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Breeding Birds Report

Client

Caddick Developments Limited

Project

Land at Junction 22 of the M1, Cliffe Hill Farm

Date

August 2025

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1.0 INTRODUCTION

- 1.1 FPCR Environment & Design Ltd. was commissioned by Caddick Developments Limited to undertake breeding bird surveys on Land at Junction 22 of the M1, Cliffe Hill Farm (Central OS Grid Reference: SK 48127 11534) hereafter referred to as 'the Site'.
- 1.2 This document should be read in conjunction with the other ecological documents prepared for this application, which includes the accompanying Ecological Appraisal.

Site Location & Context

- 1.3 The Site is located immediately east of Junction 22 of the M1 motorway, encompassing Cliffe Hill Farm and White Hill Farm. The Site comprises a series of pastoral grassland field compartments, predominantly grazed pasture, divided by native hedgerows with mature trees and some remnant sections of stone walls. A strip of Scots pine plantation woodland stands centrally within the Site with a small area of broadleaved woodland that straddles Cottage Lane in the southeast of the Site. A series of buildings associated with Cliffe Hill Farm are present in the south of the Site.
- 1.4 Excepting the M1 which runs along the western edge of the Site and the A50 flanking the southern boundary, the wider area surrounding the Site is similar to that within the Site; pastoral grassland divided by hedgerows with blocks of woodland, particularly in the wider landscape to the east. Quarries are a significant feature of the surrounding landscape to the west.

Development Proposals

- 1.5 Current proposals are exploring the scope for industrial development of the Site to create B2 and B8 type units with associated infrastructure. This would require substantial cut and fill earthworks to deliver the necessary levels. Access to the Site would be achieved by entering from the A50 and exiting onto Whitwick Road to the east.
- 1.6 It is anticipated that the majority of habitats across the Site will be removed due to the widescale earthworks required to achieve the necessary levels to deliver a scheme of this type. This will include loss of hedgerows, mature trees, the majority of grasslands and existing buildings. An area centrally within the Site around the existing plantation will be retained, including the adjacent scrub and hedge habitat.

Report Aims and Objectives

- 1.7 This report has been informed by Breeding Bird Survey comprising four visits carried out between late March and mid-July 2024 inclusive. The objectives of the survey were to:
- Identify the presence of any designated nature conservation sites that support notable breeding bird assemblages within or in the vicinity of the Site.
 - Identify the presence, species, and distribution of breeding birds within the Site.
 - Evaluate the conservation importance of habitats within the Site to local bird populations and identify any areas of ornithological interest.
 - Make recommendations to minimise the potential impact of development and to consider opportunities for additional mitigation, compensation, and enhancement where relevant.

2.0 LEGISLATION AND STATUS

- 2.1 The Wildlife and Countryside Act 1981 (as amended) (WCA) 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; or
 - Take or destroy the egg of any wild bird.
- 2.2 Additional protection is afforded to species listed on Schedule 1 of the WCA, whereby intentional disturbance whilst building or occupying a nest or disturbance of dependent young is also considered an offence.
- 2.3 Certain species have also been identified as Species of Principal Importance (SPI) under Section 41 of the NERC Act 2006 (NERC S.41). The S.41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.
- 2.4 The Site falls within the Leicester, Leicestershire, and Rutland Local Biodiversity Action Plan (LLRBAP, hereafter referred to as 'the LBAP') which identifies several targets for UK priority species that occur within this area, namely: barn owl *Tyto alba*, nightingale *Luscinia megarhynchos*, redstart *Phoenicurus phoenicurus*, sand martin *Riparia riparia*, and a multi-species action plan for swift *Apus apus*, swallow *Hirundo rustica*, and house martin *Delichon urbicum*.

Status

- 2.5 In addition to statutory protection, some bird species are classified according to their conservation statuses, such as their inclusion on the Red and Amber lists of Birds of Conservation Concern (BoCC) in the UK.
- 2.6 Red list (high conservation concern) species meet at least one of the following criteria:
- They are globally threatened according to IUCN criteria.
 - Their population has declined rapidly (50% or more) in recent years.
 - They have declined historically and not shown a substantial recent recovery.
- 2.7 Amber list (medium conservation concern) species are those that meet at least one of the following criteria:
- They have unfavourable conservation status in Europe.
 - Their population or range has declined moderately (between 25-49%) in recent years.
 - Their population has declined historically but made a substantial recent recovery.
 - They are rare breeders.
 - They have 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 To compile existing baseline ornithological information, the following statutory and non-statutory organisations were consulted for data regarding designated sites for which birds are a qualifying feature, and protected/notable bird records.
- Natural England via the Multi Agency Geographic Information for the Countryside (MAGIC¹).
 - Leicestershire & Rutland Environmental Records Centre (LRERC).

