

Breeding Bird Survey

Land at Stanborough
Hertfordshire

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LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date.

This report provides a snap shot of the species that were present at the time of the survey only and does not consider seasonal variation. Furthermore, where access is limited or the site supports habitats which are densely vegetated only dominant species maybe recorded.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

Background

- 1.1 The Ecology was commissioned by Gascoyne Cecil Estates to undertake a breeding bird survey on land at Stanborough, Hertfordshire.
- 1.2 This report presents the findings of the surveys on site, which aim specifically to assess the sites potential to support breeding birds. Potential mitigation measures and recommendations for the site are included within this report.
- 1.3 Section 2 of this report sets out the methodology of The Ecology Partnership's survey. In Section 3 the results of the desk and field survey are presented. The discussion and implications for development are found in Section 4. Finally, conclusions are provided in Section 5.

Site Context and Status

- 1.4 The site is situated on the northeast edge of the town of Hatfield, Hertfordshire. There is dense housing to the south, with the A1 (M) bordering the eastern edge. To the north and west is largely a rural agricultural landscape. Welwyn Garden City lies less than 1km to the north and St Albans approximately 4km to the south west. The site was largely used as arable fields and horse paddocks at the time of the survey interspersed with hedgerows and isolated mature oak trees. There are designated sites within 2km.



Figure 1: Approximate location of the red line boundary

Description of the Proposed Development

- 1.5 It is proposed to develop the majority of the agricultural land within the red line boundary outlined above on into a new mixed use urban extension. The exact details of the proposed development are yet to be finalised and will be informed by a number of surveys, of which ecology is one. There will be space for public open land and cycle pathways.

2.0 Methodology

- 2.1 The survey was conducted on three dates between late April and July 2017 with each morning visit preceded by an evening survey to assess territories. All surveys were undertaken by Dr Jonty Denton FRES FLS MCIEEM CEcol. These visits, and the weather conditions during each are detailed in Table 1 below:

Table 1: Weather conditions during bird surveys conducted on the site

Date	Weather conditions for the morning surveys	Visit Ref
25 th -26 th April 2017	Dry, 4°, overcast, 2/5 wind	Early season
6 th -7 th June 2017	Dry, 11°C, 50% cloud, 2/5 wind	Mid Season
19 th -20 th July 2017	Dry, 16°C, 75% cloud, 1/5 wind	Late season

- 2.2 The survey was conducted using standard Common Birds Census (CBC) methodology as developed by the British Trust for Ornithology (BTO) (Gilbert et al, 1998). This method uses registration mapping which, with appropriate survey input, can allow the numbers of breeding territories and distribution of territories to be determined for each species. The method was designed as a conservation tool for the BTO in 1962 and is recognised as a reliable and accurate method of surveying birds.
- 2.3 The BTO recommend one early season visit between mid April and mid May, and one late season site visit between mid May and late June, with at least four weeks between the survey dates. An evening and morning visit were made to the sites in April and June and an additional July was made to this site to increase survey effort and gain additional data on bird territories.
- 2.4 The resultant species maps will show the location of each species seen during the transect walk (See Appendix 2). Repeated sightings at certain locations indicate territories or nest sites for different species. This allows the number of territories of all species within individual parts of the survey area to be known and, thus, their relative importance to be assessed.
- 2.5 The more survey visits that are made to a survey area, the more accurate the assessment can be. There are two main reasons why a reasonable number of visits should be undertaken through the breeding season. Seasonal timings of breeding activity vary between species for example many resident species establish territories as early as March while some migrant species do not even arrive in this country to start breeding until May. Only a proportion of individuals of each species will be detected on each visit and

some, particularly secretive or low-density species, can be quite elusive and require several visits to detect.

- 2.6 As with any bird survey, males are more easily detected than females, and any records of males singing may represent a pair (male and female).

Survey constraints

- 2.7 Traffic noise, dog walkers and wind all disturbed the birds and reduced bird detectability across the three surveys.

