent recovery.
- 2.7 Amber list (medium conservation concern) species are those with an unfavourable conservation status in Europe; whose population or range has declined moderately (between 25% and 49%) in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations.
- 2.8 Green list (low conservation concern) species fulfil none of the above criteria.

## 3.0 METHODOLOGY

### Desk Study

- 3.1 In order to compile existing baseline information, the Buckinghamshire & Milton Keynes Environmental Records Centre (BMERC) was consulted in June 2016, and updated in January 2021, for existing ecological data regarding statutory and non-statutory sites designated for their bird assemblage and any existing records of notable bird species within 1km of the application site.
- 3.2 The Multi-Agency Government Information for the Countryside (MAGIC) website ([www.magic.gov.uk](http://www.magic.gov.uk)) was consulted for information on the presence of statutorily protected sites including Special Protection Areas (SPA) and Special Areas of Conservation (SAC) within 5Km and Sites of Special Scientific Interest (SSSIs), within 2Km.

### Breeding Bird Survey

- 3.3 The survey methodology employed was broadly based on that of territory mapping<sup>8</sup> as used for the British Trust for Ornithology (BTO) Common Bird Census. Standard BTO species codes and symbols for bird activities were used to identify birds and denote activity, sex and age where appropriate. The criteria used in the assessment of breeding birds has been adapted from the standard criteria proposed by the European Ornithological Atlas Committee<sup>9</sup> and are grouped into three categories: possible breeder e.g. birds observed in suitable habitat or singing male recorded, probable breeder e.g. pair in suitable habitat, territory defended, agitated behaviour or nest building and confirmed breeder e.g. recently fledged young observed, adult birds carrying food for young. Birds that were considered to be not using the site for breeding were categorised as 'non breeders' e.g. flying over the site, migrant, habitat not suitable.

<sup>7</sup> Eaton MA, Aebischer NJ, Brown AF, Hearn R, Lock L, Musgrove AJ, Noble DG, Stroud D, and Gregory RD (2015) *Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man*. British Birds 108, pp708-746

<sup>8</sup> Bibby, C.J., N.D. Burgess & D.A. Hill, 2000: Bird Census Techniques: 2nd Edition. London: Academic Press

<sup>9</sup> EOAC, 1979. Categories of Breeding Bird Evidence. European Ornithological Atlas Committee.

- 3.4 To provide a reasonable level of accuracy for determining the population status of the breeding birds on the site, three surveys were undertaken between 05.00 and 11.00 during May and June 2016. A route was mapped out prior to the surveys being undertaken, paying particular attention to any linear features, such as hedgerows and tree lines, and natural features such as areas of scrub and woodland. Bird surveys were not undertaken in unfavourable conditions, such as heavy rain or strong wind, which may negatively affect the results. Table 1 provides details of the survey dates and weather conditions.

**Table 1: Breeding Bird Survey Dates and Conditions**

Survey	Surveyor	Date	Cloud (%)	Rain
1	TPE	12.05.2016	0-20	None
2	OGJ	09.06.2016	100	None
3	EMW	29.06.2016	40-60	None

### Survey Limitations

- 3.5 Bird surveys were not undertaken on the small sections of arable land or land within the highways which comprised mainly busy roads, which were considered unlikely to support any significant breeding bird assemblage that wouldn't otherwise be recorded within the main site. Any junction improvement works are anticipated to occur largely within the extent of the existing carriageways. Therefore, the bird assemblage present within the highways is unlikely to be subject to any significant effects from habitat change.
- 3.6 Breeding bird surveys were last completed during May and June 2016. Since this time update walkover surveys, undertaken most recently in January 2021, have confirmed that on-site habitats remain unchanged and therefore it can be reasonably assumed that breeding bird assemblages have also remained the same/similar given the limited nature of the habitats present. Based on this further update surveys are not considered necessary, an approach which is supported by the Milton Keynes Conservation Officer (see Section 1.5.1 above).

### Species & Assemblage Assessment

- 3.7 The conservation value of bird populations has been measured using two separate approaches: nature conservation value and conservation status. The CIEEM guidance on ecological impact assessment assesses nature conservation value within a geographical context. To attain each level of value, an ornithological resource or one of the features (species population or assemblage of species) should meet the criteria set out in Table 2. In some cases, professional judgment may be required to increase or decrease the allocation of specific value, based upon local knowledge.
- 3.8 The recent county annual bird report, *Buckinghamshire Bird Report 2017* as published by Buckinghamshire Bird Club<sup>10</sup>, was consulted to inform the assessment.

