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JAMES BLAKE

A S S O C I A T E S

Updated Breeding Bird Survey

of

Land at Buntingford West, Hertfordshire

on behalf of:

Vistry Group Ltd.

June 2023

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34-52 Out Westgate, Bury St. Edmunds, Suffolk IP33 3PA
tel: **01284 335797** email: jamesblake@jba-landmarc.com

Chairman: James Blake BA (Hons) Dip LA (Hons) CMLI

Company Secretary: Louise Blake BSc PGCE

Directors: Elzbieta Zebrowska MSc Eng LArch MScEnvSc CMLI

Associate Directors: Vivienne Jackson : Marie Lowe CIMA Cert BA : Paulina Blasiak MSc EngLA CMLI

Abby Stallwood BSc (Hons) PG Dip LM CMLI : Samantha Rigg BSc (Hons) ACIEEM : Kate Berry Assoc CIPD

www.jba-landmarc.com

Registration no. 08169866 VAT no. 512412791

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Disclaimer

James Blake Associates Ltd have made every effort to meet the client's brief. However, no survey ensures complete and absolute assessment of the changeable natural environment. The findings in this report were based on evidence from thorough survey: It is important to remember that evidence can be limited, hard to detect or concealed by site use and disturbance. When it is stated that no evidence was found or was evident at that point in time, it does not mean that species are not present or could not be present at a later date: The survey was required because habitats are suitable for a given protected species, and such species could colonise areas following completion of the survey.

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EXECUTIVE SUMMARY

Updated breeding bird surveys were carried out on land at Buntingford West, Hertfordshire, on the 28th March, 25th April, 17th May and 21st June 2023.

A total of forty-seven bird species were recorded on or close to the site. These included eight Species of Principal Importance (SPI) in England, all of which are relatively common, widespread (albeit declining species) in Hertfordshire. In terms of the Birds of Conservation Concern (BoCC) categorisation; nine BoCC Red Listed species and fourteen Amber Listed species were recorded using the site. A total of three Schedule 1 species were also recorded utilising the site.

14 species were confirmed breeding on site and 5 species were considered 'likely' breeding, with 11 species 'possibly' breeding. A total of 17 species were non-breeding species either passing over the site, passage migrants or wintering birds. The bird species noted using the site and in close proximity to the site, are generally common and widespread, though several farmland species using the site are now rather scarce and declining.

Majority of the habitats on site are considered 'key' for a number of bird species, including; the arable fields, mature boundary trees, scrub, wet and dry ditches, hedgerows and hedgerow margins. These habitats should be retained and enhanced by the development where possible.

The three arable fields that are separated by inter-connecting hedgerows are important for a small population of skylark (*Alauda arvensis*). As all of the arable fields cannot be retained in their present form, suitable mitigation will need to be provided off-site for these skylarks in the form of nesting plots.

Dunnock (*Prunella modularis*), house sparrow (*Passer domesticus*), starling (*Sturnus vulgaris*), woodpigeon (*Columba palumbus*) and wren (*Troglodytes troglodytes*) were recorded in good numbers on or close to the site.

Where possible for any infrastructure within the development, such as overhead cables, new dwellings etc, it is recommended they be designed, created, and managed to avoid impacts on the birds such as collision, loss of foraging and breeding habitats.

The site as a whole, would benefit from a variety of enhancements including:

- Re-planting or plugging of hedgerows with appropriate native species;
- increasing scrub cover along field margins, hedgerows and in corners where there is existing scrub cover;
- increasing native species diversity using appropriate seed mixes along the field margins or within any new managed grassland areas for seed-eating species such as chaffinch (*Fringilla coelebs*), goldfinch (*Carduelis carduelis*), greenfinch (*Carduelis chloris*), linnet (*Carduelis cannabina* and reed bunting (*Emberiza schoeniclus*);
- bird boxes on retained trees or standalone structures for target species such as starling (*Sturnus vulgaris*), stock dove (*Columba oenas*), as well as common bird species such as blue tit (*Cyanistes caeruleus*) and great tit (*Parus major*); and
- bird nesting cups and bricks on new residential dwellings should also be implemented for house martin (*Delichon urbicum*) and swift (*Apus apus*).

Any construction, vegetation clearance/management should be undertaken outside the breeding bird season. Nesting bird season is deemed to be March to September, weather dependant.

If recommendations outlined in this report, including precautionary measures, are followed, it is considered that impacts to nesting and/or foraging birds would be low.

1 INTRODUCTION

Background to the study

- 1.1 James Blake Associates Ltd. (JBA) was commissioned by Moulton Walker Chartered Surveyors, on behalf of Vistry Group Ltd, to undertake updated breeding bird surveys on land at Buntingford West, Hertfordshire (Ordnance Survey National Grid Reference TL 358 288, taken from the centre of the site).
- 1.2 Nesting birds are protected under the Wildlife and Countryside Act (1981, as amended), and some bird species are also priority species under Section 41 of The Natural Environment and Rural Communities (NERC) Act (2006). All protected and priority species are material considerations for individual planning decisions under the National Planning Policy Framework (NPPF) 2021, which places responsibility on Local Planning Authorities to aim to conserve and enhance biodiversity and to encourage biodiversity in and around developments. Species of Principal Importance (SPI) in England, listed under Section 41 of the NERC Act, are a material consideration for planning decisions.
- 1.3 Birds of Conservation Concern (BoCC) are split into three criteria;

Red Listed species: These are species of high national conservation concern. Species are included on this list if they meet one or more of the following criteria:

- Globally threatened according to the International Union for Conservation of Nature (IUCN) criteria;
- Historical population decline in UK during 1800-1995;
- Rapid (>50%) decline in UK breeding or non-breeding population over last 25 years;
- Rapid (>50%) contraction of UK breeding range over last 25 years.