Field Surveys

- 3.2 The survey methodology employed was in accordance with the protocol specified in the best practice guidelines – Bird Survey Guidelines for Assessing Ecological Impacts². All birds encountered (seen or heard) were recorded on a field survey plan using standard BTO species codes and symbols for bird activities and to denote activity, sex, and age where appropriate. Breeding status was inferred for each species based on the sixteen categories implemented by the European Ornithological Atlas Committee (EOAC)³ and their corresponding definitions, in addition to four additional codes to classify non-breeding species as birds recorded away from suitable breeding habitat, summering non-breeders, passage migrants, or flyovers. Birds were considered to be holding a territory and therefore likely to be utilizing the Site for breeding activities if they were displaying breeding behaviours, such as: singing, nest building, food carrying or territorial defence. If birds did not display such behaviours, e.g. they were only recorded flying over the Site, they were considered non-breeders. These criteria and these definitions are outlined in Appendix A.
- 3.3 To provide a reasonable level of accuracy for determining the population status of the breeding birds on the Site, a total of four surveys were undertaken in 2024. Three were conducted between dawn and 11.00am in April, May, and June, with a single dusk survey in July undertaken an hour prior to sunset and finishing an hour after. The surveys span the season in which the majority of breeding activity occurs for typical species, and no species with vastly differing breeding cycles are reasonably expected to occur at this Site following the consultation results and assessment of the habitats present.
- 3.4 The survey effort underwent rolling review by experienced ornithologists from FPCR. These reviews indicated that the surveys returned a typical assemblage of common and widespread birds. Furthermore, the composition and peak counts showed consistency between survey occasions. Considering the law of diminishing returns, it was concluded that further survey effort was unlikely to uncover significant additional information to change the impact assessment. As the majority of habitats are proposed to be lost during construction, it was anticipated that the effects of the development would be adverse for the associated bird species in the short-term, though this was offset by the abundance of similarly suitable habitat

¹ www.magic.gov.uk

² Bird Survey & Assessment Steering Group. (2023). Bird Survey Guidelines for assessing ecological impacts, v.1.1.1. Available at: <https://birdsurveyguidelines.org> [Accessed: 26.06.24]

³ Sharrock, J.T.R (1973) Ornithological Atlases. Auspicius 5:13-15.

in the locality, and the fact that large areas of grassland and hedgerow habitats are proposed to be created as part of the Site's green infrastructure.

- 3.5 The dusk survey was undertaken during failing light and continued into darkness, where surveyors used a Pulsar Axion XQ38 thermal imaging monocular to observe birds, to account for temporal variations in species' detectability being timed to coincide with peak activity of likely crepuscular and/or nocturnal species and identify important roost sites should any be present.
- 3.6 A route was mapped out prior to the surveys being undertaken, paying particular attention to any linear features, such as hedgerows and watercourses, and other features such as ponds and scrub. Bird surveys were not undertaken in unfavourable conditions, such as heavy rain or persistent strong wind (conditions which can negatively affect the results). To provide inter-survey temporal variation between surveys to account for variation in species' detectability throughout the day, the starting location and direction of walking were stratified across the four surveys. Table 1 provides details of the survey dates and weather conditions.

Table 1: Survey Dates & Conditions

Survey	Date	Cloud Cover (%)	Rain	Wind (Beaufort)	Visibility
BBS 1	24.04.24	10	None	0 – None	Excellent
BBS 2	15.05.24	100	None	1 – Light Air	Good
BBS 3	24.06.24	0	None	0 – None	Excellent
BBS 4 – dusk	17.07.24	50	None	1 – Light Air	Excellent

Species & Assemblage Assessment

- 3.7 The Chartered Institute of Ecology and Environmental Management (CIEEM) guidance on ecological impact assessment assesses nature conservation importance within a geographical context⁴. To attain each level of importance, 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 importance, based upon local knowledge.
- 3.8 The site has also been assessed against the selection criteria for Local Wildlife Site (LWS) for Leicestershire⁵ on a number of criteria set out for breeding birds. LWSs are recognised by central government as an important tool in promoting sustainable development and protecting biodiversity.
- 3.9 The recent county annual bird report, *The Leicestershire & Rutland Annual Bird Report 2020*⁶, was consulted to inform the assessment. The abundance of species referred to by these reports is classified by the following criteria:
- Very Rare – Fewer than ten records ever;

⁴ http://www.cieem.net/data/files/Publications/EcIA_Guidelines_Terrestrial_Freshwater_and_Coastal_Jan_2016.pdf

⁵ Leicestershire County Council (2011) Guidelines for the selection of Local Wildlife Sites (previously known as Sites of Importance for Nature Conservation or SINC)s in Leicester, Leicestershire and Rutland. 4th edition.