<sup>10</sup> The Buckinghamshire Bird Club (2016); *Buckinghamshire Bird Report 2017*



Table 2: Evaluation Criteria

Nature Conservation Value	Examples of Selection Criteria
International	<p>A species which is part of the cited interest of an SPA and which regularly occurs in internationally or nationally important numbers.</p> <p>A species present in internationally important numbers (&gt;1% of international population).</p>
National	<p>A species which is part of the cited interest of a SSSI and which regularly occurs in nationally or regionally important numbers.</p> <p>A nationally important assemblage of breeding or over-wintering species.</p> <p>A species present in nationally important numbers (&gt;1% UK population).</p> <p>Rare breeding species (&lt;300 breeding pairs in the UK).</p>
Regional	<p>Species listed as Priority Species under Schedule 41 of the Natural Environment and Rural Communities (NERC) Act (2006), which are not covered above, and which regularly occurs in regionally important numbers.</p> <p>Species present in regionally important numbers (&gt;1% of regional population).</p> <p>Sustainable populations of species that are rare or scarce within a region.</p> <p>Species on the BoCC Red List and which regularly occurs in regionally important numbers.</p>
County	<p>Species listed as Priority Species under Schedule 41 of the Natural Environment and Rural Communities (NERC) Act (2006), which are not covered above and which regularly occurs in county important numbers</p> <p>Species present in county important numbers (&gt;1% of county population).</p> <p>Sustainable populations of species that are rare or scarce within a county, or listed as priority species for nature conservation under S41 of the NERC Act.</p> <p>A site designated for its county important assemblage of birds (e.g. a SINC Site).</p> <p>Species on the BoCC Red List and which regularly occur in county important numbers.</p>
Local	<p>Other species of conservation interest (e.g. all other species on the BoCC Red and Amber List and listed as Priority Species under Schedule 41 of the Natural Environment and Rural Communities (NERC) Act (2006) which are not covered above) regularly occurring in locally sustainable populations.</p>
Site	<p>All other BoCC Green-listed common and widespread species.</p>

3.9 Particular attention has been given to bird species with an associated conservation status as either WCA Schedule 1, NERC S41 species and / or BoCC Red or Amber list species in addition

to those listed in the LBAP. These species are likely to be of the greatest threat in relation to further decline, and are commonly referred to as 'notable' species.

## 4.0 RESULTS AND EVALUATION

### Desk Study

#### Statutory Designations

- 4.1 No international or national sites of conservation importance designated for their bird assemblages were identified within a 5km or 2km radius of the site, respectively.

#### Non-statutory Designations

- 4.2 A total of three locally designated sites are located within 1km of the site boundary, see Table 3 for details.

**Table 3: Non-statutory Sites located within 1km of Site Boundary**

Name	Designation	Location	Description
Milton Keynes Road Corridor	Wildlife Corridor	Adjacent west boundary (SP 875 421)	M1 corridor including verges, cuttings and adjacent habitats.
Tongwell Lake	LWS	75m north (SP 868 423)	Important site for birds, and meets the criteria for lowland open waters and margins. It is also important for <i>Odonata</i> .
Milton Keynes Wetland Corridors	Wildlife Corridor	500m east (SP 883 424)	River Ouzel and bordering habitats, including calcareous and neutral grassland (managed for hay), semi-improved pasture, recent plantations and amenity grassland.

- 4.3 Records provided by BMERC included a number of protected and notable species within the 1km search area. The majority of records were located within the sites detailed above. A full list of protected species identified during the desk study can be found in Appendix A.

### Breeding Bird Survey

#### Summary

- 4.4 A total of 27 bird species were recorded during the breeding bird surveys. Of the species observed, 10 are either protected, appear on the RSPB BoCC as declining (red or amber lists), are listed as Species of Principal Importance or are listed as key species under the Buckinghamshire and Milton Keynes LBAP. A full list of results can be found in Appendix B whilst the recorded locations of the 10 notable species can be found in Figure 1 and detailed in Table 4.
- 4.5 Of the 27 species recorded, eight species were confirmed as breeding on site, including greenfinch *Carduelis chloris*, a key species under the woodland habitat action plan for Buckinghamshire. A further three species were considered to be probable breeders including skylark *Alauda arvensis* (NERC S.41, BoCC red listed), magpie *Pica pica* and wren *Troglodytes*

*trogodytes* (both BoCC green listed), whilst the remaining 16 species were considered possible breeders or non-breeders.

**Table 4: Notable Species Recorded at Newport Pagnell during Breeding Bird Surveys 2016, and their Recent Status within Buckinghamshire.**

Species	Legal/ Conservation status	Peak Count / Number of Survey Occasions Recorded	Breeding Status†	Recent Status in Buckinghamshire
Greylag goose <i>Anser anser</i>	Amber list	4 / 2	Non-breeder	Introduced resident breeder
Mallard <i>Anas platyrhynchos</i>	Amber List LBAP	1 / 1	Possible	Abundant resident breeder and migrant
Black-headed gull <i>Chroicocephalus ridibundus</i>	Amber list LBAP	5 / 1	Non - breeder	Abundant passage and winter migrant and recent successful breeder
Swift <i>Apus apus</i>	Amber list LBAP	1 / 1	Non - breeder	Common summer migrant breeder
Skylark <i>Alauda arvensis</i>	Red list NERC S.41	12 / 3	Probable	Fairly common breeder, migrant and winter visitor
Starling <i>Sturnus vulgaris</i>	Red list NERC S.41 LBAP	11 / 2	Non-breeder	Common resident and migrant
Song Thrush <i>Turdus philomelos</i>	Red list NERC S.41 LBAP	1 / 1	Possible	Fairly common resident and migrant
Duncock <i>Prunella modularis</i>	Amber list NERC S.41 LBAP	3 / 2	Possible	Abundant resident
Meadow pipit <i>Anthus pratensis</i>	Amber List LBAP	7 / 2	Possible	Common passage migrant, fewer in winter, scarce breeder
Linnet <i>Carduelis cannabina</i>	Red list NERC S.41 LBAP	2 / 1	Possible	Fairly common resident breeder and migrant

## Description

- 4.6 The majority of species recorded are common and widespread, and were largely recorded in association within plantation woodland and hedgerows, such as blackbird *Turdus merula*, robin *Erithacus rubecula*, wren, wood pigeon *Columba palumbus*, magpie and several common tit species.