Amber Listed species: These are species of medium national conservation concern. Species are included on this list if they meet one or more of the following criteria:

- Historical population decline during 1800-1995, but now recovering with population size having more than doubled over the last 25 years;
- Moderate (25-49%) decline in UK breeding or non-breeding population or breeding range over the last 25 years;
- Species of European Conservation Concern;
- Between only one and 300 breeding pairs, or one and 900 individuals, in the UK;
- >50% of the UK breeding or non-breeding population in ten or fewer sites;
- >20% of the European breeding population in the UK;
- >20% of the North-West European (wildfowl), East Atlantic Flyway (waders) or European (others) non-breeding populations in the UK.

Green Listed species: All regularly occurring native species that do not qualify under any of the Red or Amber criteria are Green listed. The Green list also includes those species listed as recovering from Historical Decline in the last review that have continued to recover and do not qualify under any of the other criteria.

Previous Surveys

- 1.4 Initial breeding bird surveys were carried out at Buntingford West, Hertfordshire on 24th March, 22nd April, 27th May and 23rd June 2020.
- 1.5 Forty-nine bird species were recorded on or close to the site during the breeding bird surveys. Birds of Conservation Concern (BoCC) bird species using the site included nine Red Listed species, sixteen Amber Listed species and twenty-four Green Listed species. A total of eight Species of Principal Importance (SPI) in England, all of which are relatively common and widespread species in Hertfordshire, were also recorded using the site.

Geographical scope

- 1.6 The site is approximately 20 hectares in size and is located to the west of Buntingford and east of the A10. Residential housing and gardens are adjacent to the north and east boundaries of the site. The busy A10 is adjacent to the

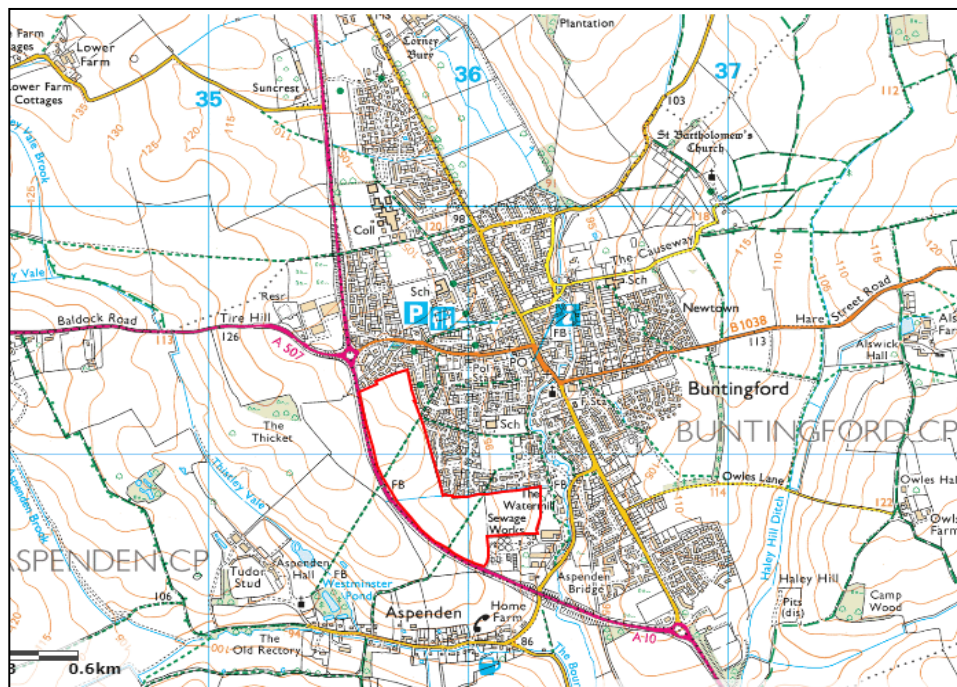
western and southern boundaries of the site and a sewage treatment works is adjacent to the site in the south-east corner. The wider landscape includes the town of Buntingford, residential and commercial buildings and arable land (see Figure 1 below).

- 1.7 The majority of the site comprised of a small variety of arable crops throughout the surveying period. Other habitats present on site are scrub, hedgerows and hedgerow margins, wet and dry ditches, mature boundary trees and semi-improved grassland.

Development proposal

- 1.8 The proposed development will include; 350 dwellings, with up to 4,400 sqm of commercial and services floorspace (use class e and b8), and up to 500 sqm of retail floorspace (use classes e) and other associated works including drainage, access into the site from the A10 and lynes rise (but not access within the site), allotments, public open space and landscaping.

Figure 1: Site location



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Aims and objectives

1.9 The aim of the survey was to;

- determine if significant bird species or population sizes were using the site for nesting or foraging at the time of the survey;
- determine the likely risk of impact on birds and local bird conservation from the proposed development; and
- recommend precautionary measures, compensation of habitats or mitigation to prevent harm to birds, if necessary.

2 METHODOLOGY

Methods

- 2.1 Surveys were conducted in optimal weather conditions (dry, with little/moderate wind) and during the peak bird breeding season (March to June). The duration of each survey was approximately two hours.
- 2.2 Surveys were undertaken on 28th March, 25th April, 17th May and 21st June 2023, within three hours of dawn, when territorial behaviour is usually at its peak.
- 2.3 Surveys were carried out by Christopher Bridge BSc (Hons) (Natural England Barn Owl Class Licence CL29).
- 2.4 The survey was based on a registration mapping methodology adapted from the British Trust for Ornithology (BTO) Breeding Bird Survey: during each visit, all birds seen or heard were recorded on a transect along with any significant behaviour, particularly regarding breeding activity e.g. territorial singing, display, carrying food or nesting material, active nests etc.