3.0 Results

- 3.1 The survey recorded a total of 35 bird species of which 22 species were considered to breed or hold territory in habitats within or fringing the site. An additional 3 species were seen flying overhead and not actively using the site.

- 3.2 Table 2 shows the numbers of territories of each species considered to be breeding within the survey area. It must be noted that territories are allotted to an area based on repeated sightings of a bird or hearing a call in an area. This indicates where the nest is considered likely to be. They commonly extend into adjacent areas.

Table 2: Numbers of territories of each species considered to breed in the survey area at Stanborough, Hertfordshire in the 2017 survey season

Species		Approximate No. Pairs	Location
Blue tit	<i>Cyanistes caeruleus</i>	4	Peripheral hedgerows and treelines
House Sparrow	<i>Passer domesticus</i>	5	Nesting around farm buildings in the NE and along Great Braitch Lane
Robin	<i>Erithacus rubecula</i>	6	Peripheral hedgerows and copses
Skylark	<i>Alauda arvensis</i>	8	All arable fields
Wren	<i>Troglodytes troglodytes</i>	4	Peripheral hedgerows
Blackbird	<i>Turdus merula</i>	5	Peripheral hedgerows and treelines
Dunnock	<i>Prunella modularis</i>	6	Peripheral scrub and hedgerows
Song Thrush	<i>Turdus philomelos</i>	2	Peripheral hedgerows; fledged birds

			seen on Great Braitch Lane and Coopers Green Lane
Great tit	<i>Parus major</i>	3	Peripheral treelines and woodland copse
Common Pheasant	<i>Phasianus colchicus</i>	2	Edges of fields
Red-legged Partridge	<i>Alectoris rufa</i>	5	Edges of fields
Wood Pigeon	<i>Columba palumbus</i>	±10	Boundary treelines and copses
Stock Dove	<i>Columba oenas</i>	1	1 pair in dead hollow tree in island copse in eastern field
Swallow	<i>Hirundo rustica</i>	2	Pairs in stables in NE corner (off site)
Chiffchaff	<i>Phylloscopus collybita</i>	2	Boundary treelines and copses
Blackcap	<i>Sylvia atricapilla</i>	3	Boundary treelines and copses
Lesser Whitethroat	<i>Sylvia curruca</i>	1	Island copse and along Green Lanes
Whitethroat	<i>Sylvia communis</i>	2	Central hedgerow in western field
Chaffinch	<i>Fringilla coelebs</i>	3	Boundary treelines and copses
Goldfinch	<i>Carduelis carduelis</i>	3	Peripheral hedgerows
Linnet	<i>Carduelis cannabina</i>	4	Peripheral hedgerows, across whole site
Yellowhammer	<i>Emberiza citrinella</i>	2	Central hedgerow in western field

3.3 House sparrows were seen frequently within most hedgerows on site, particularly along Great Braitch Lane and around the farm buildings in the NE corner and are considered likely to be breeding within fringing habitats. Blue tit, robin and wrens were all heard and seen along the central hedgerows and within the woodland copse in the LNR on a regular basis and are considered likely to be breeding within these habitats, or within adjacent habitats. Skylarks were seen and heard calling within all fields on all three visits and are thought to be nesting within the arable habitat dominating the site.

3.4 The key areas of habitat for common bird species on site are considered to be the boundary hedgerows and trees. The island copse in the eastern field and the off site woodland copse in the LNR towards the west are also key areas of high bird density. The arable fields provide feeding habitat for a range of species, and nesting habitat for skylarks and red-legged partridges.

- 3.5 Off-site habitats are also considered to be key for other common species. Several species were heard within the woodland off site in the southwest corner such as great tit, chiffchaff and wren. The gardens along the southern edges also play host to a range of common species and are likely to host blue tit, house sparrows and finches.