- 4.7 Buzzard *Buteo augur* were recorded foraging over the site during the latter survey occasions and breeding was considered possible by an adult bird observed alighting from mature broadleaved trees in the south-west of the site, should there be suitable nesting habitat available.
- 4.8 Whilst poor semi-improved grassland provided foraging opportunities to a range of generalist species associated with hedgerows, this habitat provided nesting conditions suitable for ground nesting species including skylark, which were considered probable breeders where pairs were observed and territories defended, over at least two surveys occasions, could be identified. Meadow pipit was also considered possible breeders within suitable grassland habitats.
- 4.9 Hedgerows appeared subject to low intensity management, and therefore provided suitable nesting habitat for a range of woodland and generalist species. Although song thrush *Turdus philomelos* were only recorded in low numbers, with a single individual on two survey occasions, breeding was considered possible where suitable habitat was present. Breeding blackcap *Sylvia atricapilla* were identified by the presence of an adult bird carrying food for chicks in the south of the site, with a regularly recorded singing male bird in the north of the site considered to be a probable breeder. Regularly recorded singing male dunnock *Prunella modularis* were also considered possible breeders within suitable habitat.
- 4.10 Finch species were regularly recorded using hedgerows across the site. Several singing male goldfinches *Carduelis carduelis* were considered possible breeders within suitable habitat, while a family of greenfinches *Carduelis chloris* including a number of recently fledged juveniles in the east of the site confirmed successful onsite breeding by this species. The proximity of arable land to the east of the site and the suitability of hedgerows attracted a pair of linnet *Carduelis cannabina* that were considered probable breeders within this habitat.
- 4.11 On a single occasion mallard *Anas platyrhynchos* was recorded using the ephemeral waterbodies in the east of the site where breeding was possible. A recently fledged juvenile pied wagtail *Motacilla alba* was also recorded around these waterbodies on the latter survey occasions and on site breeding was considered to have been successful by this species within suitable habitat.
- 4.12 In addition, a number of species were recorded flying over the site including; greylag goose *Anser anser*, grey heron *Ardea cinerea*, black-headed gull *Chroicocephalus ridibundus*, feral pigeon *Columba livia*, carrion crow *Corvus corone* and starling *Sturnus vulgaris*, however none were recorded using the site. Swallow *Hirundo rustica* and swift *Apus apus* were noted foraging above the site.

#### Breeding Bird Assemblage Value

- 4.13 A peak count of 12 skylark was recorded within grassland habitats on site and although this species is a fairly common breeding species within Buckinghamshire, the semi-improved grassland likely provides an important resource present within the surrounding landscape. Urban environs to the north and west provide very low suitability habitat for this species while arable land to the east only provides suitable habitats if cropping regimes include species favoured by skylark. However, as grassland habitats were regularly ploughed and therefore are unlikely to remain suitable throughout the breeding season, the site was considered to be of no more than **Local** nature conservation value to skylark.

- 4.14 Similarly, a peak count of seven meadow pipit is likely to be of importance within the local area as this species is a scarce breeder in Buckinghamshire. Several singing males recorded during the latter survey occasions were considered to be possible breeders; however no further evidence of breeding was obtained during surveys. Further to this, the short-term suitability of grassland habitats was likely to be of limited value for this species and the site was therefore considered to be of no more than **Local** nature conservation value to meadow pipit.
- 4.15 Waterbodies located on-site were of an ephemeral nature with limited areas of suitable nesting habitat for wildfowl species such as the mallard and greylag goose. Whilst breeding was considered possible by a small number of these species, the relatively low suitability of wetland habitats was considered to be of no more than **Site** nature conservation value for wildfowl species.
- 4.16 Other notable species recorded regularly and in low to moderate numbers and each of these individual breeding species is therefore considered to be of no more than **Local** importance.
- 4.17 The assemblage of woodland and hedgerow species recorded included buzzard, blackcap, blackbird, greenfinch, and goldfinch. These species were all considered to be abundant to common breeders within Buckinghamshire and the surrounding landscape provides a range of opportunities suitable for the hedgerow and woodland species recorded. Further to this, all were recorded in relatively low numbers, the site was considered to be of no more than **Site** nature conservation value for its hedgerow and woodland assemblage.
- 4.18 The majority of the other breeding bird species associated with the grassland, and hedgerows are all considered to be common and widespread breeding species within Buckinghamshire. The ecological value of these individual breeding species that make use of the available habitats are recognised as being of only **Site** importance. Those species over-flying the site were also considered to be of no more than **Site** importance.

