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1 Introduction

1.1 Overview

This Breeding Bird Report concerns a proposed development on land at Bradley Villa Farm, on the northern edge of Huddersfield. As a part of this planning application Sterna Ecology Ltd (Sterna Ecology) was commissioned, by Futures Ecology Ltd, to undertake Breeding Bird Surveys of the Site.

The purpose of the Breeding Bird Surveys was to determine how birds use the Site, and the surrounding area, during the summer months, with these surveys then used to undertake an assessment of the ornithological value of the Site for breeding birds. Details of the surveys and subsequent assessment are included within this report.

Project management, reporting and ornithological survey work was all undertaken by Sterna Ecology.

All bird species detailed within this report follow the sequence and taxonomy recommended by the British Ornithologists' Union (BOU) (2013). Bird names used differ from those recommended by the BOU in that they follow the British (English) vernacular names in common usage by birders and ornithologists in the UK. These vernacular names are detailed in BOU (2013).

1.2 Reasons for Survey

1.2.1 Planning Policy

A range of planning policies are in place which ensure that developers and public bodies consider the potential impacts of any development upon wildlife, and are designed to ensure that there is no net loss in biodiversity as a result of the implementation of such proposals. Key points of such policies are outlined below.

1.2.1.1 National Planning Policy Framework (2020)

The NPPF outlines the government's policies, including those relating to the conservation and enhancement of the natural environment (Chapter 15), in line with existing wildlife legislation, through the planning process. Planning authorities must take into account the principles detailed within the document when preparing local plans and assessing local development applications.

The following key principles are included within the NPPF which are relevant to ecology and nature conservation:

Habitats and biodiversity

To protect and enhance biodiversity and geodiversity, plans should:

- Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

When determining planning applications, local planning authorities should apply the following principles:

- If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- Development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

The following should be given the same protection as habitats sites:

- Potential Special Protection Areas and possible Special Areas of Conservation;
- Listed or proposed Ramsar sites; and
- Sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

The presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats site is being planned or determined.

1.2.1.2 Natural Environment and Rural Communities (NERC) Act (2006)

In addition to the above, public authorities have a duty to conserve biodiversity under the Natural Environment and Rural Communities (NERC) Act, which came into force in October 2006. This states that 'any public body or statutory undertaker in England and Wales must have regard to the purpose of conservation of biological diversity in the exercise of their functions...and that decisions of public bodies work with the grain of nature and not against it' (Part 3, Paragraph 60). The Act also includes a range of measures to strengthen the protection of wildlife and habitats.

Section 41 (S41) of the NERC Act requires the government to publish a list of habitats which are of principal importance for the conservation of biodiversity in England. There are 56 habitats of principal importance included on the S41 list. They are the most important habitats for wildlife and a focus for conservation in England.

In England many of our rarest and most threatened species are listed under S41 of the 2006 NERC Act. Outcome 3 of the Governments' Biodiversity 2020 strategy contains an ambition to ensure that *'By 2020, we will see an overall improvement in the status of our wildlife and will have prevented further human-induced extinctions of known threatened species.'* Protecting and enhancing England's S41 species is key to delivering this outcome. There are currently 49 bird species listed on S41.

1.2.2 Statutory Legislation

In addition to the above, two key pieces of statutory legislation are in place to help ensure the protection of specific bird species within England. The EC Birds Directive (Council Directive 79/409/EEC on the conservation of wild birds and the Wildlife and Countryside Act 1981 (as amended)).

1.2.2.1 The EC Birds Directive

Annex 1 of the Directive lists those rare and vulnerable species of wild bird that are subject to specific conservation measures, including those species whose presence can dictate the identification and classification of SPAs. Such sites are protected against any activity that could compromise the structure, function, integrity or 'favourable conservation status' of the features for which they are designated.

