



Ecological Mitigation and Enhancement Strategy

for

Land at Haverhill – Phase 2B, Suffolk

on behalf of

Persimmon Homes

June 2021

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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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Non-technical Summary

Site:	Land at Haverhill – Phase 2B, Suffolk
Ordnance Survey National Grid Reference:	TL 67313 46783
Report Commissioned by:	Persimmon Homes
Date of report:	June 2021

Considerations	Description	Potential impacts
Production of an ecological mitigation and enhancement strategy	<p>Mitigation measures include timing of vegetation clearance to avoid the nesting bird season and a sensitive lighting scheme for bats.</p> <p>Enhancement measures include creation of new native hedgerows, wildflower grassland and wet wildflower grassland, native tree and shrub planting, provision of bat and bird boxes, provision of hibernacula and hedgehog gaps in fences.</p>	<p>Safeguarding of any protected species using the site during construction. Improvement of conditions on site for bats, birds, great crested newts, small mammals and invertebrates.</p>

1. INTRODUCTION

Background

- 1.1 James Blake Associates Ltd. (JBA) was commissioned by Persimmon Homes to provide an ecological mitigation and enhancement strategy for the proposed development site at land at Haverhill – Phase 2B, Suffolk (Ordnance Survey National Grid Reference: TL 67313 46783, taken from the centre of the site).
- 1.2 The site is applying for planning permission for the development of new residential buildings with associated car parking, open space, associated infrastructure and landscaping.
- 1.3 Phase 2B (the site) is part of a larger development site; Phases 2-6. Various ecological surveys have been carried out on Phase 2B and the larger site as a whole by JBA including;
- Preliminary Ecological Appraisal (JBA January 2019);
 - Great Crested Newt eDNA Survey (JBA June 2019);
 - Reptile Survey (JBA June 2019);
 - Botanical Survey (including Sulphur Clover Survey) (JBA August 2019);
 - Hedgerow Survey (JBA August 2019);
 - Hazel Dormouse Survey Report (JBA December 2019);
 - Breeding Bird Survey (JBA October 2019);
 - Badger Survey (JBA October 2019);
 - Bat Activity (JBA December 2019); and
 - Wintering Bird Survey (JBA February 2020);
- 1.4 This report covers the application site (red-line boundary) and the requirement to provide further details regarding ecological mitigation measures during construction and also details proposed for enhancements.

Site Description

- 1.5 The site is located to the north of Ann Suckling Road, north of Haverhill town in Suffolk. Previously cultivated arable fields (no ruderal vegetation) border the site on the north and western boundary, with residential housing to the south and east. The wider landscape includes mainly arable fields with scattered woodland. Norney Plantation County Wildlife Site (CWS), an area of ancient replanted woodland is located north west and the River Stour lays approximately 1.8km east of the site (see Figure 1 below).

- 1.6 The site itself is primarily tall ruderal vegetation associated with previously cultivated arable land. A hedgerow is present to the northern boundary and fragmented scrub associated with a ditch is located at the western boundary. Hardstanding is adjacent to the southern boundary with an off-site hedgerow and ditch adjacent to the eastern boundary. The site is regularly used by the public for recreational purposes such as dog walking.

Figure 1: Site location plan



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Aims and objectives

- 1.7 The aim of this report is to provide an ecological mitigation and enhancement plan for the site to be used in support of the development.

Wildlife Legislation and Planning Policy

- 1.8 The relevant wildlife legislations and planning policies are listed below:
- Wildlife and Countryside Act, 1981 (as amended) (WCA). [Amended by the Countryside and Rights of Way Act (2000)].
 - The Natural Environment and Rural Communities Act, 2006 (NERC).
 - The Wild Mammals (Protection) Act, 1996.
 - The Hedgerows Regulation, 2007.