## 5.0 DISCUSSION AND RECOMMENDATIONS

### Impacts of Habitat Loss to Breeding Birds

- 5.1 The potential impact of the loss or change of habitat upon breeding bird species arising from the effects of the proposals is based upon an understanding of each species' ecological requirements, the type of development, number of birds recorded on site, their nature conservation criteria based on legislation and current guidance, including their county status according to *Buckinghamshire Bird Report 2017*, and professional judgement.
- 5.2 The majority of grassland habitat within the central field compartment will be lost as part of the scheme, as will areas of bare ground, ephemeral waterbodies, arable habitat and approximately 810m of hedgerows. Associated with the highway works will be the loss of a section of hedgerow and replacement of a section of arable habitat with a sustainable drainage pond with associated wetland habitat. Green infrastructure, including native woodland, scrub planting and sustainable drainage ponds with associated wetland habitats are included within the proposed development, largely limited to the perimeter of the application boundary.

### Impact of Habitat Loss on Notable Breeding Bird Species

- 5.3 The individual species recorded that are arguably the most vulnerable to impacts from habitat loss / change are the five species considered to be of at least Local importance (discussed above). These comprise notable species that are either specially protected, appear on the BoCC Red or amber list and / or are listed as a NERC Priority Species and were recorded in locally important numbers during 2016 surveys. The habitat requirements, species account, and nature conservation importance of these species are summarised in Table 5. Impacts arising from the proposed scheme in terms of habitat loss / change have also been assessed against the proposals.

### Impacts of Habitat Loss on Other Breeding Bird Species

- 5.4 Aside from meadow pipit and skylark few species were recorded utilising grassland habitats and the impacts of this habitat loss is expected to be **Negligible** for all other species recorded.
- 5.5 For the assemblage of woodland and hedgerow bird species recorded on site, which includes a number of notable species, the impact of the proposals birds is considered to be **Negligible**. Many of the species recorded, including blackbird, greenfinch and goldfinch will readily inhabit urban environments, and the inclusion of structural woodland, scrub and tree planting will provide additional breeding and foraging resources for these species.
- 5.6 Ephemeral waterbodies will be lost as part of proposals, however given their limited suitability for the wildfowl species and the presence of suitable wetland habitat in the local area, the impact of proposals on wetland species is considered to be **Negligible**.
- 5.7 The site was isolated from all Biological Notification Sites identified during the desk study by major barriers including the M1 motorway to the west and residential development to the south. Further to this, the industrial nature of proposals is unlikely to increase the recreational use of BNSs by the public. The impacts of proposals on local non-statutory site are therefore expected to be **Negligible**.

**Table 5: Evaluation of Species Considered Potentially Sensitive to Habitat Loss / Change**

Species	Habitat Requirements	Species Account	Nature Conservation Value <sup>†</sup>	Characterisation of Expected Impact and Suggested Mitigation & Compensation	Residual Impact <sup>††</sup>
<b>Skylark</b>	Ground nesting birds favouring open farmland habitats where short, grassy or sparse vegetation provides nesting cover and foraging opportunities. Plant and animal material taken at all times of the year, but insects especially important in summer, cereal grain and weed seeds in autumn, leaves and weed seeds in winter, and cereal grain in spring.	Recorded throughout suitable areas of semi-improved grassland habitats across the site.  Probable breeder	<b>Local</b>	Given the loss of the majority of the grassland habitat, skylark will inevitably be lost as a breeding species from the site.	<b>Local adverse</b>
<b>Song Thrush</b>	Requires a mixture of trees or bushes and open habitat. Can be found in human habitat such as parkland, hedgerows, roadsides or other areas that satisfy the above criteria. Forages on a wide variety of invertebrates, including snails, supplemented by fruit when seasonally available.	Recorded flying over semi-improved grassland habitats and calling from hedgerows in the east of the site.  Possible	<b>Local</b>	Song thrush will readily habituate to new urbanised areas and given the retention of hedgerows, no significant adverse impacts are anticipated with song thrush.  The inclusion of further structural planting around the perimeter of the site and the appropriate management of the retained hedgerows will in the long term provide benefits to this species. Planting should include fruit bearing species of a local origin to provide and additional foraging resources	<b>Local beneficial</b>

Species	Habitat Requirements	Species Account	Nature Conservation Value <sup>†</sup>	Characterisation of Expected Impact and Suggested Mitigation & Compensation	Residual Impact <sup>††</sup>
<b>Dunnock</b>	Commonly invades a wide variety of scrub grown situations. Has adapted to field hedgerows, farms, railway embankments, parks, gardens and vacant urban land. Feeds mainly on insects but small seeds are an important winter food	Recorded in small numbers within hedgerows on the west of the site.  Possible breeder	<b>Local</b>	As with other scrub and woodland edge species, no adverse impacts are anticipated with dunnock.  The inclusion of further structural planting around the perimeter of the site and the appropriate management of the retained woodlands will in the long term provide benefits to this species. Dunnock will also readily habituate to new urbanised areas.	<b>Local beneficial</b>
<b>Meadow pipit</b>	Breeds in open country, especially in upland moors, also open lowland heaths, downland, salt marshes, rough grassland and dune systems	Recorded in moderate to low numbers within semi-improved grassland habitats.  Possible breeder	<b>Local</b>	Given the loss of the majority of the grassland habitat, meadow pipit will inevitably be lost as a breeding species from the site.	<b>Local adverse</b>
<b>Linnet</b>	Nests in areas of dense scrub or hedgerows. Feeds on small to medium sized seeds. Particularly dependent on weeds of open country and waste ground.	A pair of birds were recorded within hedgerows in the south of the site and included a singing male bird.  Possible breeder	<b>Local</b>	Given proposals include the retention of hedgerows, particularly in the south of the site where this species was recorded, no adverse impacts are anticipated with linnet.  The inclusion of further structural planting around the perimeter of the site will reduce disturbance associated with operational impacts of the proposals and will provide further breeding habitat for Linnet.	<b>Negligible</b>

† Based upon criteria set out in Table 3 and professional judgement.