1.2.2.2 The Wildlife and Countryside Act 1981 (as amended)

Part 1 of the WCA translates three pieces of European legislation (The Convention on the Conservation of European Wildlife and Natural Habitats or 'Bern Convention', the EC Birds Directive, and Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna or the 'EC Habitats Directive') into British law. Section 1 Part 1 of the WCA makes it an offence to:

- Intentionally kill, injure or take any wild bird;
- Take, damage or destroy the nest of any wild bird while it is being built or in use; and
- Take or destroy any eggs belonging to any wild bird.

A number of species are included on Schedule 1 of the Act that receive additional protection, including protection against disturbance while breeding/at the nest. A small number of exceptions apply; those species are listed on Schedule 2 of the Act.

1.2.3 Non-Statutory Information

1.2.3.1 Birds of Conservation Concern, as Designated by the Birds of Conservation Concern (BoCC) Partnership

In 2002 the RSPB published a colour-coded list of UK bird species to indicate their level of national conservation status/importance, which was updated to a fourth edition in 2015 to reflect changes in population status at both species and race levels (Eaton *et al.* 2015). Those species on the Red List are of high conservation concern, meeting at least one of the following criteria:

- Globally threatened;
- Historical population decline during 1800-1995¹;
- Rapid decline in the UK breeding population (50% or more during the past 25 years).
- Severe non-breeding population decline (>50% over 25 years or longer term); and
- Rapid contraction of the UK breeding range (50% or more during the last 25 years);

¹ Species moved to green if it no longer meets any other Red or Amber list criteria and has recovered permanently.

- Rapid contraction of the UK non-breeding range (>50% between the wintering bird atlases in 1984-84 and 2007-11).

Those species of moderate conservation concern are included on the Amber List, and meet at least one of the following criteria:

- Historical population decline during 1800-1995, but now recovering, with the population increasing by 100% over the last 25 years or the longer term;
- Moderate (25-49%) decline in the UK breeding population over the last 25 years;
- Moderate (25-49%) decline in the UK non-breeding population over the last 25 years;
- Moderate (25-49%) contraction of the UK breeding range between 1988-91 and 2007 or 1968-71 and 2007-11;
- Moderate (25-49%) contraction of the UK non-breeding range between 1981-84 and 2007-11;
- Species on the European Red List (Critically Endangered, Endangered or Vulnerable);
- Rare breeders if the UK population was <300 pairs;
- Rare non-breeders in the UK non-breeding population was <900 individuals;
- 50% or more of the UK breeding or non-breeding population in 10 or fewer sites, but not rare breeders;
- At least 20% or more of European breeding and/or non-breeding population in the UK; and
- For non-breeding waterbirds, at least 20% of the NW European (wildfowl) and East Atlantic Flyway (waders) in the UK.

Those species on the Green List are of lowest conservation concern, there being no identified threat to the species population status at present.

1.2.3.2 Kirklees Local Biodiversity Action Plan (LBAP) Species

The current Kirklees Biodiversity Action Plan covers the local authority area of Kirklees Council, encompassing the towns of Huddersfield, Batley, Dewsbury and Denby Dale as well as a number of smaller towns and villages. The cornerstone of the plan is habitat and species action plans for locally identified priority habitats and species. LBAPs identify local priorities for biodiversity and work to deliver agreed actions and targets for priority habitats and species and locally important wildlife and sites. There are currently 25 local priority bird species included within the Kirklees LBAP.

2 The Proposed Development

This section provides a brief summary of the location of the Proposed Development Site, as well as details of the proposal.

2.1 The Site and Locality

The Proposed Development Site is located in West Yorkshire, on the northern edge of Huddersfield, at an approximate central OS grid reference of SE150206. The location of the Site is shown in Figure 1, below.



