



Mariposa Developments Ltd

**Panshanger Airfield, Hertfordshire**

**BREEDING BIRD SURVEY REPORT**

February 2015

DRAFT

**FPCR Environment and Design Ltd**

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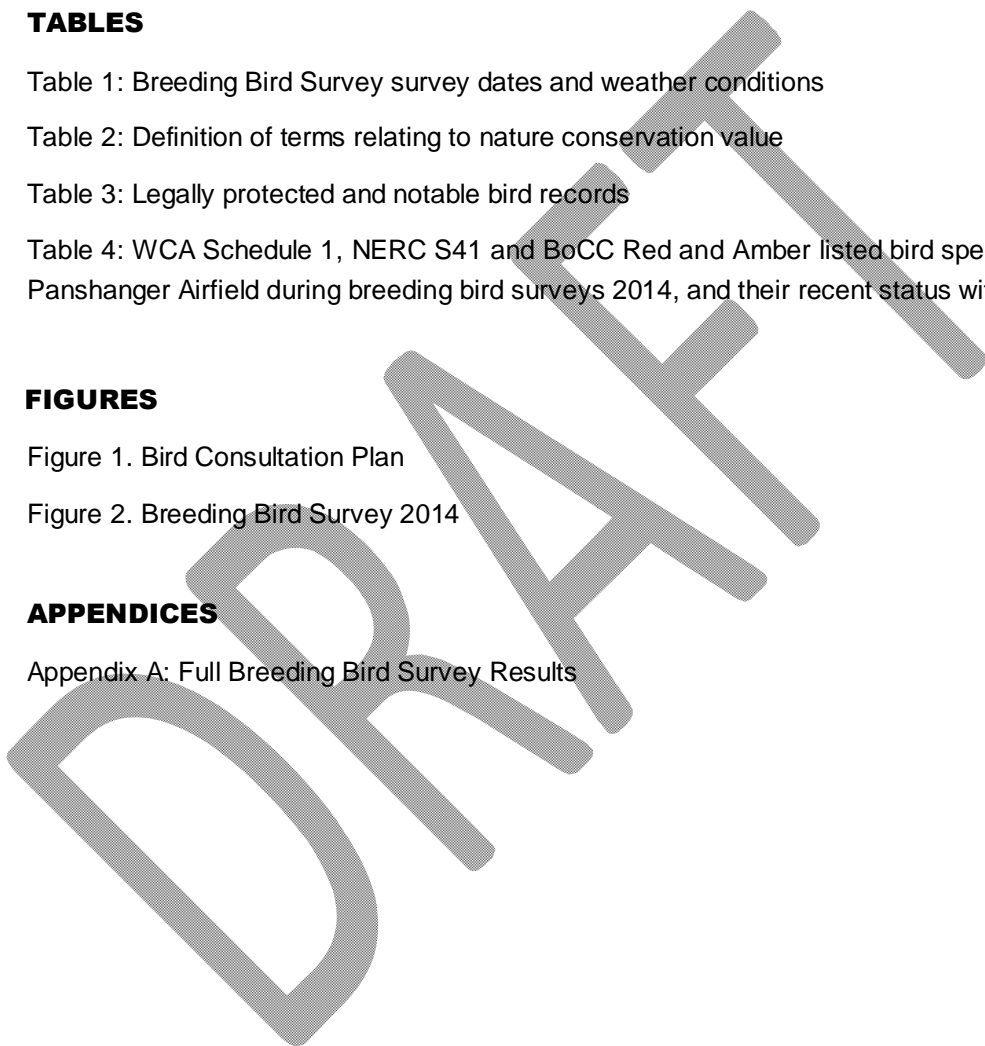
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Appendix A: Full Breeding Bird Survey Results



## 1.0 INTRODUCTION

- 1.1 This Breeding Bird Survey report has been prepared by FPCR Environment and Design Ltd on behalf of Mariposa Developments Ltd to present the findings of a breeding bird survey undertaken in 2014 for a proposed development on lands at Panshanger Airfield in Hertfordshire.
- 1.2 The “survey area” consisted c.53.6ha of semi-improved and improved grassland, the majority of which is maintained as short turf to facilitate the operations of the North London Flying School. Areas of unmown, semi improved grassland were present within the centre, and on the peripheries of the light aircraft runway, at hedgerow bases, woodland margins and surrounding disused hangars and other buildings.
- 1.3 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;
  - To identify areas of ornithological interest and make recommendations to minimise the potential impact of development and where feasible to consider opportunities for additional habitat creation.