†† Assumes that any suggested or proposed mitigation, compensation or enhancements are undertaken in full.



## Disturbance Impacts

- 5.8 Construction operations have the potential to disturb birds using the site for roosting, foraging, and breeding. Operations that are likely to disturb breeding birds include noise from vegetation clearance and initial groundworks. High level and infrequent noise disturbance may cause most birds to be displaced for short periods<sup>12</sup>. During the breeding season disturbance may lead to nest desertion or the avoidance of the area and reduce the suitability of retained nesting areas such as the hedgerows. Disturbance effects on the majority of birds are therefore expected to be short-term and temporary and are significant at no more than a local level.

## Mitigation

- 5.9 To avoid disturbance to breeding birds, ground clearance works and vegetation will be undertaken prior to the bird-breeding season (March to August, inclusive). If this is not possible, the area will be checked prior to removal of vegetation or ground works by an experienced ecologist. If active nests are found, vegetation will be left untouched and suitably buffered from works until all birds have fledged. Specific advice will be provided prior to undertaking the clearance. This would be a statutory requirement due to the protection of all nesting birds and their nests under the Wildlife and Countryside Act, 1981. A suitably qualified ecologist would supervise this.

## Enhancement

- 5.10 Additional enhancements that could be integrated within the on-going management of the site include the erection of a mixture of nest box types. The following provides details of other suitable nest box types to be erected at suitable locations:
- Given the urbanised nature of proposals, opportunities exist to encourage urban species including house sparrow, starling and swift to breed on site. Strategic placement of house sparrow and swift nest-boxes around the built development will provide new breeding sites where none were previously available.
  - A mixture of small hole (26mm and 32mm) boxes placed throughout the site on suitable trees and buildings will provide nesting opportunities for blue tit and great tit. These boxes generally have a high uptake rate.
  - Small open fronted nest boxes again should be placed throughout the site especially on trees which support a climber such as ivy which provides a degree of concealment. These boxes typically attract robin and blackbird.
- 5.11 The sustainable drainage pond proposed at the edge of the arable field compartment east of Willen Road will be designed to accommodate an area of permanent water which will provide additional grassland and wetland habitat. Vegetation here would ideally comprise a meadow grassland mixture that is suited for seasonably wet soils that may flood for short period in the winter whilst being usually well-drained in the Summer i.e. Emorsgate EM8 Mixture – Meadow Mixture for Wetlands or similar.

---

<sup>12</sup> Trewick, J. (1999). Ecological Impact Assessment. Environmental Practice Vol 1 (Issue 4), pp.289-315.

## Appendix A: Desktop Study Results

Scientific Name	Common Name	WCA Sch.1	NERC S.41	LBAP Species <sup>13</sup>	Key
<b>BoCC Red List</b>					
<i>Motacilla flava flavissima</i>	Yellow Wagtail		+	+	
<i>Alauda arvensis</i>	Sky Lark		+	+	
<i>Anser albifrons</i>	Greater White-fronted Goose		+		
<i>Anthus trivialis</i>	Tree Pipit		+		
<i>Aythya marila</i>	Greater Scaup	+	+		
<i>Calidris temminckii</i>	Temminck's Stint	+			
<i>Carduelis cabaret</i>	Lesser Redpoll		+		
<i>Carduelis cannabina</i>	Linnet		+	+	
<i>Cuculus canorus</i>	Cuckoo		+		
<i>Emberiza calandra</i>	Corn Bunting		+		
<i>Emberiza citrinella</i>	Yellowhammer		+		
<i>Larus argentatus</i>	Herring Gull		+		
<i>Limosa limosa</i>	Black-tailed Godwit	+	+		
<i>Melanitta nigra</i>	Black Scoter	+	+		
<i>Muscicapa striata</i>	Spotted Flycatcher		+	+	
<i>Numenius phaeopus</i>	Whimbrel	+			
<i>Passer domesticus</i>	House Sparrow		+	+	
<i>Passer montanus</i>	Tree Sparrow		+	+	
<i>Phalaropus lobatus</i>	Red-necked Phalarope	+	+		
<i>Philomachus pugnax</i>	Ruff	+			
<i>Streptopelia turtur</i>	Turtle Dove		+	+	
<i>Sturnus vulgaris</i>	Starling		+	+	

<sup>13</sup> Only species designated as key species under the Buckinghamshire and Milton Keynes Local Wildlife Site Criteria Habitat Action Plan's relevant to the habitats present on site have been included. These habitats include Lowland Meadows, Hedgerows and Woodland.