Figure 1: Location of the proposed Bradley Villa Farm Proposed Development Site

Map data © 2020 Google

The Site primarily consists of three arable fields, two fairly large and one smaller. The fields slope from south to north, from a height above sea level of approximately 167m asl, dropping towards the M62 and a height of approximately 140m asl. Field boundaries are delineated by a mixture of fencing and hedgerows, although some sections of hedgerow are poor and gappy. There are also a number of boundary deciduous trees along some hedge lines, particularly in the south-east corner of the Site. The Site is bounded by the M62 motorway to the north, a golf course to the east and suburban housing, with gardens, to the south and west. Further afield, there are extensive built up residential areas of Huddersfield and Brighouse, to the south and north respectively, in addition to areas of arable farmland.

3 Survey and Assessment Methods

3.1 Consultation

Consultation data was requested from the West Yorkshire Ecology Service, in order to obtain further information regarding the presence and distribution of notable bird species within the Site and a 2km study area.

3.2 Desk Study

A desk-top search/assessment was carried out using the following web resources:

- The Government's Multi-Agency Geographic Information for the Countryside or 'MAGIC' website, which provides details of statutory sites designated for their ornithological interest;
- The *Birdguides* website, which provides a database of scarce and rare bird species recorded throughout the UK since November 2000;
- *An Atlas of the Breeding Birds of the Huddersfield Area* (Armitage et al. 2000);
- The relevant Ordnance Survey maps, in order to gain an overview of the types of habitat likely to be present within the site and surrounding area prior to carrying out the site surveys; and
- Google Earth, which provides aerial photographs of varying quality for different parts of England (and the world), in order to gain further information regarding the types of habitat likely to be present within the site and surrounding area prior to carrying out the site surveys.

3.3 Site Survey

3.3.1 Breeding Bird Surveys

Breeding bird surveys of the Site were carried out during the period of May to June 2020 within the Site boundary and a 200m buffer zone (hereon referred to as the Survey Area). The Survey Area was surveyed using a territory mapping methodology based on the British Trust for Ornithology (BTO) Common Bird Census (CBC) methodology. Full details of the methodology used can be found in both Gilbert *et al.* (1998) and Bibby *et al.* (2000). The dates, times and weather conditions of each survey visit are detailed in Table 1.

Table 1. Breeding Bird Surveys 2020: Dates, times and weather conditions.

Date	Time (hours)	Cloud cover	Wind	Precipitation	Temperature	Visibility
15-May-20	10.10-13.30	4/8	WNW1	None	11-12°C	Excellent (>3km)
24-May-20	05.35-09.10	6/8-7/8	WNW2	None	11-13°C	Excellent (>3km)
05-Jun-20	05.10-08.00	5/8	W3	None	8-10°C	Excellent (>3km)

3.3.2 Personnel

All project management, ornithological survey and reporting was undertaken by Paul Massey BSc (Hons) MCIEEM, Director of Sterna Ecology.

3.4 Assessment

In order to determine the value of the habitats and species found through the surveys detailed above, the baseline and survey results were assessed against a modified version of the criteria developed by the Chartered Institute of Ecology and Environmental Management (CIEEM) (Guidelines for Ecological Impact Assessment in the United Kingdom (Version 7 July 2006), <http://www.ieem.org.uk/ecia/index.html>). These criteria are outlined in the Table 2.

Table 2. CIEEM Criteria for Assessing the Value of Ornithological Receptors.

Value of Feature	Key Examples
International	<ul style="list-style-type: none">• An internationally designated site or candidate site for birds. For instance, Special Protection Area (SPA), proposed SPA (pSPA), Ramsar site, Important Bird Area (IBA), or an area which meets the designation criteria for such sites.• Any regularly occurring, globally threatened species.• A regularly occurring population of an internationally important species (such as an Annex 1 species), which is threatened or rare in the UK, or of uncertain conservation status.• A regularly occurring, nationally significant population/number of any internationally important species.
National	<ul style="list-style-type: none">• A nationally designated site for birds, for instance a Site of Special Scientific Interest (SSSI) or National Nature Reserve (NNR), or a discrete area which meets the published selection criteria for national designation (e.g. SSSI selection guidelines) on ornithological grounds irrespective of whether or not it has yet been notified.• A regularly occurring significant number/population of a nationally important bird species, such as those listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended).• A regularly occurring population of a nationally important bird species that is threatened or rare in the county or region.• An ornithological feature identified as being of critical importance in the UK BAP.
Regional/County	<ul style="list-style-type: none">• A regularly occurring significant population/number of any bird species important at a regional/county level.• Any regularly occurring, locally significant population of a bird species which is listed in a Regional/County RDB or BAP on account of its regional rarity or localisation.• Sites of ornithological conservation importance that exceed the district selection criteria but that fall short of SSSI selection guidelines.