## 2.0 RELEVANT LEGISLATION

- 2.1 The **Wildlife and Countryside Act (WCA) 1981** (as amended) 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;
  - Take or destroy the egg of any wild bird.
- 2.2 Species listed on **Schedule 1** of the **WCA 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**, Section 41 (S41) 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 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** (Eaton *et al.*, 2009<sup>1</sup>):

<sup>1</sup> Eaton, M.A., Brown, A.F., Noble, D.G., Musgrove, A.J., Hearn, R.D., Aebischer, N.J., Gibbons, D.W., Evans, A. and Gregory, R.D. (2009). Birds of Conservation Concern 3: the population status of birds in the United Kingdom, Channel Islands and Isle of Man. *British Birds*, 102, 296–341.

- 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.
- Amber list (medium conservation concern) species are those with an unfavourable conservation status in Europe; those 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.
- Green list (low conservation concern) species fulfil none of the above criteria.

### 3.0 METHODOLOGY

#### Desk Study

- 3.1 Hertfordshire Environmental Records Centre (HERC) and online biodiversity resources were consulted for species presence records within 1km of the site boundary.

#### Field Survey

- 3.2 To provide a reasonable level of accuracy for determining the population status of breeding birds on the site, it was considered that three survey visits were required. Surveys were undertaken between March and June 2014.
- 3.3 The survey methodology employed was broadly based on that of territory mapping (Bibby *et al.*, 2000<sup>2</sup>) as developed by the British Trust for Ornithology (BTO). Standard BTO species codes and symbols for bird activities were used to identify birds and denote activity, sex and age where appropriate.
- 3.4 The criteria used in the assessment of breeding birds has been adapted from the standard criteria proposed by the European Ornithological Atlas Committee (EOAC 1979<sup>3</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.
- 3.5 The site was walked over a one day period by an ecologist experienced in bird surveying, between 05:00 and 11:00. A route was mapped out prior to the surveys being undertaken, and surveys paid particular attention to linear features, such as hedgerows and tree lines, and natural features such as areas of scrub and waterbodies. Bird surveys were not undertaken in unfavourable conditions such as heavy rain or strong wind, which may negatively affect the results. *Table 1* identifies the dates and weather conditions of the surveys.

<sup>2</sup> Bibby, C.J., Burgess, N.D., Hill, D.A. and Mustoe, S.H. (2000). *Bird Census Techniques*, 2nd Edition. Academic Press, London.

<sup>3</sup> European Ornithological Atlas Committee. 1979. *Categories of Breeding Bird Evidence*. European Ornithological Atlas Committee.

**Table 1: Breeding Bird Survey survey dates and weather conditions**

Date	Cloud Cover (%)	Rain	Wind	Visibility
31.03.2014	100	None	Still	Good
21.05.2014	40	None	Light breeze	Very good
16.06.2014	100	None	Gentle breeze	Good

- 3.6 The conservation value of bird populations has been measured using two separate approaches: nature conservation value and conservation status. The IEEM 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* below. In some cases, professional judgement may be required to increase or decrease the allocation of specific value, based upon local knowledge.