<i>Turdus iliacus</i>	Redwing	+		+
<i>Turdus philomelos</i>	Song Thrush		+	+
<i>Turdus pilaris</i>	Fieldfare	+		+
<i>Turdus torquatus</i>	Ring Ouzel		+	
<i>Vanellus vanellus</i>	Lapwing		+	+
<i>Melanitta fusca</i>	Velvet Scoter	+		
<i>Motacilla cinerea</i>	Grey Wagtail			
<i>Numenius arquata</i>	Curlew		+	+
<i>Phalacrocorax aristotelis</i>	Shag			
<i>Phoenicurus ochruros</i>	Black Redstart	+		
<i>Podiceps auritus</i>	Slavonian Grebe	+		
<i>Podiceps grisegena</i>	Red-necked Grebe			
<i>Scolopax rusticola</i>	Woodcock			+
<i>Turdus viscivorus</i>	Mistle Thrush			
<b>BoCC Amber List</b>				
<i>Botaurus stellaris</i>	Bittern	+	+	
<i>Calidris alpina</i>	Dunlin			
<i>Tringa nebularia</i>	Common Greenshank	+		
<i>Actitis hypoleucos</i>	Common Sandpiper			
<i>Alcedo atthis</i>	Kingfisher	+		
<i>Anas acuta</i>	Pintail			
<i>Anas clypeata</i>	Shoveler			
<i>Anas crecca</i>	Teal			
<i>Anas platyrhynchos</i>	Mallard			
<i>Anas querquedula</i>	Garganey	+		
<i>Anas strepera</i>	Gadwall			
<i>Anser brachyrhynchus</i>	Pink-footed Goose			
<i>Anthus pratensis</i>	Meadow Pipit			+
<i>Apus apus</i>	Swift			+

<i>Arenaria interpres</i>	Ruddy Turnstone			
<i>Aythya ferina</i>	Pochard			
<i>Aythya fuligula</i>	Tufted Duck			
<i>Branta bernicla</i>	Brent Goose			
<i>Bucephala clangula</i>	Common Goldeneye			
<i>Calidris canutus</i>	Red Knot			
<i>Charadrius hiaticula</i>	Ringed Plover			
<i>Chroicocephalus ridibundus</i>	Black-headed Gull			
<i>Circus aeruginosus</i>	Marsh Harrier	+		
<i>Columba oenas</i>	Stock Dove			
<i>Cygnus columbianus</i>	Bewick's Swan	+	+	
<i>Delichon urbicum</i>	House Martin			+
<i>Emberiza schoeniclus</i>	Reed Bunting		+	
<i>Falco columbarius</i>	Merlin	+		
<i>Falco tinnunculus</i>	Kestrel			+
<i>Gallinago gallinago</i>	Snipe			+
<i>Haematopus ostralegus</i>	Oystercatcher			
<i>Hirundo rustica</i>	Swallow			
<i>Hydrocoloeus minutus</i>	Little Gull	+		
<i>Larus canus</i>	Mew Gull			
<i>Larus fuscus</i>	Lesser Black-backed Gull			
<i>Larus glaucooides</i>	Iceland Gull			
<i>Larus hyperboreus</i>	Glaucous Gull			
<i>Larus marinus</i>	Great Black-backed Gull			
<i>Larus melanocephalus</i>	Mediterranean Gull	+		
<i>Larus michahellis</i>	Yellow-legged Gull			
<i>Limosa lapponica</i>	Bar-tailed Godwit			

<i>Mergellus albellus</i>	Smew			
<i>Pandion haliaetus</i>	Osprey	+		
<i>Phoenicurus phoenicurus</i>	Redstart			+
<i>Phylloscopus trochilus</i>	Willow Warbler			
<i>Platalea leucorodia</i>	Spoonbill	+		
<i>Pluvialis apricaria</i>	European Golden Plover			+
<i>Pluvialis squatarola</i>	Grey Plover			
<i>Podiceps nigricollis</i>	Black-necked Grebe	+		
<i>Prunella modularis</i>	Dunnock		+	+
<i>Pyrrhula pyrrhula</i>	Bullfinch		+	+
<i>Recurvirostra avosetta</i>	Avocet	+		
<i>Rissa tridactyla</i>	Black-legged Kittiwake			
<i>Sterna hirundo</i>	Common Tern			
<i>Sterna paradisaea</i>	Arctic Tern			
<i>Sternula albifrons</i>	Little Tern	+		
<i>Sylvia undata</i>	Dartford Warbler	+		
<i>Tringa erythropus</i>	Spotted Redshank			
<i>Tringa glareola</i>	Wood Sandpiper	+		
<i>Tringa ochropus</i>	Green Sandpiper	+		
<i>Tringa totanus</i>	Redshank			+
<b>BoCC Green List</b>				
<i>Lymnocyptes minimus</i>	Jack Snipe			
<i>Milvus milvus</i>	Red Kite	+		+
<i>Oenanthe oenanthe</i>	Wheatear			
<i>Regulus ignicapilla</i>	Firecrest	+		
<i>Tyto alba</i>	Barn Owl	+		+
<i>Egretta garzetta</i>	Little Egret			
<i>Chlidonias niger</i>	Black Tern	+		

<i>Charadrius dubius</i>	Little Ringed Plover	+		
<i>Cettia cetti</i>	Cetti's Warbler	+		
<i>Falco peregrinus</i>	Peregrine Falcon	+		
<i>Falco subbuteo</i>	Hobby	+		+
<i>Picus viridis</i>	Green woodpecker			+