Value of Feature	Key Examples
District/City/Borough	<ul style="list-style-type: none"> • Sites that the designating authority has determined meet the published selection criteria for designation, on ornithological grounds, including Local Nature Reserves selected on District/City/Borough ornithological criteria. • A population of a bird species that is listed in a District/City/Borough BAP because of its rarity in the locality or in the relevant Natural Area profile because of its regional rarity or localisation. • A regularly occurring, locally significant number of a District/City/Borough important bird species during key phases of its life cycle.
Parish/Local	<ul style="list-style-type: none"> • Areas identified in a Local BAP or the relevant natural area profile for their ornithological value. • Local Nature Reserves selected on Parish/Local ornithological criteria. • Significant numbers/population of a locally important bird species e.g. one which is listed on the Local BAP. • Any bird species, populations or assemblages of local importance.
Low	<ul style="list-style-type: none"> • Habitats of moderate to low diversity which support a range of locally and nationally common bird species, the loss of which can be easily mitigated.

4 Results

4.1 Consultation

The West Yorkshire Ecology Service (WYES) was able to supply details of 12 bird species that have been recorded within 2km of the Bradley Villa Farm Site during the last ten years. These species were:

- Owls: Tawny Owl;
- Waterbirds: Kingfisher; and
- A range of passerines and near-passerines: Swallow, House Martin, Dunnock, Song Thrush, Mistle Thrush, Whitethroat, Willow Warbler, House Sparrow, Goldfinch and Bullfinch.

It should be noted that the records provided by WYES are not comprehensive and not based on any structured surveys. They simply reflect those records that have been submitted to the records centre. In addition, the records provided originate from a broad search area of 2km, rather than the specific Proposed Development Site. However, they do provide some indication of species that are likely to occur in the local area.

4.2 Desk Study

4.2.1 Multi-Agency Geographic Information for the Countryside

The Government's 'MAGIC' website confirmed that the Proposed Development Site does not lie within any sites or areas designated or recognised for their international or national ornithological value. Likewise, 'MAGIC' also confirms that no such sites or areas lie within 2km of the Stanley Proposed Development Site.

4.2.2 Birdguides

A search of the online *Birdguides* database produced details of 14 species that had been recorded in the vicinity of Huddersfield November 2000. These species were: Pink-footed Goose, Mandarin Duck, Osprey, Red Kite, Honey Buzzard, Common Crane, White Stork, Mediterranean Gull, Swallow, Water Pipit, Firecrest, Waxwing, Hawfinch and Common Redpoll.

4.2.3 An Atlas of the Breeding Birds of the Huddersfield Area

An Atlas of the Breeding Birds of the Huddersfield Area (Armitage *et al.* 2000) details a total of 113 species recorded in the six 10km squares (SE00, SE01, SE10, SE11, SE20 and SE21), centred around Huddersfield, during surveys undertaken between 1987 and 1992. Although the survey work undertaken recorded species in 2km x 2km tetrads, the layout of the Atlas means that it is difficult to extract data on species occurrence, for a specific site, from the Atlas.

4.3 Field Survey

4.3.1 Breeding Birds 2020

Table 3 details 24 species that were considered to be breeding within the Survey Area (the Proposed Development Site plus a 200m buffer around the site) during 2020. In addition to listing the species considered to be breeding, and the number of breeding pairs/territories of each species, Table 3 also details the ornithological value of each species.