Constraints

- 2.5 Road noise from the A10 was considered to be a constraint to audible identification within boundary hedgerows and trees. However, visual identification was always possible on all surveys.

3 RESULTS

Survey results

- 3.1 Forty-seven bird species were recorded on or close to the site, of which all used habitats within the site boundary (see Appendix A for transect maps showing bird activity).
- 3.2 The table below shows all of the species that were observed, the date(s) of observation and their protection.

Table 1: Summary of survey results

Species	BTO code	Herts BAP	Schedule 1	NERC SPI	BoCC	Survey dates (2023) & species observed			
						28.03	25.04	17.05	21.06
Blackcap <i>Sylvia atricapilla</i>	BC						✓	✓	✓
Blackbird <i>Turdus merula</i>	B.					✓	✓	✓	✓
Black-headed gull <i>Chroicocephalus ridibundus</i>	BH				Amber	✓			
Blue tit <i>Cyanistes caeruleus</i>	BT					✓	✓	✓	✓
Buzzard <i>Buteo buteo</i>	BZ						✓		✓
Canada goose <i>Anser canadensis</i>	CG						✓	✓	
Carrion crow <i>Corvus corone</i>	C.					✓	✓	✓	✓
Chaffinch <i>Fringilla coelebs</i>	CH					✓	✓	✓	
Chiffchaff <i>Phylloscopus colybita</i>	CC					✓			✓
Coal tit <i>Periparus ater</i>	CT					✓			✓
Collared dove <i>Streptopelia decaocto</i>	CD					✓	✓		✓
Dunnock <i>Prunella modularis</i>	D.			✓	Amber	✓	✓	✓	✓
Feral pigeon <i>Columba livia</i>	FP					✓	✓	✓	✓
Fieldfare <i>Turdus pilaris</i>	FF		✓		Red	✓			
Goldcrest <i>Regulus regulus</i>	GC						✓		
Goldfinch <i>Carduelis carduelis</i>	GO					✓	✓	✓	✓
Great black-backed gull <i>Larus marinus</i>	GB				Amber		✓		
Great tit <i>Parus major</i>	GT					✓	✓	✓	✓
Greenfinch <i>Carduelis chloris</i>	GR				Red	✓	✓	✓	✓
Great spotted woodpecker <i>Dendrocopos major</i>	GS								✓
Grey wagtail <i>Motacilla cinerea</i>	GL				Amber		✓	✓	✓

Species	BTO code	Herts BAP	Schedule 1	NERC SPI	BoCC	Survey dates (2020) & species observed			
						28.03	25.04	17.05	21.06
House martin <i>Delichon urbicum</i>	HM				Red				✓
House sparrow <i>Passer domesticus</i>	HS			✓	Red	✓	✓	✓	✓
Jackdaw <i>Corvus monedula</i>	JD						✓	✓	✓
Lesser black-backed gull <i>Larus fuscus</i>	LB				Amber	✓	✓		✓
Lesser whitethroat <i>Sylvia curruca</i>	LW							✓	✓
Little egret <i>Egretta garzetta</i>	EG						✓		
Linnet <i>Carduelis cannabina</i>	LI			✓	Red	✓	✓	✓	
Long-tailed tit <i>Aegithalos caudatus</i>	LT						✓	✓	
Magpie <i>Pica pica</i>	MG					✓	✓	✓	✓
Mallard <i>Anas platyrhynchos</i>	MA				Amber	✓	✓	✓	✓
Meadow pipit <i>Anthus pratensis</i>	MP				Amber	✓			
Pied wagtail <i>Motacilla alba</i>	PW					✓	✓	✓	✓
Red Kite <i>Milvus milvus</i>	ET		✓				✓		✓
Redwing <i>Turdus iliacus</i>	RE		✓		Amber	✓			
Reed bunting <i>Emberiza schoeniclus</i>	RB			✓	Amber	✓	✓		
Robin <i>Erithacus rubecula</i>	R.					✓	✓	✓	✓
Rook <i>Corvus frugilegus</i>	RO				Amber	✓	✓	✓	✓
Skylark <i>Alauda arvensis</i>	S.			✓	Red	✓	✓	✓	
Song thrush <i>Turdus philomelos</i>	ST	✓		✓	Amber	✓	✓		✓
Stock dove <i>Columba oenas</i>	SD				Amber	✓	✓	✓	✓
Starling <i>Sturnus vulgaris</i>	SG			✓	Red	✓	✓	✓	✓
Swallow <i>Hirundo rustica</i>	SL						✓		
Swift <i>Apus apus</i>	SI				Red				✓
Woodpigeon <i>Columba palumbus</i>	WP				Amber	✓	✓	✓	✓
Wren <i>Troglodytes troglodytes</i>	WR				Amber	✓	✓	✓	✓
Yellow wagtail <i>Motacilla flava</i>	YW			✓	Red			✓	

NERC SPI = Species of Principal Importance in England under Section 41 of the NERC Act (2006)

Herts BAP = Local Biodiversity Action Plan

BoCC = Birds of Conservation Concern

Schedule 1 = protected (while breeding) under Schedule 1 of the Wildlife and Countryside Act 1981

Black text: Observed using habitats within the site boundary

Weather conditions

- 3.3 The breeding bird survey visit dates and the weather conditions that were recorded during these surveys are provided in Table 2.