2. ECOLOGICAL MITIGATION AND ENHANCEMENT STRATEGY

Purposes and conservation objectives for the proposed works

- 2.1 The purpose of the proposed works outlined within this document is to safeguard any protected species that may be using the site during construction and to enhance the site for wildlife following construction.
- 2.2 The conservation objectives for the proposed works are to retain existing boundary vegetation where possible, to provide an element of native plant species and habitats within the landscape design for open spaces including within the balancing ponds, to provide hedgehog 'links' and to provide bat and bird boxes on retained boundary trees and new dwellings, where appropriate. These measures will contribute to the biodiversity interest of the area in the long term.

Species present on site requiring mitigation

- 2.3 Trees, hedgerows and scrub on the site provide potential nesting and foraging opportunities for birds. During the breeding bird surveys in 2019 (JBA October 2019); fifty-two bird species were recorded on or close to the larger site (Phases 2-6). These included ten Species of Principal Importance (SPI) in England. In terms of the Birds of Conservation Concern (BoCC) categorisation, eight BoCC Red Listed species and ten Amber Listed species were recorded using the site. One Schedule 1 species, Barn Owl, was recorded during the course of another ecological survey. No skylark (*Alauda arvensis*) were recorded using Phase 2B.
- 2.4 During the wintering bird surveys (JBA, February 2020); forty-five bird species were recorded either on the larger site (Phases 2-6) or overflying. These included nine SPI in England. In terms of the BoCC categorisation, BoCC eight Red and eight Amber listed species were recorded using the site. The bird species noted using the site are generally common and widespread. No significant population of interest was recorded.
- 2.5 During the bat surveys in 2019 (JBA, December 2019); no roosts were identified on site. Foraging activity was dominated by common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*), mainly on the northern and eastern boundary. Barbastelle (*Barbastella barbastellus*) was also recorded using the western boundary vegetation. A sensitive lighting strategy is required to ensure that retained boundary features remain unlit by the development.

- 2.6 No reptiles were recorded during the surveys visits in 2019 (JBA, 2019). However, a single record of slow worm (*Anguis fragilis*) was recorded during works on site in 2009 (JBA, 2018). A precautionary method strategy has therefore been produced and it was considered that by following this precautionary method strategy, the development can proceed with minimal risk of harm to the potential population of slow worms using the site.
- 2.7 No evidence of badgers (*Meles meles*) were identified on site in 2019 (JBA, October 2019). Although a pre-commencement badger survey will be undertaken to ensure badger setts are still absent from the site.

Mitigation measures before and during construction

- 2.8 An outline timetable for the implementation of ecological mitigation and enhancement works has been drawn up (see Appendix A).
- 2.9 To summarise, before construction:
- A sensitive lighting strategy to be agreed with the Local Planning Authority (LPA) and Ecologist prior to construction works undertaken on site. Lighting spillage should be restricted on boundary vegetation and proposed vegetation/areas suitable for foraging and commuting bats, such as the SUDS and public open space (POS) adjacent to the south western boundary.
 - Pre-commencement badger survey undertaken within 6 months of the start of works. To ensure no badgers and their setts (if present) are to be impacted by the works.
 - Protective guards to be placed around habitat to be retained, such as hedgerows, ditches, trees etc. to protect from damage during construction.
 - Any areas of habitat which may be used by nesting birds which are required to be cleared should be done outside the nesting season (i.e. outside the period March to August inclusive). If these timings are not possible then a nesting bird check should be carried out by a suitably qualified ecologist/Ecological Clerk of Works (ECoW) no more than 48 hours prior to vegetation/building clearance. If birds are building a nest or sitting on eggs or chicks, then any clearance work should be stopped until all chicks have fledged.

- 2.10 During construction:

- All trenches left open overnight to be covered or an escape ramp provided to enable hedgehogs, other small mammals etc. to climb out.
- Security lighting will be kept to a minimal level (as necessary for safety and security), to be set on short times, and to be sensitive to large moving objects only.
- Bat and bird boxes to be erected/integrated into new buildings. Boxes should not be lit by security lighting.
- Initial landscape planting to take place.