Table 3. Breeding bird population within the Survey Area during 2019.

Species	Number of Pairs		A1 or S1	NERC S41	Red List	Amber List	LBAP
	Within Development Site	Within 200m buffer					
Moorhen	0	1					
Pheasant	0	2					
Swallow	0	2					
House Martin	0	3				✓	
Pied Wagtail	0	1					
Woodpigeon	0	4					
Collared Dove	0	1					
Wren	1	5					
Robin	1	1					
Dunnock	1	1				✓	✓
Blackbird	2	5					
Blackcap	0	2					
Chiffchaff	0	2					
Blue Tit	0	3					
Great Tit	0	1					
House Sparrow	2	4		✓	✓		✓
Starling	0	2		✓	✓		✓
Magpie	0	1					
Jackdaw	0	4					
Carrion Crow	1	2					
Greenfinch	1	1					
Goldfinch	0	1					
Chaffinch	1	2					
Linnet	0	2		✓	✓		✓
<p>A1 or S1 = Species listed on either/both of Annex 1 of the EU Birds Directive and/or Schedule I of the Wildlife & Countryside Act (as amended) 1981;</p> <p>NERC S41 = Species listed in Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006;</p> <p>UK Red = UK Red List Species of Conservation Concern (Eaton <i>et al</i> 2015);</p> <p>UK Amber = UK Amber List Species of Conservation Concern (Eaton <i>et al</i> 2015); and</p> <p>LBAP = Species included on the Tees Valley Local Biodiversity Action Plan.</p>							

5 Site Assessment

5.1 Assessment of Value

5.1.1 Breeding Bird Community: Survey Area

The breeding bird community within the Survey Area (the Proposed Development Site plus a 200m buffer) includes five species of national or local conservation concern. These species are (with conservation status in parenthesis – see Table 3): House Martin (Amber), Dunnock (Amber & LBAP), House Sparrow (Red, NERC S41 & LBAP), Starling (Red, NERC S41 & LBAP) and Linnet (Red, NERC S41 & LBAP).

5.1.2 Breeding Bird Community: Proposed Development Site

The breeding bird community within the actual Proposed Development Site is slightly less diverse than that in the wider Survey Area, as a number of the species breeding within the scrub, plantations and housing in the 200m buffer are not present within the fields and hedgerows in the Proposed Development Site. The breeding bird community within the Proposed Development Site includes two species of national or local conservation concern. These species are (with conservation status in parenthesis – see Table 3): Dunnock (Amber & LBAP) and House Sparrow (Red, NERC S41 & LBAP).

5.1.3 Survey Area Ornithological Evaluation

The Survey Area supports low numbers of a relatively poor range of breeding birds, fairly typical of an urban edge site that is fairly intensively farmed and disturbed. This breeding bird community includes just five species of national or local conservation concern, but is still of some interest for its small populations of a few nationally declining farmland/urban edge species. No declining farmland species were recorded breeding within the fields within the Site/buffer; however the hedges and scrub surrounding the Site held Dunnock, House Sparrow and Linnet. Further afield, the nearby housing provides nesting sites for both House Martin and Starling.

Key species recorded breeding within the Survey Area were as follows:

- Six pairs of House Sparrow were nesting within the Survey Area, with two of these pairs in the Proposed Development Site and the other four pairs in the 200m buffer;
- Two pairs of Starling were nesting within housing in the 200m buffer;
- Two pairs of Linnet were nesting within the 200m buffer around the Proposed Development Site;
- A pair of Dunnock was on territory within the Proposed Development Site, with another pair in the 200m buffer;
- Three pairs of House Martin were nesting on housing within the 200m buffer; and
- A couple of warbler species were breeding within either the 200m buffer around the Site. These species were Blackcap (2 pairs) and Chiffchaff (2 pairs).