Additional species

- 3.6 Details of an additional 13 bird species recorded are given in Table 3. These birds were considered to be using the site to pass through to further habitats and not used for breeding. Many are seen feeding within the arable fields or adjacent treelines. Some of the common species may breed in adjacent habitats off site but these habitats are outside of the boundary and are understood to be retained.
- 3.7 Three species were seen flying over the site and were not considered to be actively using the site in any way during the survey period. These species were lapwing (*Vanellus vanellus*), lesser black-backed gull (*Larus fuscus*) and green woodpecker (*Picus viridis*).

Table 3: Additional species recorded in the survey area at Stanborough, Hertfordshire during the 2017 survey season

Species		Details
Carrion crow	<i>Corvus corone</i>	Mixed flocks of JD and C feeding in the fields. Pairs seen over farm buildings in NE corner.
Canada Goose	<i>Branta canadensis</i>	Pair landed in NE field in April
Buzzard	<i>Buteo buteo</i>	Single bird in island copse
Red Kite	<i>Milvus milvus</i>	Landed in horse paddock on two occasions
Black-headed Gull	<i>Larus ridibundus</i>	Landed in eastern field but no breeding habitat considered to be present
Collared Dove	<i>Streptopelia decaocto</i>	Birds seen in fields by Coopers Green Lane
Swift	<i>Apus apus</i>	Flying overhead feeding on inverts above fields
Peregrine	<i>Falco peregrinus</i>	Feeding in island copse in eastern field
Jay	<i>Garrulus glandarius</i>	Single bird seen in woodland copse
Magpie	<i>Pica pica</i>	Single birds around the edges of the site
Jackdaw	<i>Corvus monedula</i>	Mixed flocks of JD and C feeding in the fields. Pairs seen over farm buildings in NE corner.
House Martin	<i>Delichon urbica</i>	Flying overhead feeding on inverts above fields
Bullfinch	<i>Pyrrhula pyrrhula</i>	Single bird seen in western field in April

4.0 Discussion and Recommendations

Assessment of bird community

- 4.1 Table 4 gives details of species of conservation importance recorded during the survey.
- 4.2 The aspects of the breeding community which have been considered in this assessment include:
- Rarity and species of conservation importance,
 - Diversity (number of species present), and
 - Size of populations,

Rarity and species of conservation importance

- 4.3 Species considered to be of conservation importance are those included in Annex 1 of the EU Birds Directive (e.g. Birdlife International 2004), Schedule 1 of the Wildlife and Countryside Act (WCA), the recently revised Birds of Conservation Concern (BOCC) Red list (Eaton M.A et al (2009)) and species included in the UK Biodiversity Action Plan.
- 4.4 Peregrine Falcon was noted to be feeding within the island copse in the eastern field of the site. This species is on Annex 1 of the EU Council Directive on the Conservation of Wild Birds.
- 4.5 Red kite and peregrine falcon are also both on Schedule 1 Part 1 of the Wildlife and Countryside Act 1981. Both species seen to be feeding on site, but not considered to be breeding.

Birds of Conservation Concern Red List species

- 4.5 Five of the species recorded during the survey are included in the BOCC Red list (Eaton et al, 2015). BOCC Red List species are those whose UK breeding population or breeding range has contracted by 50% or more in the preceding 25 years, or in the case, over the period since BOCC assessment began in 1969: 'longer term'.

4.6 These are skylark, song thrush, yellowhammer, linnet and house sparrow. All of these species were considered to hold territories within the survey area. A single lapwing was also seen to fly overhead of the site but did not land. This species is also on the BoCC Red List.

4.7 Several species on the BoCC Amber list were also recorded on site: Dunnock, bullfinch, house martin, swift, stock dove and black-headed gull. Lesser black-headed gull was seen to fly overhead but did not land in the site.

UK Biodiversity Action Plan priority list

4.8 UK BAP priority species were those that were identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP). All of the BOCC Red List species recorded on site are also UK BAP priority bird species. Dunnock is also a BAP priority species.