⁶ The Leicestershire & Rutland Ornithological Society (2022) Leicestershire & Rutland Annual Bird Report 2020.

- Rare – More than ten records ever, but occurring less than annually in the county;
- Scarce – Fewer than ten individuals or breeding pairs occurring annually in the county;
- Uncommon – Between ten and 100 individuals or breeding pairs occurring annually in the county;
- Fairly Common – Between 100 and 1,000 individuals or breeding pairs occurring annually in the county;
- Common – Between 1,000 and 10,000 individuals or breeding pairs occurring annually in the county;
- Abundant – More than 10,000 individuals or breeding pairs annually in the county.

Table 2: Evaluation Criteria

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

4.0 RESULTS & EVALUATION

Desk Study

Statutory Designated Sites

- 4.1 Two statutory designated sites of national importance for nature conservation were present within 2km of the Site. Full details of these designated sites, including an assessment of effects resulting from the proposals, are provided in the Preliminary Ecological Appraisal⁷ issued by FPCR in 2024. As these sites were not designated for significant populations and/or assemblages of birds in their citations, they have not been considered further in this BBS report.

Non-Statutory Designated Sites

- 4.2 A total of 20 non-statutory designated sites are present within 1km of the Site, full details of which are provided in the Ecological Appraisal (FPCR June 2025). None of these sites received designated status due to having significant populations and/or assemblages of birds, and thus are not considered further in this report.

Protected/Notable Species

- 4.3 A total of 133 records were identified within 1km of the Site in the desk study, pertaining to 37 species. Of these species, all but five species are afforded legislative protection, which included mandarin duck *Aix galericulata*, swift *Apus apus*, swallow *Hirundo rustica*, house martin *Delichon urbicum*, and sand martin *Riparia riparia*.

Table 3: Bird Species Records from Desk Study

Name		Status			Within Site Boundary
		WCA Sch.1	NERC S.41	LBAP	
BoCC Red List					
White-fronted goose	<i>Anser albifrons</i>		+		No
Swift	<i>Apus apus</i>			+	No
Cuckoo	<i>Cuculus canorus</i>		+		No
Curlew	<i>Numenius arquata</i>		+		No
Lesser spotted woodpecker	<i>Dryobates minor</i>		+		No
Marsh tit	<i>Poecile palustris</i>		+		No
Willow tit	<i>Poecile montanus</i>		+		No
Skylark	<i>Alauda arvensis</i>		+		No
Grasshopper warbler	<i>Locustella naevia</i>		+		No
House martin	<i>Delichon urbicum</i>			+	No
Starling	<i>Sturnus vulgaris</i>		+		No
Fieldfare	<i>Turdus pilaris</i>	+			No
Spotted flycatcher	<i>Muscicapa striata</i>		+		No
House sparrow	<i>Passer domesticus</i>		+		No

⁷ FPCR (2024) Land North West of Markfield – Preliminary Ecological Appraisal

Name		Status			Within Site Boundary
		WCA Sch.1	NERC S.41	LBAP	
Tree pipit	<i>Anthus trivialis</i>		+		No
Hawfinch	<i>Coccothraustes coccothraustes</i>		+		No
Linnet	<i>Linaria cannabina</i>		+		No
Lesser redpoll	<i>Acanthis cabaret</i>		+		No
Yellowhammer	<i>Emberiza citrinella</i>		+		No
BoCC Amber List					
Quail	<i>Coturnix coturnix</i>	+			No
Greylag goose	<i>Anser anser</i>	+			No
Osprey	<i>Pandion haliaetus</i>	+			No
Redwing	<i>Turdus iliacus</i>	+			No
Song thrush	<i>Turdus philomelos</i>		+		No
Dunnock	<i>Prunella modularis</i>		+		No
Bullfinch	<i>Pyrrhula pyrrhula</i>		+		No
Reed bunting	<i>Emberiza schoeniclus</i>		+		No
BoCC Green List					
Barn owl	<i>Tyto alba</i>	+		+	No
Red kite	<i>Milvus milvus</i>	+			No
Hobby	<i>Falco subbuteo</i>	+			No
Peregrine	<i>Falco peregrinus</i>	+			No
Swallow	<i>Hirundo rustica</i>			+	No
Sand martin	<i>Riparia riparia</i>			+	No
Common crossbill	<i>Loxia curvirostra</i>	+			No
Not Listed					
Mandarin duck	<i>Aix galericulata</i>				No
Bee-eater	<i>Merops apiaster</i>	+			No
Golden oriole	<i>Oriolus oriolus</i>	+			No