The small arable fields, hedgerows, scrub, plantation woodland and urban edge habitats found within the Survey Area can be found relatively commonly throughout West Yorkshire and, to a lesser extent, Kirklees. Although the Survey Area supports a number of species of national conservation concern, as well as several Kirklees BAP species, the number of breeding pairs of each species is quite small (often only 1 or 2 pairs). It is thus considered that the breeding bird community within the Survey Area is not large enough and diverse enough for the Survey Area to be classed as anything other than

Low Ornithological Value for its Breeding Bird Community. The Survey Area holds low numbers of a not very diverse number of breeding species, some of which are declining and of conservation concern both locally and nationally.

5.1.4 Proposed Development Site Ornithological Evaluation

As mentioned above, the actual Proposed Development Site supports a less diverse breeding bird community compared to the wider Survey Area. However, this community still includes two species of national or local conservation concern, Dunnock and House Sparrow.

As detailed above, the small arable fields and hedgerows, all within an urban edge environment, in the Proposed Development Site can be found relatively commonly throughout West Yorkshire and Kirklees. Despite this, the Site still supports a couple of species of conservation concern, albeit in very low numbers. As with the Survey Area, it is considered that the breeding bird community within the Site is not diverse enough to be classed as anything other than of **Low Ornithological Value** for its Breeding Bird Community.

Table 4: Comparison of Proposed Development Site (PDS) and Huddersfield Breeding Populations of BoCC4 Red and Amber List Species

Species	BoCC4 status	Number pairs in PDS	Breeding population in Huddersfield area (Armitage <i>et al.</i> 2000)	Percentage of Huddersfield breeding population in PDS
House Sparrow	Red	2 pairs	3,500 pairs	0.06%
Dunnock	Amber	1 pair	4,000 pairs	0.03%

6 Assessment of Effects

6.1 Potential Construction Effects

During the 2020 breeding season, ten breeding pairs, or territories, of eight species were present within the Proposed Development Site. The Proposed Development Site has been calculated as the footprint of the residential housing plus the associated gardens and service roads. As a worst-case scenario, construction of the housing development, and associated infrastructure, may see all of these territories being lost and the species displaced outside the site.

These species and territories are:

Red List Species: two pairs of one species.

House Sparrow (2 pairs).

Amber List Species: one pair of one species.

Dunnock (1 pair).

Green List Species: seven pairs of six species.

Robin (1 pair), Wren (1 pair), Blackbird (2 pairs), Carrion Crow (1 pair), Greenfinch (1 pair) and Chaffinch (1 pair).

It is considered that construction of the proposed housing would have a **slight adverse** effect on local breeding bird communities, due to the small number of pairs potentially displaced, inclusive of three pairs of two species of national conservation concern (Red and Amber Lists). It can also be concluded that the Proposed Development will only have a very **slight adverse effect** on the county (West Yorkshire) and Borough (Kirklees) breeding bird communities. All of the Red and Amber List species potentially displaced by the Proposed Development currently maintain good breeding populations at both a county and Borough level.

6.2 Potential Operational Effects

It is difficult to predict how the within Site breeding bird community will change/recover following completion of construction operations. However, the provision of new planting and habitats, such as gardens, hedgerow and tree and shrub planting, would provide nesting and foraging opportunities for a range of garden/woodland/scrub species. Species that were recorded breeding within the Survey Area in 2020, and which may make use of the new planting and habitats, could include Woodpigeon, Robin, Dunnock, Blackbird, Great Tit, Blue Tit, Starling, Greenfinch and Chaffinch. In addition, the provision of new housing and garden habitats within the Site is likely to provide new nesting sites for a number of species of national conservation concern that don't currently nest within the Proposed Development Site. These are likely to include classic 'housing estate species' such as House Sparrow, Starling, Swift and House Martin, all of which are declining nationally.

It is therefore considered that, in the short-term, operation of the Site will have a **slight adverse** effect on the local breeding bird population as the effects of displacement through construction are still felt, and new habitats and planting take time to become established enough to provide nesting and foraging opportunities. However, in the medium to long-term, as habitats and planting becomes more established, the impact of the operational site, on the local breeding bird community, is likely to be **negligible**.