Table 2: Summary of weather conditions

Visit	Date (2023)	Weather conditions
1	28 th March	5-6°C, 100% cloud cover and Beaufort 0 to 1
2	25 th April	5°C, <5% cloud cover and Beaufort 0 to 1
3	17 th May	7.5-11°C, 5% cloud cover and Beaufort 0 to 1
4	21 st June	15°C, 55% cloud cover and Beaufort 0 to 1

Overview of birds observed during the surveys

- 3.4 Species of Principal Importance (SPI)

Eight priority species were recorded using the site as follows:

- **Dunnock** (*Prunella modularis*) was recorded during all of the four survey visits, singing and foraging within immature trees, scrub and hedgerows throughout the site. Dunnock is a BoCC Amber listed species, as well as an SPI, because UK populations declined significantly during the 1970s and 1980s, although are now more stable. This species is confirmed breeding at the site, due to the presence of audible and visual sightings of juvenile birds recorded on the site. The site provides a variety of potential breeding habitat including hedgerows, trees, scrub and vegetated ditches. Good quality breeding habitat, such as hedgerows, low thick scrub and bramble (*Rubus fruticosus spp.*) patches, is present on the site.
- **House sparrow** (*Passer domesticus*) was recorded during all four survey visits foraging and commuting along boundary and within inter-connecting hedgerows. Frequent small colonies were noted on the length of the eastern boundary adjacent to residential dwellings. House sparrows are a BoCC Red listed species, as well as an SPI, due to rapid declines in abundance over the last 25 years. The house sparrow remains widespread and common throughout England and locally within

Hertfordshire; it was the most recorded bird during the Royal Society for the Protection of Birds (RSPB) 'Big Garden Birdwatch' in 2022 and 2023. This species uses the proposed development site boundaries for foraging only and in good numbers. There is increased availability of preferred nesting opportunities on the boundaries of the site in residential dwellings.

- **Linnet** (*Carduelis cannabina*) was recorded during three of the four survey visits in suitable nesting habitat along boundary hedgerows, scrub and immature trees. Breeding was confirmed along the eastern boundary. Linnet is a BoCC Red listed species, as well as an SPI, mainly due to an overall 23% decline in the English population between 1995 and 2018 (72% since 1967), largely due to habitat impoverishment due to agricultural intensification. The scrub present on site offers nesting opportunities for this species, and the semi-improved grassland and hedgerows also offer potential food resources. Those food resources include common arable plants such as dandelions (*Taraxacum spp.*) in the field margins and hawthorn (*Crataegus monogyna*) along the field boundaries.
- **Reed bunting** (*Emberiza schoeniclus*) was recorded on 28th March and 25th April only, with single individuals using hedgerow, willow and bramble scrub along the northern boundary. As reed buntings were recorded on the site during the early spring with only individuals observed, this indicates that there is a potential for breeding within and/or close proximity to the site. Reed bunting is a BoCC Amber listed species, as well as an SPI in England and Hertfordshire, with a long-term national trend of a 48% decline between 1968 and 1999. This species is less common in dry habitats such as intensive arable, but the site does have some habitats suitable for this species such as wet ditches, willow (*Salix spp.*) and bramble scrub.
- **Skylark** (*Alauda arvensis*) was seen and heard territorial singing above the arable fields within the site boundary during three of the four survey visits. An estimated two individual singing males were observed on all visits, indicating that more than one territory was held within the local

area. This species is a BoCC Red listed species, as well as an SPI, due to significant population declines over the past 25 years, with a rapid decline from the mid-1970s until the mid-1980s. It is thought that the skylark has declined due to changes in agricultural practices and a reduction in suitable nesting habitat. Skylarks are still showing a slow decline in abundance, despite being widespread throughout the UK and in Hertfordshire. Skylarks were confirmed breeding on site, as territory displays were observed within the site boundary on all three of the four site visits. Therefore, it is considered likely that skylarks will be impacted by the proposals by the direct loss of nesting habitat.

- **Song thrush** (*Turdus philomelos*) was recorded singing from perches and foraging within the site boundary in scrub and hedgerows during three of the four survey visits. Song thrush is a BoCC Amber listed species, as well as an SPI and a Hertfordshire BAP species due to significant population declines. Between 1970 and 1995, song thrushes declined by approximately 50%, which was more pronounced on farmland, where populations decreased by approximately 70%. Song thrushes are widespread within the UK and Hertfordshire and are showing a general increase, although population levels remain relatively low. The scrub on site and hedgerows provides optimal nesting opportunities. This species was likely breeding on site due to observing territorial singing for the majority of the breeding season.
- **Starling** (*Sturnus vulgaris*) was recorded during all four survey visits, predominantly using habitats within the site boundary and on boundary residential buildings. Starlings are a BoCC Red listed species, as well as an SPI in England and Hertfordshire, due to long term declines in the number of breeding pairs in Britain, reasons for which are under research. Starlings remain widespread within Britain and Hertfordshire and this species was the third most numerous bird recorded during the RSPB 'Big Garden Birdwatch' in 2021. Behaviour displayed during the survey visits suggested that this species was using the site primarily for foraging, but also likely breeding, as the site itself provided optimal nesting opportunities within boundary mature trees and deadwood.

- **Yellow wagtail** (*Motacilla flava*) was recorded on one of the four survey visits, 17th May. This individual was seen calling over the site only and deemed to be a passage migrant. Yellow wagtail is an SPI and a BoCC Red listed species. This species has declined by 70% in England between 1967 and 2018.

3.5 BoCC Red Listed species

Nine Red listed species were recorded during the survey visits, all of which used habitats within the site boundary or were observed flying over the site; five of which are also SPI: house sparrow, linnet, skylark, yellow wagtail and starling (detailed in section 3.4).

The remaining four Red listed species (not SPI) recorded during the surveys were fieldfare (*Turdus pilaris*), greenfinch (*Carduelis chloris*), house martin and swift.