**Table 2: Definition of terms relating to nature conservation value**

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>

Nature Conservation Value	Examples of Selection Criteria
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>
District	<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 are rare in the locality or in the relevant Natural Area profile.</p> <p>Species present in numbers just short of county importance.</p> <p>Sustainable populations of species which are rare or scarce within the locality.</p> <p>A site whose designation falls just short for inclusion for its county important assemblage of birds (e.g. a SINC Site).</p> <p>Other species on the BoCC Red List and which are considered to regularly occur in district 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>

3.7 Particularly attention will be 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. 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

### Desk Study

4.1 Consultations with HERC identified 18 notable bird species within 1km of the application boundary, including five WCA Schedule 1 species, twelve species listed under S41 of the NERC Act and / or 13 Red list species. These are presented in *Table 3* below and *Figure 1*.

**Table 3: Legally protected and notable bird records**

Species	Scientific Name	Conservation Status	Location
Barn Owl	<i>Tyto alba</i>	WCA Sch 1	1.1 km north; 2km south
Brambling	<i>Fringilla montifringilla</i>	WCA Sch 1	1.3km west
Common Bullfinch	<i>Pyrrhula pyrrhula</i>	NERC, Amber list	1.3km west; 1.4km east
Common Cuckoo	<i>Cuculus canorus</i>	NERC, Red list	On site; 1.3km west
Common Kingfisher	<i>Alcedo atthis</i>	WCA Sch 1, Amber list	1.1 km north
Common Linnet	<i>Carduelis cannabina</i>	NERC, Red list	340m northwest; 1.3km west
Corn Bunting	<i>Emberiza calandra</i>	NERC, Red list	1.8km east
Eurasian Hobby	<i>Falco subbuteo</i>	WCA Sch 1	1.24km east; 1.3km west
Grey Partridge	<i>Perdix perdix</i>	NERC, Red list	1.24km east; 1.36km south; 1.53km north
Lesser Spotted Woodpecker	<i>Picoides minor</i>	NERC, Red list	1.1 km north
Marsh Tit	<i>Poecile palustris</i>	NERC, Red list	On site; 420m northeast
Northern Lapwing	<i>Vanellus vanellus</i>	NERC, Red list	1.2km east
Red Kite	<i>Milvus milvus</i>	WCA Sch 1	1.1 km north; 1.3km west
Redwing	<i>Turdus iliacus</i>	WCA Sch 1, Red list	1.3km west
Song Thrush	<i>Turdus philomelos</i>	NERC, Red list	900m east; 1.3km west
Spotted Flycatcher	<i>Muscicapa striata</i>	NERC, Red list	1.35km south
Yellow Wagtail	<i>Motacilla flava flavissima</i>	NERC, Red list	1.35km and 1.8km south
Yellowhammer	<i>Emberiza citrinella</i>	NERC, Red list	On site; 1.3km west

## Field Survey

- 4.2 A total of 45 species were observed within the application boundary, a full list is presented in Appendix A. 22 species were either confirmed as breeding or considered probable breeders, ten were considered possible breeders and 13 were non-breeders.
- 4.3 Of the 45 observed bird species, 17 have some conservation status as either WCA Schedule 1, NERC S41 species and/or BoCC Red or Amber list species. Conservation status details for each of these species are presented in *Table 4* along with recent county status and survey site breeding status. The locations, conservation status and site breeding status for each species is mapped and presented in the *Figure 2*.



**Table 4: WCA Schedule 1, NERC S41 and BoCC Red and Amber listed bird species recorded at Panshanger Airfield during breeding bird surveys 2014, and their recent status within the county.**