Table 4: Bird species of conservation importance recorded in the survey area at Stanborough, Hertfordshire during the 2017 survey season

Species	Annex 1	Schedule 1	BOCC Red List	BOCC Amber List	UK BAP
Peregrine Falcon	◆	◆			
Red Kite		◆			
Dunnock				◆	◆
Black-headed gull				◆	
Stock dove				◆	
Swift				◆	
House martin				◆	
Yellowhammer			◆		◆
Skylark			◆		◆
Song thrush			◆		◆
Linnet			◆		◆
Yellow wagtail			◆		◆
House sparrow			◆		◆

Annex 1: EU Birds Directive; Schedule 1: Wildlife and Countryside Act; BOCC: Red List of Birds of Conservation Concern; UK BAP: UK Biodiversity Action Plan priority list

Diversity

- 4.9 The total of 35 species recorded on three survey visits, of which approximately two thirds are considered to be breeding on site, within the hedgerow or field habitats. The species diversity is considered to be fairly good, with a range of birds of prey, common garden passerines and farmland specialists present on site. This reflects the site's location adjacent to housing estates, as well as vast areas of further agricultural land to the north. The site is on the suburban boundary and is able to support a variety of species with numerous different feeding and opportunities.

Size of populations

- 4.10 Most breeding species occurred in low densities along the hedgerow and treeline habitats off-site. The arable fields provide several ground nesting birds (pheasant, red-legged partridge and skylark) with large areas of relatively undisturbed ground (during the crop season). Partridges were seen in relatively high numbers, especially in the eastern fields. Skylarks were found in every field, often more than one territory was present. There is excellent feeding habitat around the edges of the site and in adjacent woodland habitat in the LNR for more common passerines. The connective treelines and hedgerows between fields provide a variety of berries and invertebrate food sources for birds. Wood pigeon and carrion crow numbers also were high, although this is not uncommon.
- 4.11 The numbers of several species are undoubtedly higher than recorded, in particular those of common garden species, which commonly nest within structures and trees and are often easily disturbed by human interaction. Estimates were based on counts of apparently territorial pairs with no visible nests or young present at the time of the surveys. Only song thrush fledglings were seen on site in the June survey.

Habitats

- 4.12 The site comprises a fairly uniform habitat of arable fields with dense treelines and hedgerows bordering the site. Tree and central hedgerows were notable in terms of BoCC

Red List and UK BAP species such as song thrush, linnet, yellowhammer and house sparrow. These edge habitats were identified as supporting a wide range of common bird species. As such it is recommended that the masterplan be devised to ensure that the boundary habitat be retained and enhanced.

4.13 The arable fields are considered to be prime nesting habitat for skylarks and mitigation will be required to maintain a suitable nesting area within the red line boundary. The arable fields provide a good food source for a number of species. Other ground nesting birds also use this habitat such as red-legged partridge.

4.14 Schedule 1 birds have been seen hunting and feeding over the fields within the site. There are a number of rabbits on site and young birds that provide these species with a food source. The grassland (horse paddocks) and hedgerows are key hunting habitat and the mature trees provide vantage points and feeding perches.

Enhancements

4.15 Skylarks are ground-nesting birds, which typically utilise cereal crops, set-aside and grassland although a wide range of arable crops may be used. They are particularly associated with vegetation 20–50cm high. Skylark avoid nesting close to hedges and even isolated structures such as pylons, trees or bushes in order to avoid predation. Traditionally skylark plots are created in field sown with winter crops. Skylark plots are created by switching off the drill, or lifting it up, to create undrilled patches at least 3 m wide. Skylarks do not generally nest in the skylark plots, but instead use them for foraging. The Illustrative Masterplan includes areas of community space and new grassland to the east. A mowing regime where plots are not mown and are left to form tussocks could create a similar habitat; encouraging skylarks to nest within areas of longer rank grassland and forage in the insect rich wild flower grassland areas and amongst the treelines.