- 4.4 No species were recorded from within the Site. Several of the notable species for which records were returned are considered unlikely to breed within the Site as there is little to no suitable habitat e.g. osprey *Pandion haliaetus*, or are only winter migrants to the region e.g. redwing *Turdus iliacus* and white-fronted goose *Anser albifrons*.

Field Surveys

- 4.5 A total of 34 species were recorded over the course of the four surveys, of which four were only recorded as flying over the Site only, and thus are considered insignificant records. Of the remaining 30 species recorded within the Site, 10 are considered notable species as they are included in one of the following pieces of legislation/classifications:

- Schedule 1 of the WCA
 - Section 41 of the NERC Act 2006
 - BoCC Red or Amber lists
- 4.6 Breeding evidence gathered across the four survey occasions was used in the assignment of breeding statuses for each species in the following results.
- 4.7 Of the 30 species recorded utilising the Site, seven were confirmed as breeding species, including starling *Sturnus vulgaris* and dunnoek *Prunella modularis* – which are Red and Amber listed respectively. Other species confirmed as breeders within the Site also included non-notable great tit *Parus major*, blue tit *Cyanistes caeruleus*, great spotted woodpecker *Dendrocopos major*, pied wagtail *Motacilla alba* and robin *Erithacus rubecula*.
- 4.8 Two species were considered to be probable breeders within the Site, comprising wren *Troglodytes troglodytes* and blackbird *Turdus merula*, which are Amber and Green listed bird species respectively.
- 4.9 Eighteen species were considered to be possible breeders within the Site, of which stock dove *Columba oenas*, woodpigeon *Columba palumbus*, tawny owl *Strix aluco*, whitethroat *Curruca communis*, song thrush *Turdus philomelos*, greenfinch *Chloris chloris*, and linnet *Linaria cannabina* were notable species.
- 4.10 Due to being observed only within unsuitable habitat or overflying the Site, eight species were considered non-breeders within the Site, of which house sparrow *Passer domesticus*, lesser black-backed gull *Larus fuscus*, swift *Apus apus*, and mallard *Anas platyrhynchos* were notable species.
- 4.11 Table 4 provides a summary of the notable species recorded during the breeding bird survey and their respective statuses on-Site, whilst Figure 1 shows their approximate distributions within the Site. A full list of bird species recorded over the four survey occasions can be found in Appendix A, alongside the EOAC Criteria for the Categorisation of Breeding Status.

Table 4: Notable Bird Species recorded at Markfield

Species	Legal/ Conservation Status	Peak Count/ Number of Survey Occasions Recorded	Breeding Status	Recent Status in Leicestershire
Stock Dove <i>Columba oenas</i>	Amber List	1 / 1	Possible	Fairly Common to Common resident breeder
Woodpigeon <i>Columba palumbus</i>	Amber List	14 / 4	Possible	Abundant resident breeder
Tawny Owl <i>Strix aluco</i>	Amber List	2 / 1	Possible	Fairly Common resident breeder
Whitethroat <i>Curruca communis</i>	Amber List	2 / 1	Possible	Common summer migrant breeder
Wren <i>Troglodytes troglodytes</i>	Amber List	12 / 4	Probable	Abundant resident breeder
Starling <i>Sturnus vulgaris</i>	Red List NERC S.41	44 / 2	Confirmed	Abundant resident breeder

Species	Legal/ Conservation Status	Peak Count/ Number of Survey Occasions Recorded	Breeding Status	Recent Status in Leicestershire
Song Thrush <i>Turdus philomelos</i>	Amber List NERC S.41	3 / 4	Possible	Common resident breeder
House Sparrow <i>Passer domesticus</i>	Red List NERC S.41	1 / 1	Non- breeder	Common resident breeder
Dunnock <i>Prunella modularis</i>	Amber List NERC S.41	4 / 4	Confirmed	Abundant resident breeder
Greenfinch <i>Chloris chloris</i>	Red List	6 / 1	Possible	Common resident breeder
Linnet <i>Linaria cannabina</i>	Red List NERC S.41	1 / 1	Possible	Common resident breeder