- **Fieldfare** was recorded on 28th March only with a few sightings of individuals. Fieldfare is a BoCC Red listed species and a Schedule 1 breeding species within the United Kingdom.
- **Greenfinch** was recorded during all four survey visits along the boundary hedgerows, scrub and trees, as well as within inter-sectioning hedgerows. Greenfinch is now a BoCC Red listed species, due to a category shift in the 'BoCC5' (2021). Greenfinch populations declined during the late 1970s and early 1980s but increased dramatically during the 1990s. A recent decline in numbers has been linked to an outbreak of 'trichomonosis', a parasite-induced disease that prevents the birds from feeding properly. Greenfinch has declined by 64% in the last 23 years and shows no sign of slowing down, according to the 2019 Breeding Bird Survey by the RSPB.
- **House martin** was recorded during one of the four survey visits, flying over the site only around the sewage works on the eastern boundary. House martin is now a BoCC Red listed species, due to a category shift in the 'BoCC5' (2021). House martin are in decline due to several reasons; limited aerial insect availability during the breeding season,

adverse effects of weather conditions during their migration periods and restricted nesting sites, i.e. new developments. The UK population has declined by 16% between 2001 and 2011, however, within the UK where long-term monitoring at sites in England have shown a decline of 65% between 1967 and 2011.

- **Swift** were recorded during the survey visit on 21st June only, flying and foraging over the boundaries, residential buildings and high over the site. Swift has declined nationally with a 53% decline between 1995 and 2016. A decline over the last 20 years due to the lack of nesting sites in residential buildings and gaps in-between tiles/facias and a decrease in flying insects. It is considered unlikely that swift will be nesting within the site boundary due to unsuitable nesting opportunities. Swifts are proposed to be nesting within dwellings surrounding the proposed development.

3.6 BoCC Amber Listed species

Fourteen BoCC Amber listed species were recorded using habitats within the site boundary or observed flying over the site. Dunnock, song thrush and reed bunting are SPI and are detailed above in Section 3.4. The remaining eleven Amber listed species are outlined below;

- **Black-headed gull** (*Chroicocephalus ridibundus*), **lesser black-backed gull** (*Larus fuscus*) and **great black-backed gull** (*Larus marinus*) were recorded flying over the site. These three species are considered unlikely to be breeding at the site due to the lack of suitable nesting sites and would likely use the fields on site and nearby arable fields and the adjacent sewage works for foraging only. The site itself does not provide suitable breeding habitat for any of the three gull species. Black-headed gulls prefer saltmarsh, shingle or vegetated islands on gravel pits, scrapes or coastal lagoons, lesser black-backed and great black-backed gulls prefer cliffs, shingle beaches or buildings (usually with a flat roof), none of which are within the site boundary. The local gull population is unlikely to be adversely affected by the development.

- **Grey wagtail** (*Motacilla cinerea*) was recorded during three of the four survey visits, calling, singing and foraging around the main entrance to the site on the eastern and southern boundary around the sewage works. There is a lack of suitable breeding habitat on site, therefore it is deemed that grey wagtail were using the site for foraging only and actually breeding within the sewage works or in nearby commercial buildings. The local grey wagtail population is unlikely to be adversely affected by the development.
- **Mallard** (*Anas platyrhynchos*) was recorded on all four survey visits with pairs observed flying through the site regularly and small groups using a small wet area for bathing and foraging near the south east corner of the site. The nearby River Rib to the east of the site and one of several small lakes or ponds to the west of the site are also deemed likely for the regular occurrence of records. There is a lack of suitable breeding habitat on site, therefore, the local population of mallard is unlikely to be adversely affected by the development.
- **Meadow pipit** (*Anthus pratensis*) is a winter/spring migrant and is resident in the UK. Sightings of meadow pipit were of a calling individual foraging on land within the site. The local population of meadow pipit is unlikely to be adversely affected by the development.
- **Redwing** (*Turdus iliacus*) is a winter migrant and was observed in small numbers on 28th March only, foraging on land within the site. This species is also a Schedule 1 species within the United Kingdom, albeit in very small numbers and confined to the mountainous regions of Scotland. This species will not be breeding within the development site and was deemed to be passing through, feeding up on migration back to Scandinavia.
- **Rook** (*Corvus frugilegus*) was recorded during all four survey visits, calling and foraging on land within the site. Mature trees around the site boundaries, particularly the coniferous woodland along the far eastern boundary (adjacent the commercial buildings) offer optimal breeding habitat for rook. Arable fields and semi-improved grassland areas provide suitable foraging habitat; therefore, it is deemed possible that this

species could nest on the site boundary. Large numbers of youngsters were observed foraging on land within the site boundary.

- **Stock dove** (*Columba oenas*) were recorded on all four survey visits, flying over the site and foraging on land within and generally in pairs. The local stock dove population is unlikely to be adversely affected by the development.
- **Woodpigeon** (*Columba palumbus*) and **wren** (*Troglodytes troglodytes*) were both recorded during all survey visits, calling, singing and foraging on land within the site. Both species prefer hedgerows, immature trees and scrub in order to breed. The local woodpigeon and wren population is unlikely to be adversely affected by development.

3.7 Local Biodiversity Action Plan (LBAP) Species

During the four breeding bird survey visits, one LBAP species was recorded: song thrush, which is detailed in Section 3.4.

3.8 Schedule 1 Species (WCA 1981)

- **Fieldfare** and **Redwing** are discussed above in Sections 3.5 and 3.6, respectively.
- **Red kite** (*Milvus milvus*) was recorded flying over the site on two of the four survey visits. Formerly a very rare species in the 1980's when it was designated a Schedule 1 species, this species has been successfully re-introduced into England and is now breeding widely within England, including Hertfordshire and neighbouring counties. The individuals observed during the surveys approached from the west of the western boundary and were also observed on land within and calling from mature oak trees at the boundaries of the site. These individuals were also observed foraging for carrion along the busy A10 and for carrion on the site such as dead small mammals, e.g. rabbit (*Oryctolagus cuniculus*). It is unlikely that this species is nesting on site, as this species usually nest within more densely wooded areas, but they may be nesting in nearby smaller woodlands surrounding the site. The local population of this species is unlikely to be adversely affected by development, and in fact

residential developments bring more scavenging opportunities for carrion, food waste or supplementary feeding by residents.