### Appendix B: Land at Caldecote Farm, Newport Pagnell - 2016 Breeding Bird Survey Results & EOAC Criteria for Categorisation of Breeding Status

Species: British Common Name	Species: Scientific name	Survey 1	Survey 2	Survey 3	Conservation Status & Protection	Breeding status <sup>14</sup>
Greylag goose	<i>Anser anser</i>	4	0	0	Amber list	Non-breeder <b>F</b>
Mallard	<i>Anas platyrhynchos</i>	0	1	0	Amber list	Possible <b>H</b>
Grey heron	<i>Ardea cinerea</i>	1	0	0	Green list	Non-breeder <b>F</b>
Buzzard	<i>Buteo buteo</i>	1	2	2	Green list	Non-breeder <b>F</b>
Black-headed gull	<i>Chroicocephalus ridibundus</i>	0	0	5	Amber list	Non-breeder <b>F</b>
Rock dove/Feral pigeon	<i>Columba livia</i>	0	0	1	Green list	Non-breeder <b>F</b>
Woodpigeon	<i>Columba palumbus</i>	10	9	6	Green list	Possible <b>S, H</b>
Swift	<i>Apus apus</i>	0	0	1	Amber list	Non-breeder <b>F</b>
Magpie	<i>Pica pica</i>	0	8	7	Green list	Probable, <b>P, T, H</b>
Carrion crow	<i>Corvus corone</i>	5	1	3	Green list	Non-breeder <b>F</b>
Blue tit	<i>Cyanistes caeruleus</i>	1	6 + 3 families	1 + 1 family	Green list	Confirmed <b>FL, S, H</b>
Great tit	<i>Parus major</i>	0	1 family	0	Green list	Confirmed <b>FL, H</b>
Skylark	<i>Alauda arvensis</i>	4	12	5	Red list WCA Sch.1	Probable <b>T, S, H</b>
Swallow	<i>Hirundo rustica</i>	0	1	0	Green list	Non-breeder <b>F</b>
Long-tailed tit	<i>Aegithalos caudatus</i>	0	2 families	0	Green list	Confirmed <b>FL, H</b>
Blackcap	<i>Sylvia atricapilla</i>	1	2	2	Green list	Confirmed <b>FF, S, H</b>
Wren	<i>Troglodytes troglodytes</i>	3	9	2	Green list	Probable <b>P, T, S, H</b>
Starling	<i>Sturnus vulgaris</i>	1	11	0	Red list NERC S.41	Non-breeder <b>F</b>
Blackbird	<i>Turdus merula</i>	1	2	2	Green list	Confirmed <b>FF, S, H</b>
Song thrush	<i>Turdus philomelos</i>	1	1	0	Red list NERC S.41	Possible <b>S, H</b>

<sup>14</sup>European Ornithological Atlas Committee, 1979. *Categories of Breeding Bird Evidence*. European Ornithological Atlas Committee.

Species: British Common Name	Species: Scientific name	Survey 1	Survey 2	Survey 3	Conservation Status & Protection	Breeding status <sup>14</sup>
Robin	<i>Erithacus rubecula</i>	3	1	4 + 1 family	Green list	Confirmed <b>FL, P, S, H</b>
Duncock	<i>Prunella modularis</i>	0	3	1	Amber list NERC S.41	Possible <b>S, H</b>
Pied wagtail	<i>Motacilla alba</i>	0	1 + 1 Juv	1 Juv	Green list	Confirmed <b>FL, H</b>
Meadow pipit	<i>Anthus pratensis</i>	0	7	2	Amber list	Possible <b>S, H</b>
Greenfinch	<i>Carduelis chloris</i>	0	2	2 + 1 family	Green list	Confirmed <b>FL, P, S, H</b>
Linnet	<i>Carduelis cannabina</i>	0	2	0	Red list NERC S.41	Possible <b>S, H</b>
Goldfinch	<i>Carduelis carduelis</i>	0	11	3	Green list	Possible <b>S, H</b>
<b>Total No. Species:</b>	<b>27</b>	<b>13</b>	<b>22</b>	<b>18</b>		

**Breeding Status evidence can be broken down into four sections, each with their own codes, as defined by the European Ornithological Atlas Committee:**

#### Confirmed breeder

**DD** – distraction display or injury feigning

**UN** – used nest or eggshells found from this season

**FL** – recently fledged young or downy young

**ON** – adults entering or leaving nest-site in circumstances indicating occupied nest

**FF** – adult carrying faecal sac or food for young

**NE** – nest containing eggs

**NY** – nest with young seen or heard

**Probable breeder** - Evidence accumulated during the survey indicates that the bird species is breeding on site.

**P** – pair in suitable nesting habitat

**T** – permanent territory (defended over at least 2 survey occasions)

**D** – courtship and display

**N** – visiting probable nest site

**A** – agitated behaviour

**I** – brood patch of incubating bird (from bird in hand)

**B** – nest building or excavating nest-hole

**Possible breeder** - Evidence accumulated during the survey indicates that the bird species could be breeding on site, but the evidence is less conclusive than that obtained for probable breeders.