Bird Survey Results Description

- 4.12 The majority of the bird species recorded on-Site were representative of the habitats present. Most bird species recorded across the four breeding bird surveys were non-notable widespread and common generalist species which are typical of the agricultural, hedgerow, and scrub habitats present on-Site.
- 4.13 The interiors of the grazed pasture fields throughout the Site supported a limited number of bird species, of which only starling *Sturnus vulgaris* was notable. Other bird species recorded in this habitat included carrion crow *Corvus corone*, magpie *Pica pica*, and pied wagtail *Motacilla alba*. This habitat did not provide suitable breeding opportunities for any of these species and all were recorded foraging or loafing only.
- 4.14 Hedgerows and scrub habitat were the focal point of bird activity throughout the Site – all notable bird species with the exception of starling were recorded within this habitat, including the singular farmland bird record of BoCC Red-Listed linnet *Linaria cannabina*. Other notable bird species recorded in this habitat included song thrush *Turdus philomelos*, dunnock, and stock dove *Columba oenas*.
- 4.15 Woodland habitat on-Site supported a limited number of bird species; the only notable bird species recorded within this habitat were woodpigeon *Columba palumbus*, wren *Troglodytes troglodytes*, and dunnock *Prunella modularis*. Non-notable bird species included treecreeper *Certhia familiaris*, and nuthatch *Sitta europaea*, which are both typical of woodland habitat.

Evaluation

Breeding Assemblages

Grasslands

- 4.16 The grazed pasture habitat supported a limited breeding bird assemblage; the closed continuous sward found in the majority of the fields (formed predominantly by perennial rye *Lolium perenne* and creeping bent *Agrostis stolonifera*) lacked tussocks and resultantly was unsuitable for ground-nesting species, which was compounded by the presence of trees both marginally and within fields, which are known to deter ground nesting species such as skylark.

The grazed fields nonetheless do provide some foraging opportunities for species such as starling and pied wagtail, which were recorded with juveniles in this habitat. This habitat however supports limited structural or botanical diversity and its value as a foraging habitat is consequently limited.

- 4.17 As the grazed pasture fields neither supported any breeding birds nor offered a particularly significant foraging resource, it is not considered that this habitat onsite presents an isolated or exceptional instance of foraging and breeding habitat for any bird species. Bird species recorded within the grazed field centres were mostly found to be utilising the habitat as a foraging or loafing resource and included generalist and widespread species such as pied wagtail, carrion crow, and starling, none of which are limited to using grazed pasture as a source of forage, and which are frequently found in a diverse array of habitats both urban and rural. Given the absence of any bird species which might feasibly be reliant on this habitat for breeding and/or foraging, this habitat is only considered to be of **Site** level nature conservation importance.

Hedgerows

- 4.18 Hedgerow, associated trees and scrub habitat within the Site provided breeding and/or foraging habitat for a variety of common and widespread generalist species including wren and dunnock, which were probable and confirmed breeders, respectively. A single farmland bird, linnet, was also recorded on one occasion flying from a hedgerow. This species was considered a possible breeder on the basis of being recorded within suitable nesting habitat, but given the absence of any cropped fields or species-rich grasslands onsite which are favoured by linnet for foraging, and that only one individual was recorded across all breeding bird surveys, it is unlikely that this species is breeding on-Site.
- 4.19 Other notable species considered to be possible breeders within the abovementioned habitats are whitethroat *Curruca communis*, woodpigeon, and song thrush *Turdus philomelos*. Given that only two notable species were considered either probable or confirmed breeders within hedgerow and scrub habitat, and that this habitat is not a scarce resource in the agriculturally dominant locality, it is not considered that the abovementioned habitats present a significant breeding or foraging resource, and resultantly are considered to be of Local nature conservation importance.

Woodlands

- 4.20 Woodland habitat on-Site supported a limited breeding bird assemblage; wren, woodpigeon, and song thrush were the only notable bird species recorded in this habitat, with the former species considered probable breeders, and the latter two species possible breeders. It is worth noting that the individuals of the above species which were recorded within the woodland habitat were not observed displaying any breeding behaviours that would merit categorisation beyond 'possible breeder'. As the woodland was not found to provide any significant foraging or breeding resource for the species within the Site, and as it only makes up a small proportion of the woodland habitat that is present locally, the woodland habitat present on-Site are considered to be of Site level nature conservation importance.