4.16 If maintained on site, the areas where skylarks are encouraged to nest should be set aside and have restricted access by members of the public. This habitat type will also create

opportunities for other ground nesting birds such as red-legged partridges and pheasant. Electric fencing could be placed around set aside areas to minimise human disturbance and reduce predation by foxes and domestic cats. Dog walking should be separate to these mitigation areas. Monitoring of the skylark population on site is recommended with several surveys post development recommended 2 and 5 years after the development site has been completed.

4.17 However, it is considered that that off-site mitigation will be more effective in maintaining the favourable conservation status of the local skylark population. Arable or grassland fields adjacent to the current site boundary to the north or west could be set aside and managed for skylarks with plots created. No public access should be possible to this land to maintain the isolation away from disturbance. Dog walking should be separate to these mitigation areas.

4.18 It is recommended that as many of the boundary treelines and hedgerows be retained as possible. A native planting scheme is recommended to enhance the existing structures and fill any gaps to maintain connectivity around the site. Species such as hazel, hawthorn, dog wood, elder, oak, holly and dogrose will provide a variety of food sources for invertebrates and birds. The hedgerows also provide corridors or dispersing animals such as small mammals. The hedgerows provide some ground nesting birds will places of shelter from predation and dispersal corridors.

4.19 Creation of rough marginal grassland sown with a rich wildflower mix along the edges of the woodland and around the proposed development will provide invertebrate sources for a number of bird species, both red list and common species. These grassland strips should be inaccessible to the public to reduce disturbance. An occasional mowing regime outside of nesting bird and flowering season should be the only management undertaken.

4.20 All large mature and veteran trees are recommended to be retained as nesting habitat and perches for birds of prey and Schedule 1 birds. The island cope in the eastern field is recommended to be retained with a buffer around the edge and connective hedgerows instated to the copse to allow for a range of species to utilise this habitat area.

4.21 The area around the farmyard and stables in the NE corner is recommended to be retained in situ, to minimise further disturbance to birds utilising this off site habitat.

4.22 The UK breeding season for most bird species takes place between March and September. It is therefore recommended that any works affecting the suitable bird habitat on site (including fields and hedgerows) be carried out outside of this period. If this is not possible, it is further recommended that areas suitable vegetation and ground be checked for active nests no more than 48 hours prior to clearance. Should active nests be discovered, any works in the vicinity of the nest must cease until the birds have fledged the nest.

4.23 Bird boxes may be hung on suitable retained trees to increase the number of breeding opportunities throughout the site. Recommended boxes include:

- Schwegler 1N Deep Nest Box – give added nest protection from predators
- Schwegler 1B Bird Box – general purpose bird box, suitable for many species.
- Schwegler Swallow nest box – several of these should be erected under the eaves of newly created houses and garages to replace the opportunities lost by the loss of the horse stables on site.
- 1SP Swegler Sparrow terraces - This terrace provides ideal nesting opportunities for three families. It is durable, breathable and will last many decades. It may also occasionally attract tits, redstarts and spotted flycatchers.

5.0 Overall Conclusions

5.1 The site is dominated by arable fields with treelines and hedgerows bordering the site. The field margins provide some tall grassland and scrub species in places. The edges and hedgerows were identified as supporting a range of common bird species and the arable fields were shown to support skylarks.

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- 5.2 A total of 35 bird species were found using the site, of which 22 were considered to be breeding on site or in habitat fringing the site. Two Schedule 1 Part 1 birds were found feeding on site as well as 5 BoCC Red List species. Species ranged from farmland specialists, birds of prey and common passerine species.
- 5.3 It is recommended that the edge treelines and hedgerows be retained and enhanced within the development master plans. Buffer strips of rough grassland are recommended along the base of the hedgerows to increase shelter and foraging opportunities for a range of birds. Native species of shrub and wildflowers can be planted to provide increased shelter and food sources for birds and other wildlife.
- 5.4 Tall grassland areas are recommended to be set aside to maintain habitat for breeding skylarks within the redline boundary. Access by the public should be restricted in some areas to reduce disturbance and use of information signs should be encouraged.
- 5.5 The UK breeding season for most bird species takes place between March and September. It is therefore recommended that any works affecting the suitable bird habitat on site (including buildings and areas of shingle) be carried out outside of this period or under ecological watching brief, as detailed within this report.