Species	Scientific Name	Conservation Status	On-site Breeding Status	Breeding Status in Hertfordshire <sup>†</sup>
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	Amber list	Non-breeder	Abundant all year, now breeding.
Bullfinch	<i>Pyrrhula pyrrhula</i>	NERC, Amber list	Possible	Common and widespread but declining resident.
Dunnoek	<i>Prunella modularis</i>	NERC, Amber list	Confirmed	Abundant resident and autumn visitor.
House sparrow	<i>Passer domesticus</i>	NERC, Red list	Confirmed	Abundant and widespread but declining resident.
Kestrel	<i>Falco tinnunculus</i>	Amber list	Non-breeder	Common widely distributed breeding species.
Lesser Black-backed Gull	<i>Larus fuscus</i>	Amber list	Non-breeder	Common winter visitor and passage migrant, breeding since 2009.
Linnet	<i>Carduelis cannabina</i>	NERC, Red list	Probable	Common and widespread but declining resident, winter visitor and passage migrant.
Mallard	<i>Anas platyrhynchos</i>	Amber list	Non-breeder	Abundant resident breeding species and winter visitor.
Meadow pipit	<i>Anthus pratensis</i>	Amber list	Possible	Resident and common passage migrant and winter visitor.
Mistle thrush	<i>Turdus viscivorus</i>	Red list	Non-breeder	Common resident.
Red Kite	<i>Milvus milvus</i>	WCA Sch 1	Non-breeder	Increasing resident breeding species.
Reed Bunting	<i>Emberiza schoeniclus</i>	NERC, Amber list	Non-breeder	Widespread and locally common but declining resident and passage migrant.
Skylark	<i>Alauda arvensis</i>	Red list NERC S41	Probable	Common resident that has recently declined.
Song Thrush	<i>Turdus philomelos</i>	NERC, Red list	Probable	Common but declining resident.
Starling	<i>Sturnus vulgaris</i>	NERC, Red list	Confirmed	Abundant and widespread but declining breeding resident.
Wigeon	<i>Anas penelope</i>	Amber list	Non-breeder	Common winter visitor and passage migrant.
Yellowhammer	<i>Emberiza citrinella</i>	NERC, Red list	Probable	Common and widespread but declining resident.

<sup>†</sup> Taken from the Hertfordshire annual bird report 2012<sup>4</sup>, published in 2014.

The terms used to define the species' abundance in the county are:

Very Rare

- 1-10 records in the last 50 years

Rare

- Occurs less than annually with 11-50 records in the last 50 years

<sup>4</sup> Hertfordshire Natural History Society (HNHS), (2014). The Hertfordshire Bird Report. 46.

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Scarce	-One or two records annually, or restricted to specific habitats with 51-100 records in the last 50 years
Occasional/Uncommon	- Occurs annually in small numbers
Frequent	- Often occurs in small numbers in suitable habitat
Common	- Occurs regularly and widely distributed in suitable habitat in moderate numbers
Abundant	- Occurs in considerable numbers in suitable habitats and season