2.11 Following construction:

- Final landscape planting to take place.
- Management and maintenance of ecological features to be undertaken.

Detailed design to achieve the stated objectives

2.12 The detailed soft landscape design for the development has been drawn up by James Blake Associates (JBA, 2021). See Appendix B for detailed soft landscaping proposals.

2.13 There is scope for ecological enhancements to be incorporated within proposed public open spaces, boundary treatments, private gardens and dwellings. The enhancements are based on the recommendations detailed within the species-specific survey reports. The enhancements proposed were as follows:

- Retention and enhancement of existing hedgerows at site boundaries, where possible;
- Planting of native or wildlife-attracting tree, shrub and wildflower species throughout the site;
- Provision of a variety of bird boxes on proposed buildings, where possible;
- Provision of 'Integrated Eco Bat Box' on proposed buildings, where possible; and
- Provision of gaps for hedgehogs in fences (13-15cm x 13-15cm) bordering private gardens to allow their movement through the site, where possible.

- 2.14 Approximately 106 trees are proposed to be planted across the site. Native species include field maple (*Acer campestre*), silver birch (*Betula pendula*) and hornbeam (*Carpinus betulus*). In addition, varieties of native species will be planted as well as non-native trees which will have some ecological value.
- 2.15 Approximately 169m of native hedgerows and 210m of ornamental hedges are proposed to be planted in and around the site. The native hedgerow mix consists of hazel (*corylus avellane*), guelder rose (*Viburnum opulus*), hawthorn (*Crataegus monogyna*), crab apple (*Malus sylvestris*), common holly (*Ilex aquifolium*) and wild cherry (*Prunus avium*). For sections of hedge over easement, the mix comprises shallow rooting species acceptable to the sewer Adopting Authority and these are as per the Anglian Water species list including: *Viburnum tinus*, *Euonymus japonica*, *Spirea japonica*, *Cystisus scoparius* and *Berberis julianae*.
- 2.16 Open space areas at the boundaries if the site will be seeded with wildflower meadow seed mix (Emorsgate Seeds EM2) with some open space sections seeded with floral lawn mix (Emorsgate Seeds EL1). Residential gardens and property frontages will be cultivated turf (Rowlawn Ltd 'Medallion').
- 2.17 Existing boundary vegetation will be retained where possible and enhanced with hedgerow seeded mix. These areas will be suitably managed to ensure establishment in the long-term. Vegetation will also be gapped up with native hedgerow mix to create a buffer where suitable.
- 2.18 The plant species diversity of formal landscaped areas will be increased by the planting of grasses, sedges and shrubs although the majority of these will be non-native.
- 2.19 Ibstock 'Enclosed Bat Box' integrated bat boxes will also be installed on new buildings, particularly to the south of the site.
- 2.20 Schwegler 16S swift boxes, Schwegler kestrel nest box, Schwegler 3SV nest box and Schwegler 1SP sparrow terraces will be integrated onto new buildings, particularly at the north, west and south west of the site facing boundary treatments which will provide foraging and 'community' grounds for birds. The final locations may need be determined by an ECoW during construction.
- 2.21 Reptile hibernacula will be incorporated at a suitable and secluded location to the south west of the site, however final location may need to be determined by the

ECoW during construction. Provisionally, the hibernaculum has been sited by the adjacent SUDS basin/POS south west of the site. The hibernaculum will be constructed by digging a hole and filling it with logs, bricks and stones. Cut vegetation will be placed on top, followed by a layer of soil or upturned turves. For more information, see Wildlife Trust’s “How to build a hibernaculum for amphibians and reptiles” [here](#). Signage will be displaced outside the hibernaculum area to inform public of the importance to keep the habitat undisturbed.

- 2.22 Hedgehog friendly fencing installation will be achieved by leaving gaps in fences (about 13cm x 13cm) between domestic gardens and under gates to allow the free movement of hedgehogs across the site. The final locations will be determined by an ECoW. The location of hedgehog gaps could be marked by a hedgehog highway plaque.