5.0 DISCUSSION AND RECOMMENDATIONS

- 5.1 The following section provides an assessment of the potential impacts of the proposals upon breeding birds. Where appropriate, recommendations are provided for mitigation and enhancement that take into account the likely ecological effects. Throughout the evaluation, any recommendations for mitigation have been informed by the most up-to-date Masterplan.
- 5.2 The proposed habitats primarily comprise large areas of developed land, which will be mostly unsuitable for most bird species currently associated with the Site, save as foraging and breeding resources for species which are known to utilise urban habitats such as starling *Sturnus vulgaris* and pied wagtail *Motacilla alba*.
- 5.3 Green infrastructure will include native hedgerows (some retained, mostly created) and planted urban trees which will form connective habitat between areas of other neutral grassland and mixed scrub throughout the Site, and broadleaved woodland present at the Site margins.
- 5.4 Wetland habitat will also be created through the construction of sustainable urban drainage systems (SUDS).

Impact assessment of Breeding Birds

- 5.5 The potential impact of the loss or change of habitat upon breeding bird species arising from the effects of development is based upon an understanding of each species' ecological requirements, the type of development, number of birds recorded onsite, their nature conservation criteria based on legislation and current guidance, their county status according to *The Leicestershire and Rutland Annual Bird Report 2020*⁸ and professional judgement.
- 5.6 The following potential impacts to the recorded bird populations and assemblage may result from the proposals:
- Direct loss / change of breeding and/or foraging habitat
 - Disturbance during construction and/or operation

Habitat Loss

- 5.7 The proposals will lead to a loss of all pastoral habitat onsite, which – as mentioned above, were primarily observed to be utilised by breeding starling and pied wagtail. These species are not constrained to foraging only within pastoral grassland habitat, and it is unlikely given their propensity to utilise widely available agricultural and urban habitats for foraging that the grasslands on-Site form a vital foraging resource for these species. Furthermore, the proposed green infrastructure within the Site includes areas of grassland which will likely be sufficient to support the assemblage of breeding birds associated with grassland habitats on-Site. Resultantly, it is anticipated that the proposed development will have a Negligible impact in both the short term and long term.
- 5.8 A large proportion of the hedgerow habitat within the Site is proposed to be lost, with some proposed loss of small sections to allow for access and associated visibility splays, and the removal of scrub habitat. The species associated with these habitats are mostly common and widespread generalist species and are tolerant of moderate-to-high levels of anthropogenic

⁸ The Leicestershire and Rutland Ornithological Society (2020) 'The Leicestershire and Rutland Annual Bird Report 2020'

disturbance. Some notable species such as song thrush and dunnock may be impacted during the construction phase, however once development is complete the proposed green infrastructure throughout the Site will provide additional foraging, breeding, and connective habitat, complimenting adjacent habitat present off-Site. Hedgerow nesting species which are more sensitive to disturbance – i.e. whitethroat and linnet, are likely to be able to utilise hedgerow and areas of scrub adjacent to grassland habitats, particularly marginal instances of these habitats where disturbance will not be as severe. As retained hedgerow habitats may suffer a reduction in suitability to notable breeding bird species, it is anticipated that this will incur a Minor Adverse impact in the short term, however as nearly all species associated with this habitat will be able to continue utilising it after the construction phase, it is considered that this will have a Negligible impact in the long term.

- 5.9 Of the two woodland blocks present within the Site, only the mixed woodland is proposed to be lost during development; the scots pine woodland is to be wholly retained. The woodland that is proposed to be lost was generally observed to be less populated with bird species across survey occasions when compared with the scots pine woodland, but nonetheless serves as connective habitat between hedgerows, and as possible breeding habitat for song thrush as judged from the recorded behaviour for this species. The loss of this singular woodland block will likely result in a Negligible effect in both the short term and long term, as the habitat is unlikely to be a significant breeding and foraging resource for associated species given that the species observed within woodland habitats will also readily nest and forage in hedgerows, and the availability of woodland habitat in the wider landscape

Disturbance Impacts

- 5.10 Construction operations have the potential to disturb birds using the development area of the Site for roosting, foraging, and breeding. Operations likely to disturb breeding birds include noise and displacement during vegetation clearance, initial ground works, and some construction activities. During the breeding season, disturbance may lead to nest desertion or the avoidance of the area and reduce the suitability of retained nesting area, such as the retained hedgerows. As there is some potential for breeding success to be reduced, this is expected to have a Minor Adverse impact on the local conservation status of the bird species using the survey area for breeding, none of which were recorded in significant numbers.
- 5.11 To avoid disturbance to breeding birds, ground and vegetation clearance works will be undertaken prior to the bird-breeding season (i.e. avoiding March to August, inclusive). If this is not possible, the area will be checked prior to removal of vegetation or ground works by a sufficiently experienced ecologist. If active nests are recorded, vegetation will be left untouched and suitable 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 (as amended).