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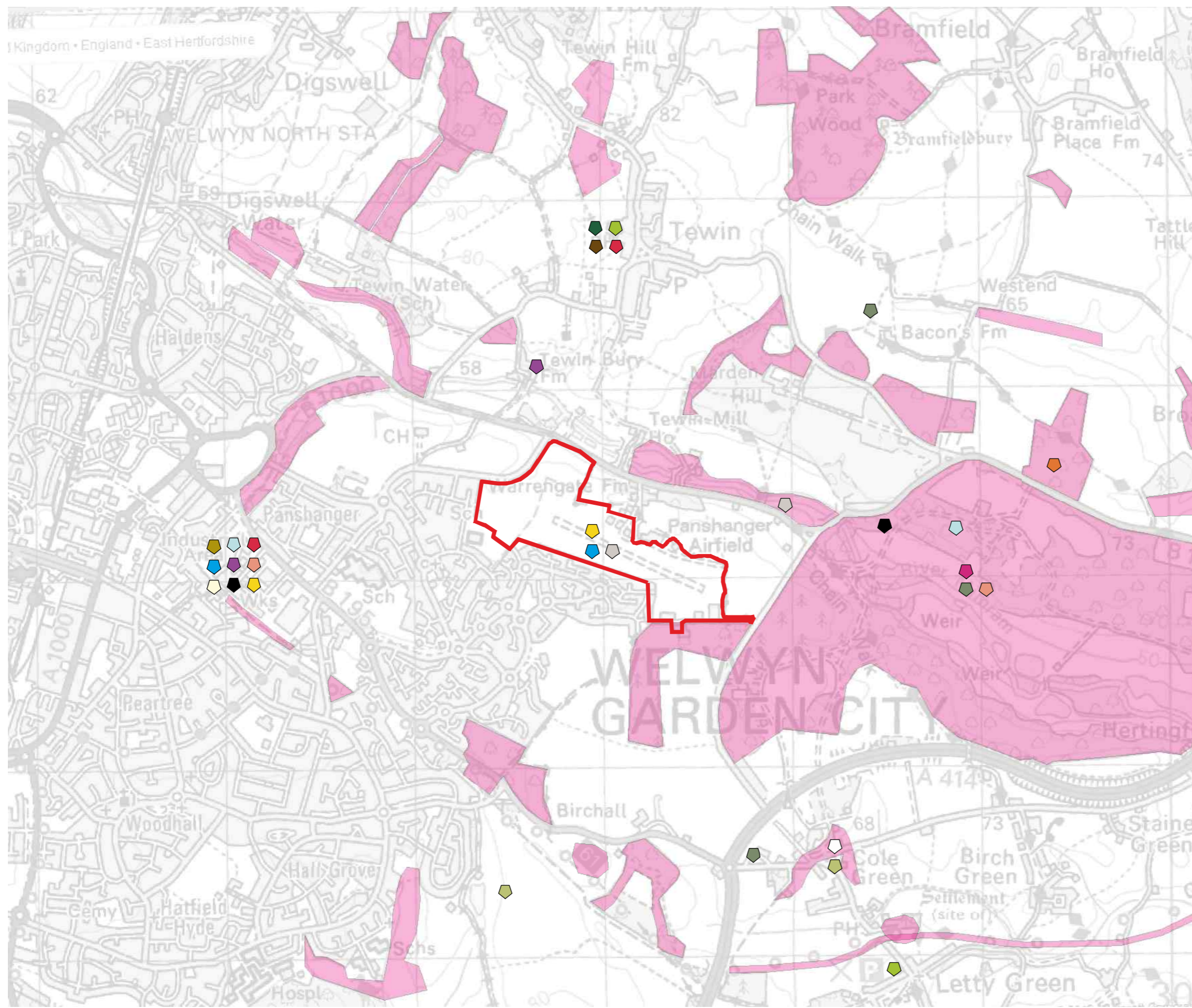
## Appendix A

## Full Breeding Bird Survey Result

Species	Scientific Name	Survey 1 31.03.14	Survey 2 21.05.14	Survey 3 16.06.14	Conservation Status	Breeding Status on Site
Blackbird	<i>Turdus merula</i>	16	12	14	Green list	Probable
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	0	0	1	Amber list	Non-breeder
Blue tit	<i>Cyanistes caeruleus</i>	28	20 + 2 families	18 + 1 family	Green list	Confirmed
Blackcap	<i>Sylvia atricapilla</i>	2	8	1	Green list	Probable
Bulfinch	<i>Pyrrhula pyrrhula</i>	2	0	0	Amber list NERC	Probable
Canada Goose	<i>Branta canadensis</i>	0	2	0	Not listed	Non-breeder
Carrion crow	<i>Corvus corone</i>	12	19	8	Green list	Confirmed
Chaffinch	<i>Fringilla coelebs</i>	27	24	10	Green list	Probable
Chiffchaff	<i>Phylloscopus collybita</i>	3	1	0	Green list	Possible
Collared dove	<i>Streptopelia decaocto</i>	4	4	17	Green list	Possible
Dunnock	<i>Prunella modularis</i>	16	17	13 + 1 family	Amber list NERC	Confirmed
Goldfinch	<i>Carduelis carduelis</i>	11	3	8	Green list	Probable
Great spotted woodpecker	<i>Dendrocopos major</i>	3	1 + nest	1	Green list	Confirmed
Great tit	<i>Parus major</i>	20	6 + 2 families	10	Green list	Confirmed
Green woodpecker	<i>Picus viridis</i>	0	0	2	Green list	Possible
Greenfinch	<i>Carduelis chloris</i>	0	5	5	Green list	Possible
House sparrow	<i>Passer domesticus</i>	3 col	2 + 5 col	4 col	Red list NERC	Probable
Jackdaw	<i>Corvus monedula</i>	1	23	8	Green list	Confirmed
Jay	<i>Garrulus glandarius</i>	5	0	1	Green list	Possible
Kestrel	<i>Falco tinnunculus</i>	0	0	1	Amber list	Non-breeder
Lesser Black-backed Gull	<i>Larus fuscus</i>	1	0	1	Amber list	Non-breeder
Lesser Whitethroat	<i>Sylvia curruca</i>	0	1	2	Green list	Possible
Linnet	<i>Carduelis cannabina</i>	12	16	14	Red list NERC	Probable
Long-tailed Tit	<i>Aegithalos caudatus</i>	1	1 family	1 family	Green list	Confirmed
Mallard	<i>Anas platyrhynchos</i>	0	2	0	Amber list	Non-breeder
Magpie	<i>Pica pica</i>	18	18	27	Green list	Probable
Meadow pipit	<i>Anthus pratensis</i>	0	0	1	Amber list	Possible
Mistle thrush	<i>Turdus viscivorus</i>	0	1	0	Red list	Non-breeder
Nuthatch	<i>Sitta europaea</i>	2	0	0	Green list	Possible
Pheasant	<i>Phasianus colchicus</i>	7	2	1	Not listed	Non-breeder