Extent and location of works on scale plans

- 2.23 The suggested locations of selected biodiversity enhancements are given in the detailed soft landscape proposals for the site (JBA 2021) see Appendix B.

Type and source of material to be used where appropriate, e.g. native species of local provenance

- 2.24 The following bird and bat boxes are recommended. Please note that these can be replaced with similar products if not available at time of construction.

To be erected:

- 7 no. Ibstock ‘Enclosed Bat Box’ integrated bat boxes; bat boxes should be integrated into proposed new buildings and south east to south west facing, at least 4m high.
- 2 no. Schwegler 16S swift boxes to be integrated into proposed new buildings; boxes should be south east to south west facing, at least 5-7m high.
- 2 no. Schwegler kestrel nest boxes to be erected on proposed buildings, at a height of at least 5-7m.
- 2 no. Schwegler 3SV nest box to be erected on new buildings, north west to north east facing and at least 3m high.
- 4 no. 1SP Schwegler Sparrow terraces; terraces to be erected on new buildings, north west to north east facing and at least 3m high.

- 2.25 Planting should include trees and shrubs of local provenance where possible. Wildflower planting should use plugs and seed mixes of native origin, such as Emorsgate Seeds.

Timetable to implementation demonstrating that works are aligned with the proposed phasing of development

- 2.26 An outline timetable for the implementation of ecological works has been drawn up (see Appendix A).

Persons responsible for implementing the works

- 2.27 Initial construction works and installing the various forms of enhancement to be implemented by Persimmon Homes Site Management Team and suitable appointed contractors, such as landscape contractors, fencers, brick layers etc.

Details of initial after care and long-term maintenance

- 2.28 Ecologically sensitive management measures should include the following:
- Rotational scrub/hedgerow trimming on a three- or four-year cycle to ensure that a section of the hedgerow can be allowed to bear fruit and seed every year. Inter-planted sections can be trimmed as necessary to prevent them becoming overshadowed. This is achieved by trimming one third of the hedgerow length in any one year and wherever possible leaving one side of each hedgerow uncut each year.
 - Hay cutting of general wildflower grassland in summer in combination with autumn, and possibly spring, mowing. Meadow grassland is not cut from spring through to late July/August to allow species an opportunity to flower and set seed. Undesirable species should be controlled as required.
 - Annual inspection and cleaning of bat and bird boxes by a suitably licensed ecologist.
- 2.29 Post-construction monitoring may be required on the site to assess the effectiveness of the enhancement and mitigation measures for biodiversity, specifically, for birds and bats. Monitoring could include surveys undertaken within the first year of completed construction and fifth year. Monitoring surveys should be undertaken within the bat and bird active season; suggested between April and August.
- 2.30 Where the monitoring survey results show that the aims and objectives of this enhancement and mitigation document are not being met, remedial actions should be undertaken to ensure the long-term biodiversity of the site. Remedial actions could include; provision of extra bird and bat boxes on retained trees and/or new trees (where suitable), extra bird and bat boxes on new buildings (where permission is granted), extra hibernaculum and/or replacement/repair of existing hibernaculum

and gapping up of retained and new hedgerows (where suitable). Other actions may be identified as a result of the monitoring surveys.

- 2.31 Persimmon Homes will be informed of any actions required and will be responsible for ensuring the works are implemented, as necessary.

3. Conclusions

- 3.1 An Ecological Mitigation and Enhancement Strategy has been drawn up which will safeguard nesting birds and other species which may be using the site during construction.

- 3.2 The development will increase the potential of the proposed development site to support wildlife by the addition of new hedgerows and grassland habitats, and the provision of reptile hibernaculum, bat and bird boxes. Suggestions for the management of habitats are included.

References

English Nature (2004) *Guidelines for Developers*. English Nature, Peterborough

James Blake Associates (January 2019) *Preliminary Ecological Appraisal of Haverhill Phases (2-6)*, on behalf of Persimmon Homes Suffolk.