- 3.9 All birds recorded on the site itself were observed to be using all habitats found within the site boundary; mostly boundary vegetation, including trees, hedgerows, hedgerows margins, scrub, and semi-improved grassland strips on the site. The arable fields also contained high amounts of bird activity, primarily foraging. The areas of highest activity on site were the hedgerows and hedgerow margins, as well as the semi-improved grassland strips; areas of scrub along the field edges were also highly favourable. The arable fields were utilised by breeding skylark and foraging rook, stock dove and woodpigeon. Warbler species such as blackcap, chiffchaff and lesser whitethroat utilised the scrub and margins for foraging and varied breeding.
- 3.10 A large proportion of the recorded activity was singing birds establishing territories. Other breeding activity, such as display and carrying food and nesting material was also noted, suggesting that a number of species were using the proposed development site for breeding. Several green listed species such as blue tit, great tit, blackbird, robin, long-tailed tit and goldfinch were seen to have produced young all breeding within the hedgerows and scrub.
- 3.11 Several Amber listed species such as dunnock, song thrush, woodpigeon and wren showed signs of confirmed or likely breeding, utilising the hedgerows, scrub and boundary trees.
- 3.12 Farmland assemblage birds such as linnet and skylark are confirmed to have bred on the site. Both are SPI, BoCC Red listed species.
- 3.13 House sparrow and house martin, Red and Amber listed species, respectively, house sparrow were breeding in adjacent residential buildings on the boundaries of the site and house martin foraging and likely breeding on residential properties nearest the sewage works, although not within the site itself.

Table 3: Likelihood of species breeding on site:

Species	Breeding status on site			
	Confirmed	Likely	Possible	Unlikely
Blackcap	✓			
Blackbird	✓			

Species	Breeding status on site			
	Confirmed	Likely	Possible	Unlikely
Blue tit	✓			
Buzzard				✓
Canada goose				✓
Carrion crow	✓			
Chaffinch		✓		
Chiffchaff		✓		
Coal tit			✓	
Collared dove			✓	
Dunnock	✓			
Feral pigeon				✓
Fieldfare				✓
Goldcrest			✓	
Goldfinch	✓			
Great tit	✓			
Greenfinch		✓		
Great spotted woodpecker			✓	
Grey wagtail				✓
Gull species (all)				✓
House martin				✓
House sparrow				✓
Jackdaw			✓	
Lesser whitethroat			✓	
Linnet	✓			
Little egret				✓
Long-tailed tit	✓			
Magpie	✓			
Mallard			✓	
Meadow pipit				✓
Pied wagtail				✓
Red kite				✓
Redwing				✓
Reed bunting			✓	
Robin	✓			
Rook			✓	
Skylark	✓			
Song thrush		✓		
Stock dove			✓	
Starling		✓		

Species	Breeding status on site			
	Confirmed	Likely	Possible	Unlikely
Swallow				✓
Swift				✓
Woodpigeon	✓			
Wren	✓			
Yellow wagtail				✓

4 EVALUATION, ENHANCEMENTS AND MITIGATION

- 4.1 At the proposed development site, the suggested retention and enhancement of existing habitats (scrub, hedgerows, boundary trees and semi-improved grassland strips) are likely to increase the foraging and nesting habitat on the site for a wide variety of species.
- 4.2 The birds identified during the survey were predominantly common species, both at a national and local (i.e. county) level. However, 8 SPI species (dunnock, house sparrow, linnet, reed bunting, skylark, song thrush, starling and yellow wagtail) were recorded within or on the boundary of the site. All these species are likely to be breeding within or nearby the site boundary. Other than Skylark with an estimated 1-2 territories, most of the 8 SPI species were recorded in small numbers during the surveys. Several other BoCC Red and Amber listed species were also likely breeding within or close to the site e.g., house martin, mallard, rook, stock dove and woodpigeon. The presence of 8 SPI species, 9 BoCC Red and 14 Amber listed species and several commoner species in good numbers e.g., blackbird and goldfinch suggest a site of high interest on a local level for birds.
- 4.3 Most of the breeding and foraging activity during surveys was concentrated along the boundary vegetation (grassland field margins, hedgerow, trees, and scrub) on the site. Although these areas have the potential to support the biggest diversity of species, they are mostly commoner species, though do benefit several species such as dunnock, linnet, reed bunting and song thrush which are SPI, BoCC Red or Amber listed and LBAP species.
- 4.4 Areas of existing field margins which contain semi-improved grassland, especially those adjacent to public rights of way should continue to be managed as semi-improved grassland strips and wildflower meadow areas as appropriate. This will maintain foraging opportunities for priority species, such as linnet and reed bunting, and other commoner species already present on site. Clear mown pathways should be incorporated and maintained in these areas to encourage pedestrians to reduce disturbance to ground nesting birds.
- 4.5 Small numbers of skylark territories were recorded using the site. There were estimated to be between 1-2 territories across the site. Skylark were also noted

audibly in the surrounding landscape. An appropriate number of plots within adjacent or nearby arable close to the site should be created and managed specifically for skylark which will encourage skylark to breed and mitigate for the lost habitat on site; a total of 4 skylark mitigation plots will be required.