6.0 References

CIRIA C567 (2005) *Working with wildlife – site guide*. CIRIA, London.

BirdLife International (2004) *Birds in Europe: Population estimates, trends and conservation status*. Cambridge, UK: BirdLife International. (BirdLife Conservation Series No. 12).

Eaton M.A et al (2015) *Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel islands and Isle of Man*. British Birds 108: 708-746

Gilbert, G., D.W. Gibbons and J. Evans (1998) *Bird Monitoring Methods*. RSPB.

UK BAP Priority Bird Species (2009) <http://jncc.defra.gov.uk/page-5163>

Internet resources:

Google Maps: www.maps.google.co.uk

Magic Interactive Map: www.magic.gov.uk

Appendix 1: Full species list for each survey visit

Species		BoCC Status	Other legislation	25th-26th April	6th-7th June	19th-20th July
Canada Goose	<i>Branta canadensis</i>			2		
Common Pheasant	<i>Phasianus colchicus</i>			6	2	3
Red-legged Partridge	<i>Alectoris rufa</i>			20	4	3
Buzzard	<i>Buteo buteo</i>			1		
Red Kite	<i>Milvus milvus</i>		W&CA 1981 Sch1 Part 1	1	1	
Lapwing	<i>Vanellus vanellus</i>	R		1		
Lesser black-backed Gull	<i>Larus fuscus</i>	A		1		
Black-headed Gull	<i>Larus ridibundus</i>	A		2		
Wood Pigeon	<i>Columba palumbus</i>			20	11	7
Stock Dove	<i>Columba oenas</i>	A		2		2
Collared Dove	<i>Streptopelia decaocto</i>			2	2	
Green Woodpecker	<i>Picus viridis</i>			1 heard		
Swift	<i>Apus apus</i>	A				20
Peregrine	<i>Falco peregrinus</i>		W&CA 1981 Sch1 Part 1; Annex 1 BD	1		
Jay	<i>Garrulus glandarius</i>			1		
Magpie	<i>Pica pica</i>			2	2	3
Jackdaw	<i>Corvus monedula</i>			6	4	2
Carrion Crow	<i>Corvus corone</i>			20	4	3
Blue Tit	<i>Parus caeruleus</i>			6	8	7
Great Tit	<i>Parus major</i>			2	6	4
Skylark	<i>Alauda arvensis</i>	R		8	8	6
House Martin	<i>Delichon urbica</i>	A				11
Swallow	<i>Hirundo rustica</i>			1	2	6
Chiffchaff	<i>Phylloscopus collybita</i>			2	1	2
Blackcap	<i>Sylvia atricapilla</i>			6	5	4
Lesser Whitethroat	<i>Sylvia curruca</i>			2		
Whitethroat	<i>Sylvia communis</i>			4	6	4
Wren	<i>Troglodytes troglodytes</i>			6	8	7
Blackbird	<i>Turdus merula</i>			10	11	9
Song Thrush	<i>Turdus philomelos</i>	R		2	2	3

Robin	<i>Erithacus rubecula</i>			7	6	8
Duncock	<i>Prunella modularis</i>	A		5	4	4
House Sparrow	<i>Passer domestica</i>	R		8	5	6
Bullfinch	<i>Pyrrhula pyrrhula</i>	A		1		
Chaffinch	<i>Fringilla coelebs</i>			6	7	5
Goldfinch	<i>Carduelis carduelis</i>			10	5	7
Linnet	<i>Carduelis cannabina</i>	R		2	6	6
Yellowhammer	<i>Emberiza citrinella</i>	R		4	2	1

Appendix 2: Species Distribution Map

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