6.3 Potential Demolition Effects

The effects of the demolition of the proposed housing development are predicted to be the same as those proposed for the construction phase. Although it is difficult to predict the constituent of the breeding bird community at the Site just prior to demolition, if current populations in the local area are used as an indication to the make-up of the potential breeding population it would be expected to include a range of species typical of garden, woodland, hedgerow and scrub habitats. These habitats are likely to be common and widespread in the local area at the time of demolition. As such, it would be expected that demolition of the housing development would only have a **slight adverse** impact on the breeding bird communities of the local area.

7 Mitigation Strategy

The developer is committed to maintaining and improving the ornithological value of the Proposed Development Site, and surrounding area, and thus the following ornithological mitigation and compensation will be implemented as part of the Proposed Development.

7.1 Construction Period

In order to minimise the risk of harming or disturbing breeding birds, vegetation clearance, and building demolition, works will not be undertaken during the breeding season (1st March to 31st August inclusive) unless a checking survey by an appropriately qualified ornithologist has shown active nests to be absent immediately prior to the start of works. Such prohibited works would also include stripping of areas of low/ground vegetation, soil stripping works and off-track vehicle movements to ensure ground nesting species are not adversely affected.

7.2 Operational Period

Wherever possible, bird nest boxes will be included within the construction of new houses within the Site. Provision of such boxes will enhance nesting opportunities for a range of species within the Site and contribute towards local biodiversity targets. The inclusion of nest boxes suitable for use by a variety of species (hole, open-fronted, terraced and specialist boxes) across the Site would help to further increase the availability of breeding habitat for a range of both common and declining (BoCC 4 Red and Amber list) bird species. All boxes will be woodcrete and placed at eaves level on the two-storey (or higher) properties and at least 4m up in retained mature trees around the edge of the Site. Boxes will be included within the Proposed Development as follows:

- House Martin nest boxes (in groups of 3) will be provided, at eaves level (just under the soffit), on one in every ten new houses on the southern and eastern elevations. Only to be placed on white fascia boards;
- Swift boxes (in groups of 3) will be built into, at eaves level on the eastern elevation, one in every 20 new houses;
- Starling terraces will be built in to one of every ten new houses on the eastern elevation at eaves height;
- House Sparrow terrace boxes will be built in to one of every 10 new houses on the eastern elevation at eaves height; and
- A combination of hole-fronted (26mm and 32mm) and open-fronted boxes will be placed in the existing, and retained, mature trees and hedgerows around the periphery of the site. A total of 20 such boxes will be installed.

Efforts will be made to both strengthen and extend existing wildlife corridors around the boundaries of the Site, through additional native planting, in order to maintain the potential for bird species to move through the area following development of the Site.

Priority within the planting schemes will be given to the use of native species which are ideally of local provenance. This will include a range of nectar and fruit-bearing species which will help to maximise the value of this planting as a foraging resource for both breeding and wintering birds.

Wherever possible, hedgerows around the boundaries of the Site will be retained. These retained hedgerows will benefit from 'gapping up' using a range of locally appropriate native plant species. As well as increasing the botanical value of such features, the implementation of such measures will

help to increase the availability of nesting and foraging habitat for a range of both breeding and wintering birds and increase connectivity between habitats of ornithological value throughout the area.

Particular care will be given to the lighting design as part of the proposed development. Low level lighting, which minimises spill, will be used, with the use of high intensity lighting being avoided near any existing or new habitat of value to breeding and wintering birds.

7.3 Demolition Period

Mitigation against disturbance effects associated with demolition is identical to those proposed for the construction phase.

The developer is happy to commit to the implementation of above measures and is aware that these are likely to be made a condition of any planning consent which may be granted. The implementation of such measures would help to ensure that the Proposed Development does not negatively affect upon those protected species which have been shown to be present, in line with the policies and legislation reviewed in section 1.2.

8 References

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