Species	Scientific Name	Survey 1 31.03.14	Survey 2 21.05.14	Survey 3 16.06.14	Conservation Status	Breeding Status on Site
Pied wagtail	<i>Motacilla alba</i>	4	0	0	Green list	Possible
Red Kite	<i>Milvus milvus</i>	1	0	0	Schedule 1	Non-breeder
Reed Bunting	<i>Emberiza schoeniclus</i>	0	1	0	Amber NERC	Non-breeder
Robin	<i>Erithacus rubecula</i>	17	17	11	Green list	Probable
Rook	<i>Corvus frugilegus</i>	0	0	3	Green list	Non-breeder
Skylark	<i>Alauda arvensis</i>	7	7	5	Red list NERC	Probable
Song thrush	<i>Turdus philomelos</i>	10	3	1	Red list NERC	Probable
Sparrowhawk	<i>Accipiter nisus</i>	0	0	1	Green list	Non-breeder
Starling	<i>Sturnus vulgaris</i>	25	52	52	Red list NERC	Confirmed
Swallow	<i>Hirundo rustica</i>	0	2	2	Green list	Non-breeder
Woodpigeon	<i>Columba palumbus</i>	89	66	46	Green list	Confirmed
Wren	<i>Troglodytes troglodytes</i>	9	10	11	Green list	Probable
Wigeon	<i>Anas penelope</i>	1	0	0	Amber list	Non-breeder
Whitethroat	<i>Sylvia communis</i>	0	7	4	Green list	Probable
Yellowhammer	<i>Emberiza citronella</i>	2	0	1	Red list NERC	Probable
<b>Total Species Recorded</b>		31	31	35	45	
<b>Total Breeding Species (Confirmed + Probable (Possible))</b>					<b>22 (10)</b>	

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- Boundary
- Non-statutory Sites**
- Local Wildlife Sites (LWS)
- Notable Species**
- Barn owl
- Brambling
- Bullfinch
- Cuckoo
- Kingfisher
- Linnet
- Corn bunting
- Hobby
- Grey partridge
- Lesser spotted woodpecker
- Marsh tit
- Northern lapwing
- Red kite
- Redwing
- Song thrush
- Spotted flycatcher
- Yellow wagtail
- Yellowhammer

 Mariposa Developments Ltd  
 Panshanger Airfield, Hertfordshire  
 BIRD CONSULTATION PLAN

NTS @ A3      BL/DJC      27.01.16

**Figure 1**      **5705-E-01A**