Operational Impacts

- 5.12 During the operational phase of development, disturbance impacts have the potential to reduce the suitability of the proposed habitats for the species recorded. Most of the species recorded within the Site are able to habituate to anthropogenic disturbance, evidenced by their presence in urban areas, and would be anticipated to make use of these habitats. Species recorded within

the Site which are more sensitive to disturbance (i.e. whitethroat) were not recorded in significant numbers, and will likely be able to utilise created/retained marginal areas of hedgerow and scrub which will be subjected to less disturbance. Resultantly, it is anticipated that the impact of the operational phase of the development will be Negligible.

Habitat Mitigation

- 5.13 The grassland habitat proposed for creation may be enhanced by seeding with mixes specifically designed to provide foraging resources for birds or by using green hay. Subsequent management should encourage the establishment of a diverse sward through low-intensity management.
- 5.14 The proposed attenuation features should hold areas of permanent water, if feasible, since this will prevent any drying of the features and ensuing encroachment of scrub and provides suitable habitat for wetland bird species. The peripheries of these wet areas should be planted with an appropriate native inundation-tolerant marginal vegetation mix that includes common reed *Phragmites australis* to provide potential nesting opportunities for wetland species, including for species that have not yet been recorded on-Site, such as reed bunting *Emberiza schoeniclus*, and sedge warbler *Acrocephalus schoenobaenus*. Non-native plants should be avoided, as many are invasive. The creation of wetland grassland within the temporarily wet/inundated parts of the feature, along with sensitive management, will provide valuable foraging habitat for birds.
- 5.15 Additional planting incorporated into the green infrastructure is recommended, and priority should be given to the use of native fruit and seed-bearing species of local origin to provide an optimal foraging resource for a range of bird species recorded.

Enhancements

- 5.16 Such enhancements that could be integrated with the on-going management of the Site includes the erection of a mixture of nest box types within the retained scrub-woodland. The following provides details of suitable nest box types:
- A mixture of small hole (26mm and 32mm) boxes placed along the retained habitat around the proposed development area to provide nesting opportunities for a range of tit species. These boxes generally have a high uptake rate.
 - Small open fronted nest boxes 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.
 - Stove dove boxes, also suitable to provide opportunities for jackdaw, located on retained trees, at least 3m from the ground level, with a clear flight path, or where in closer proximity to the urban edge, placed at 5m to encourage use.
 - Starling nest boxes designed with a 45mm entrance hole, placed 2.5m from the ground on the retained trees, as well as on buildings. Ideally including 3 or more boxes in close proximity to encourage a loose colony.
 - Sparrow terrace nest boxes with 32mm hole placed on buildings, ideally fitted under eaves as this is preferred by house sparrows.

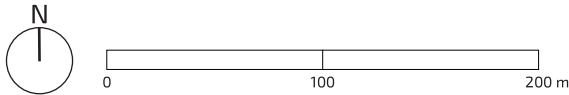
- The inclusion of swift boxes and artificial house martin nests on buildings within the development to encourage these species, which can take advantage of urban sites to breed. Both swift and house martin are gregarious, so several boxes in close proximity is beneficial. Swift boxes should be installed at a height of at least 5m, with an unobstructed flight path, with house martin nest boxes placed close under eaves at a height of no less than 2m.
- 5.17 Should any 'gapping up' of retained hedgerows be undertaken, consideration should be given to native and fruit/nut-bearing species, including but not limited to field maple *Acer campestre*, hawthorn *Crataegus monogyna*, dogwood *Cornus sanguinea*, hazel *Corylus avellana*, honeysuckle *Lonicera periclymenum*, blackthorn *Prunus spinosa*, dog-rose *Rosa canina*, elder *Sambucus nigra*, and holly *Ilex aquifolium*.