- 4.6 All observations of red kite on the site during the surveys, show that this species uses the site for commuting in-between their breeding territories and also for occasional foraging. A single red kite was also observed calling frequently from a mature oak tree (*Quercus robur*) on the eastern boundary which does have the potential to support breeding red kite, albeit limited, which is a WCA Schedule 1 species.
- 4.7 The mature trees, grassland margins, hedgerows and scrub should be retained where practical, to maintain breeding, foraging and commuting habitat for birds. These should be managed sympathetically in the long-term to retain currently established habitat suitable for nesting, and to provide a mosaic of habitats throughout the site for foraging birds.
- 4.8 Planting within the development will be designed to maintain connectivity throughout the site for birds. Hedgerow planting on the boundaries for screening, gapping and along access roads and tracks will provide extra breeding and foraging opportunities.
- 4.9 Additional hedgerow planting for screening and gapping will provide additional nesting and foraging opportunities for birds. Planting should include native fruit, seed and nut bearing species such as alder (*Alnus glutinosa*), blackthorn (*Prunus spinosa*), cherry plum (*Prunus cerasifera*), crab apple (*Malus sylvestris*), dogwood (*Cornus sanguinea*), elder (*Sambucus nigra*), elm (*Ulmus sp.*), field maple (*Acer campestre*), guelder rose (*Viburnum opulus*) hawthorn (*Crataegus monogyna*), pedunculate oak (*Quercus robur*), rowan (*Sorbus aucuparia*) and wild cherry (*Prunus avium*). These species would also encourage a wider diversity of invertebrates and support a wide variety of common and scarcer bird species e.g., blackbird, blue tit, chaffinch, great tit, greenfinch, starling, woodpigeon and wren.
- 4.10 Any trees, hedgerows or scrub to be retained, should be suitably protected from harm throughout the duration of the works to preserve this nesting and foraging

habitat for birds. All trees that are to be retained should have a Root Protection Zone (RPZ) to aid in protection from machinery.

- 4.11 Any standing dead trees, such as ash (*Fraxinus excelsior*) and elm (*Ulmus sp.*) should be retained where possible, as they provide valuable foraging opportunities, nesting places and song perches for a variety of bird species e.g., blue tit, great spotted woodpecker, starling and stock dove.
- 4.12 Retained hedgerows should have a buffer of approximately 3-6m (where practical) from any infrastructure, to retain existing scrub and grassland margins for foraging birds.
- 4.13 Any vegetation clearance or management should be undertaken outside the breeding bird season, which is deemed to be March to September (weather dependant). Should vegetation removal be required during the nesting season, a nesting bird check should be undertaken by a suitably qualified ornithologist no more than two days prior to works.
- 4.14 To enhance bird nesting opportunities on the site, a variety of bird boxes should be installed on retained trees, as well as suitable bird boxes or bird bricks on any new buildings within the development where possible. Suggested bird boxes for species already present or in close proximity to the site include the following:
- house sparrow (Schwegler 1SP or equivalent),
 - house martin (Schwegler 13B or equivalent),
 - starling (Schwegler 3SV or equivalent),
 - stock dove (Schwegler 4 or equivalent),
 - swallow (Schwegler 10 or equivalent), and
 - swifts bricks or boxes (Schwegler 16/17/18 or equivalent).
- 4.15 In addition, a standalone box for Barn Owl (Schwegler box no 23 or equivalent) may be of benefit for this species.

- 4.16 Finally, a variety of standard bird boxes either open-fronted (Schwegler 2H or equivalent) or with different sized and shaped entrance holes (Schwegler 1B, 1N, 1ZA, 2GR, 2HW, 2M, 2T or equivalent) can also be installed on retained mature trees or within established hedgerows along the boundaries to attract a greater diversity of birds to nest e.g. blue tit, coal tit, dunnock, great tit, robin, song thrush and wren.
- 4.17 Bird box installation should be conducted following the advice of an ornithologist once a fixed layout has been produced to ensure most appropriate locations and fixings.
- 4.18 All mitigation and enhancement measures, including management of retained and new grassland strips/plots, hedgerows, ponds, scrub, wildflower meadow for nesting and foraging birds and all necessary maintenance works for the nest boxes in the long term should be detailed within a Landscape and Ecological Management Plan (LEMP).
- 4.19 If the majority of the above mitigation and enhancements can be incorporated into the proposed development, it is considered that the local population of important bird species can be retained and possibly increased due to providing more opportunities for foraging and nesting.

5 CONCLUSION

- 5.1 The birds identified during the survey were predominantly common species, both at a national and local (i.e. county) level. There were 8 SPIs (dunnock, house sparrow, linnet, reed bunting, skylark, song thrush and starling) recorded within or on the boundary of the site. All these species are likely to be breeding within or nearby the site boundary, except yellow wagtail.
- 5.2 The mature trees, hedgerows and scrub should be retained where practical, to maintain breeding, foraging and commuting habitat for birds. These should be managed sympathetically in the long-term to retain currently established habitat suitable for nesting, and to provide a mosaic of habitats throughout the site for foraging birds.
- 5.3 Small numbers of skylark territories were recorded using the site. There were estimated to be between 1 to 2 territories across the site. Skylark were also audible in the wide landscape. It is recommended that 4 plots are provided within adjacent or nearby arable fields and are managed specifically to encourage skylark to breed and mitigate for the lost habitat on site.
- 5.4 Other mitigation measures including root protection zones for mature trees, vegetation clearance outside the breeding season and retention of dead trees for foraging and nesting opportunities on site should also be part of an overall LEMP for the site.
- 5.5 It is considered that continued sympathetic management of existing habitats on site, suitable buffers to retained hedgerows, compensatory and additional hedgerow and scrub planting and provision of additional nesting opportunities through various nest boxes on retained trees and new buildings, the likely loss of some areas of nesting and foraging habitat will be adequately mitigated for, and the value of the site for birds will be maintained and potentially increased.

6 REFERENCES

Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds* 114: 723-747.

HMSO (1981) *Wildlife and Countryside Act*. HMSO, London.