**H** – observed in suitable nesting habitat

**S** – singing male

#### Non-breeder

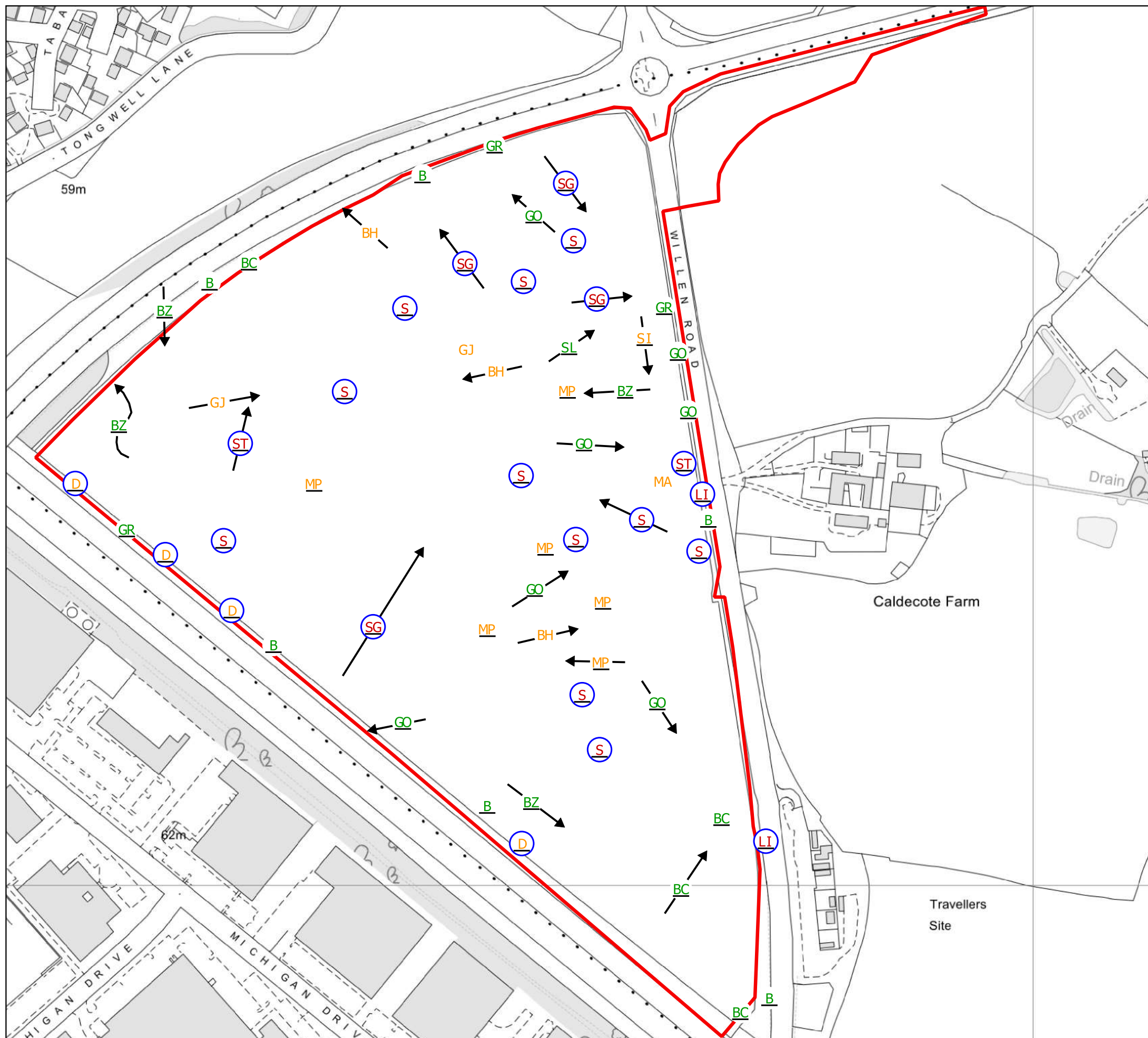
**F** – flying over

**M** – migrant

**U** – summering non-breeder

**UH** – observed in unsuitable nesting habitat





This drawing is the property of FPCR Environment and Design Ltd and is issued on the condition it is not reproduced, retained or disclosed to any unauthorised person, either wholly or in part without written consent of FPCR Environment and Design Ltd.

Ordnance Survey material - Crown Copyright. All rights reserved.  
Licence Number: 100019980

- Site Boundary
- BoCC Red-Listed Species**
- LI Linnets
- S Skylark
- ST Song Thrush
- SG Starling
- BoCC Amber Listed Species**
- BH Black-headed Gull
- D Dunnock
- GJ Greylag Goose
- MA Mallard
- MP Meadow Pipit
- SI Swift
- BoCC Green List Species**
- B Blackbird
- BC Blackcap
- BZ Buzzard
- GO Goldfinch
- GR Greenfinch
- SL Swallow
- Additional Protections:**
- NERC Species of Principle Importance
- Schedule 1 Species
- LBAP Species (underlined)
- Species only seen to fly over site at this location

client  
Newlands Developments Limited  
project  
Land at Caldecote Farm, Newport Pagnell  
drawing title  
Breeding Bird Survey Results - Notable Species

scale  
1:3000 @ A3  
drawing / figure number  
**Figure 1**  
drawn  
OGJ / TJM  
issue  
3/3/2021  
rev