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BoCC 5 Red List Species

- HS House Sparrow
- LI Linnet
- SG Starling

BoCC 5 Amber List Species

- D Dunnock
- SD Stock Dove
- ST Song Thrush
- WP Woodpigeon
- WR Wren

Additional Protections

- NERC Species of Principal Importance
- Schedule 1 Species

date	24/02/25	drwn/chkd	JTB // LFR
client	Caddick Developmnets Limited		
project	Land at Junction 22 of the M1, Cliffe Hill Farm		
title	BREEDING BIRD SURVEY RESULTS PLAN - DISTRIBUTION OF NOTABLE SPECIES	scale	1:3,500 @ A3
number		rev	-

FIGURE 1

Appendix A: Land at Junction 22 of the M1 – 2024 Breeding Bird Survey Results & EOAC Criteria for Categorisation of Breeding Status

Species: Common Name	Species: Scientific Name	Survey 1 23.05.24	Survey 2 04.06.24	Survey 3 18.06.24	Survey 4 15.07.24	Conservation Status & Protection	Breeding Status
Canada Goose	<i>Branta canadensis</i>		2 flyovers			Not Listed	Non-breeder UH,F
Mallard	<i>Anas platyrhynchos</i>	2 flyovers				Amber List	Non-breeder UH,F
Swift	<i>Apus apus</i>				7 flyovers	Red List	Non-breeder UH,F
Stock Dove	<i>Columba oenas</i>	10 flyovers	3 flyovers	1 + 1 flyover		Amber List	Possible H
Woodpigeon	<i>Columba palumbus</i>	4 + 4 flyovers	14	9 + 4 flyovers	4	Amber List	Possible S,H
Lesser Black-backed Gull	<i>Larus fuscus</i>			2 flyovers		Amber List	Non-breeder F
Buzzard	<i>Buteo buteo</i>		1		1	Green List	Non-breeder UH
Tawny Owl	<i>Strix aluco</i>		2	0		Amber List	Possible H
Great Spotted Woodpecker	<i>Dendrocopos major</i>	2 + 2 flyovers		0 + 2 flyovers		Green List	Confirmed FL,H
Magpie	<i>Pica pica</i>	3		6	1	Green List	Possible H
Jackdaw	<i>Coloeus monedula</i>	1 + 3 flyovers	5 flyovers	1 + 6 flyovers	6	Green List	Possible H
Carrion Crow	<i>Corvus corone</i>	5 + 11 flyovers	2 + 1 flyover	2 + 8 flyovers	4	Green List	Non-breeder F
Coal Tit	<i>Periparus ater</i>			3	2	Green List	Possible S,H
Blue Tit	<i>Cyanistes caeruleus</i>	4	1	45 + 2 flyovers	12	Green List	Confirmed FL,A,S,H
Great Tit	<i>Parus major</i>	4	1	16	3	Green List	Confirmed FL,A,S,H
Swallow	<i>Hirundo rustica</i>	1 + 4 flyovers	4	4 + 2 flyovers		Green List	Non-breeder UH
Long-tailed Tit	<i>Aegithalos caudatus</i>				2	Green List	Possible H
Chiffchaff	<i>Phylloscopus collybita</i>	3	3	4	1	Green List	Possible S,H

Blackcap	<i>Sylvia atricapilla</i>	2		2		Green List	Possible S,H
Whitethroat	<i>Curruca communis</i>	2				Amber List	Possible S,H
Wren	<i>Troglodytes troglodytes</i>	12	2	10	5	Amber List	Probable A,S,H
Nuthatch	<i>Sitta europaea</i>			2	2	Green List	Possible S,H
Treecreeper	<i>Certhia familiaris</i>				2	Green List	Possible H
Starling	<i>Sturnus vulgaris</i>	1		44 + 9 flyovers		Red List NERC S.41	Confirmed FL,H
Song Thrush	<i>Turdus philomelos</i>	1	3	3	1	Amber List NERC S.41	Possible S,H
Blackbird	<i>Turdus merula</i>	3	5 + 2 flyovers	8	2	Green List	Probable A,S,H
Robin	<i>Erithacus rubecula</i>	12	7	12	8	Green List	Confirmed FL,A,S,H
House Sparrow	<i>Passer domesticus</i>			1		Red List NERC S.41	Non-breeder UH
Dunnock	<i>Prunella modularis</i>	4	3	4	3	Amber List NERC S.41	Confirmed D,S,H
Pied Wagtail	<i>Motacilla alba</i>	1		1		Green List	Confirmed S,H,FL
Chaffinch	<i>Fringilla coelebs</i>	1		1		Green List	Possible S,H
Greenfinch	<i>Chloris chloris</i>			1	6	Red List	Possible H
Linnet	<i>Linaria cannabina</i>			1		Red List NERC S.41	Possible H
Goldfinch	<i>Carduelis carduelis</i>	1 + 1 flyover		8 + 1 flyover	6	Green List	Possible S,H

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