HMSO (2006) *Natural Environment and Rural Communities Act*. HMSO, London.

National Planning Policy Framework (2021).

Web references

BTO: www.bto.org

JNCC: Species of Principal Importance www.jncc.defra.gov.uk

<https://www.rspb.org.uk/our-work/conservation/conservation-and-sustainability/farming/advice/managing-habitats/wild-bird-seed-mixture/>

<https://www.rspb.org.uk/globalassets/downloads/documents/farming-advice/wild-bird-seed-mixtures-advisory-sheet-england.pdf>

<https://www.rspb.org.uk/our-work/conservation/conservation-and-sustainability/farming/advice/helping-species/linnet/>

<https://www.rspb.org.uk/our-work/conservation/conservation-and-sustainability/farming/advice/helping-species/reed-bunting/>

<https://www.rspb.org.uk/our-work/conservation/conservation-and-sustainability/farming/advice/helping-species/skylark/>



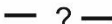


<https://www.rspb.org.uk/our-work/conservation/conservation-and-sustainability/farming/advice/helping-species/yellow-wagtail/>

Schwegler: <https://www.schwegler-natur.de/vogelschutz/?lang=en>

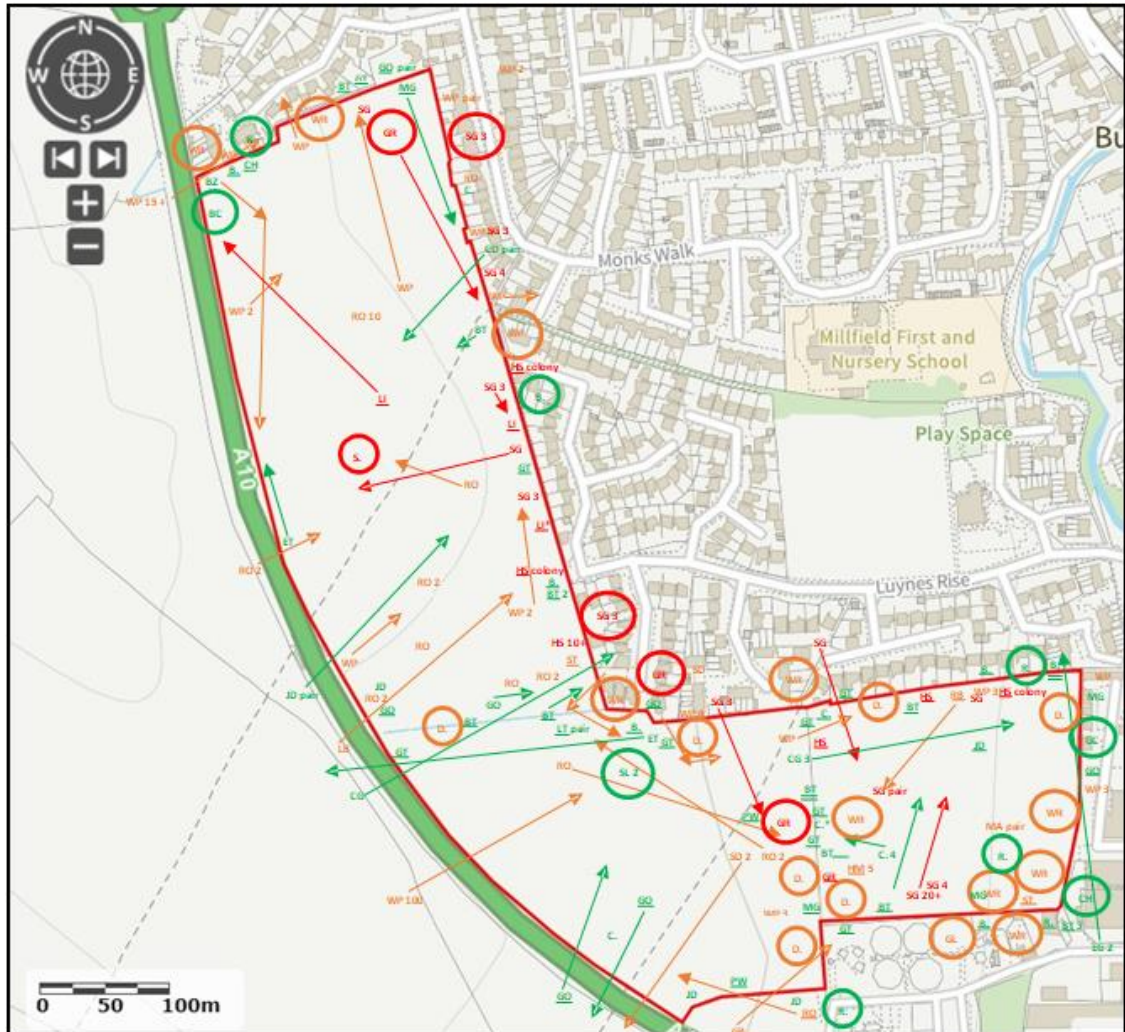
Appendix A: Plans showing bird activity

Species recorded during the four survey visits. The species codes used can be found in Table 1.

Map Key

BT	BoCC green listed species		Chaffinch singing
SI	BoCC amber listed species		Direction of flight
ST	BoCC red listed species		Probably the same bird
PH	BoCC unlisted species		Two dunnocks in song simultaneously (definitely different birds)
CH	Chaffinch calling	S.*	Skylark nest
R.juv	Juvenile robin	WHfood	Whitethroat carrying food
2D.mat	Two dunnocks carrying nest material		Aggressive/territorial encounter between two skylarks
S.♂	A pair of skylarks		
LTfam	Juvenile long-tailed tits with parents in attendance		

Visit 2: 25th April 2023



Visit 4: 21st June 2023