James Blake Associates (June 2019) *Great Crested Newt eDNA Survey of Haverhill Phases (2-6) and Relief road*, on behalf of Persimmon Homes Suffolk.

James Blake Associates (June 2019) *Reptile Survey of Haverhill Phases (2-6) and Relief road* on behalf of Persimmon Homes Suffolk.

James Blake Associates (August 2019) *Botanical Survey (including Sulphur Clover Survey) of Haverhill Phases (2-6) and Relief road*, on behalf of Persimmon Homes Suffolk.

James Blake Associates (August 2019) *Hedgerow Survey of Haverhill Phases (2-6) and Relief road*, on behalf of Persimmon Homes Suffolk.

James Blake Associates (October 2019) *Breeding Bird Survey of Haverhill Phases (2-6) and Relief road*, on behalf of Persimmon Homes Suffolk.

James Blake Associates (October 2019) *Badger Survey of Haverhill Phases (2-6) and Relief road*, on behalf of Persimmon Homes Suffolk.

James Blake Associates (December 2019) *Bat Activity of Haverhill Phases (2-6) and Relief road*, on behalf of Persimmon Homes Suffolk.

James Blake Associates (December 2019) *Hazel Dormouse Survey of Haverhill Phases (2-6) and Relief road*, on behalf of Persimmon Homes Suffolk.

James Blake Associates (February 2020) *Wintering Bird Survey of Haverhill Phases (2-6) and Relief road*, on behalf of Persimmon Homes Suffolk.

National Planning Policy Framework (2019) ISBN: 9781409834137

JBA (2021) *JBA 18/351-43 Detailed Landscape Proposals for Plots and POS For Phase 2B*.

Web references:

MAGIC:

<https://magic.defra.gov.uk/>

Wildlife trust:

<https://www.wildlifetrusts.org/actions/how-build-hibernaculum-amphibians-and-reptiles#:~:text=Hibernacula%20are%20underground%20chambers%20that,ponds%2C%20bogs%20and%20compost%20heaps>

Appendix A. Suggested outline timetable for implementation of ecological works

Timings		Feature/species of interest	Action	Person responsible
When to Undertake	Year			
Prior to any works commencing on site	2021-2022	Badger	Pre-commencement badger survey.	Ecologist
Prior to any works commencing on site	2022	All ecological features	Toolbox talk to include all the ecological measures relevant to construction.	Ecological Clerk of Works (ECoW)
Prior to construction starting on site	2022	Retained habitats, trees etc.	Erect protective fencing around features to be retained.	Site manager with advice from ECoW
Prior to vegetation/building clearance	2022	Vegetation to be lost to development	Clearance of vegetation outside bird nesting season or with a clear nesting bird check. Nesting season is deemed to be from March to August/September.	Site manager with advice from ECoW
During construction	From 2022	Small mammals etc.	Trenches to be covered overnight or escape ramp left to enable animals to find their way out.	Site manager
During construction	From 2022	Bats and birds	Bird and bat boxes to be erected on new dwellings at time of build.	Site manager with advice from ECoW
During construction	From 2022	Hedgehogs	Hedgehog gaps to be created in fences at time of build.	Site manager with advice from ECoW
As required	From 2022	Reptiles	Creation of reptile hibernaculum	Site manager with advice from ECoW
Autumn/winter	From 2022	Retained tree and hedgerow habitat and new hedgerow creation	Coppicing, thinning, shrub planting etc. as required	Site manager with advice from ECoW and arboriculturalist
During construction - Spring/summer/autumn	From 2022	Wildflower meadow creation	Preparation of substrate, sowing seed, removing any invasive weed species etc.	Site manager under ECoW supervision
Post-construction monitoring (if required)	Summer of 1 st and 5 th year post-construction	All ecological features	Monitoring of success of habitat management and creation and reporting. Implement changes to management if monitoring indicates concerns.	ECoW

Appendix B. Detailed soft landscaping proposals and location of ecological enhancements on plans

