



Preliminary Ecological Appraisal

Land South of Barrow Green Road, Oxted, Surrey

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LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date.

This report provides a snap shot of the species that were present at the time of the survey only and does not consider seasonal variation. Furthermore, where access is limited or the site supports habitats which are densely vegetated only dominant species maybe recorded.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

Background

1.1 The Ecology Partnership was commissioned by Croudace Homes to undertake a preliminary ecological appraisal (PEA) of land south of Barrow Green Road, Oxted, Surrey, known as Stoneyfields. This is in support of an outline planning application for the site.

1.2 The key objectives of a PEA (CIEEM 2017) are to:

- Identify the likely ecological constraints associated with a project;
- Identify any mitigation measures likely to be required, following the 'Mitigation Hierarchy' (CIEEM 2016; BSI 2013, Clause 5.2);
- Identify any additional surveys that may be required to inform an Ecological Impact Assessment (EcIA); and
- Identify the opportunities offered by a project to deliver ecological enhancement.

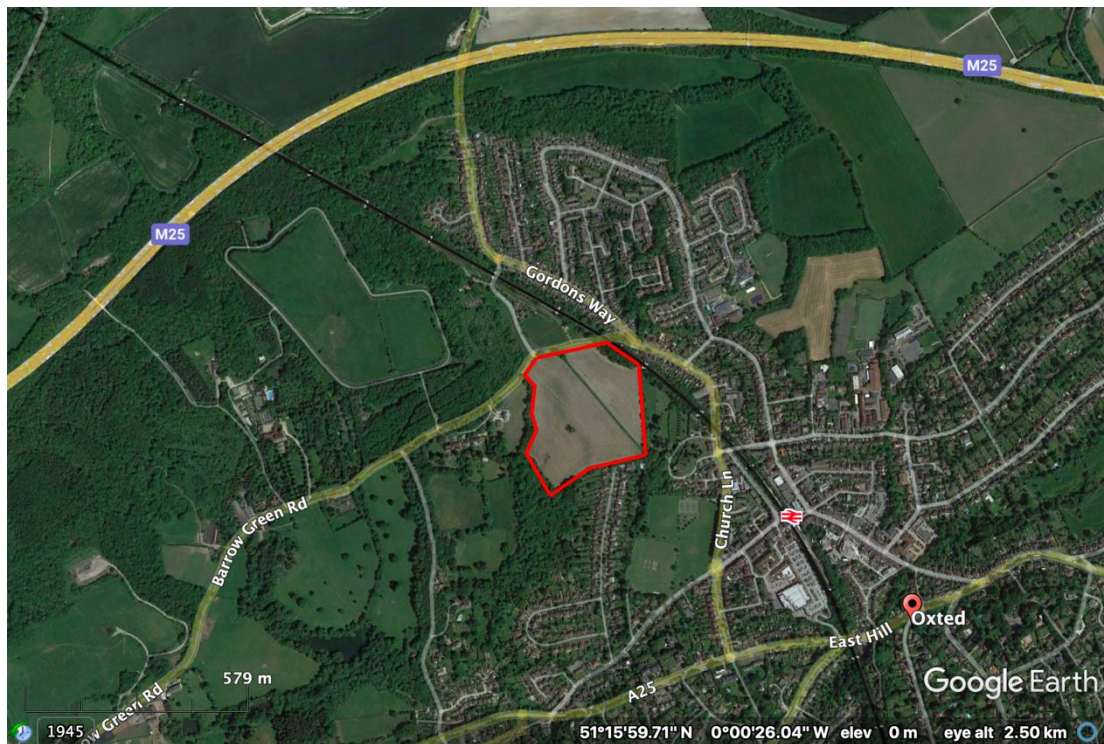
1.3 This report comprises the:

- Legislative and planning context (Section 1);
- Assessment methodologies (Section 2);
- Results (Section 3);
- Implications for development (Section 4);
- An impact assessment (Section 5); and
- Conclusions (Section 6).

Site Context and Status

1.4 The site comprises an arable field with small areas of woodland at the northern and southern edges. The site is approximately 9.7ha and located on the north-western edge of Oxted, bound by Barrow Green Road and a railway corridor to the north, a cemetery to the east, residential housing and gardens to the south, ancient woodland to the south-west and a small ephemeral stream to the west (TQ 387 531). The wider surrounding area comprises residential areas to the north, east and south, with extensive woodland and private green space to the west.

- 1.5 The extent of the site is shown in Figure 1 below in wider context and in Figure 2, a closer view of the site boundary and survey area.



*Figure 1: Approximate location of the red line boundary showing the wider landscape
Satellite imagery obtained from Google Earth Pro on 24/03/2022*



*Figure 2: Approximate location of the red line boundary
Satellite imagery obtained from Google Earth Pro on 24/03/2022*

Description of the Proposed Development

- 1.6 Outline application for a residential development of up to 190 dwellings (including affordable homes) (Use Class C3), an extra care facility with up to up 80 beds (Use Class C2), together with the formation of vehicular access, landscaping, parking, open space, green and blue infrastructure, and all other associated development works. All matters reserved except access.

Planning Policies

- 1.7 The outline application was assessed against policy guidance provided by the National Planning Policy Framework, as well as relevant planning policies from the Tandridge Local Plan 2014-2029. A single policy was considered relevant to ecology, biodiversity and nature conservation:
- DP19: Biodiversity, Geological Conservation & Green Infrastructure
- 1.8 This report addresses the site in relation to nature conservation and wildlife and indeed to the local planning requirements as well as national planning and nature conservation legislation.
- 1.9 The Environment Bill (Environment Act 2021) received Royal Assent on 9th November 2021 and is now enacted as the Environment Act 2021. Part 6 (Nature and Biodiversity) and Schedule 14 of the Environment Act 2021 insert a new section 90A and Schedule 7A into the Town and Country Planning Act 1990 (TCPA), which contain the provisions requiring mandatory biodiversity net gain for development granted planning permission pursuant to the TCPA. These provisions require developments to provide a biodiversity value post-development that exceeds the predevelopment biodiversity value of the onsite habitats by at least 10%. This was adopted in February 2024 although there are a number of exemptions which may mean that biodiversity net gain is not required. These are listed under government guidance and are as follows:
- Development below a de minimis threshold;
 - Householder applications;
 - Small scale self-build and custom housebuilding;
 - HS2; and
 - Biodiversity net gain sites.

1.10 The site has therefore been surveyed to assess its ecological value and to ensure compliance with national and local plan policies and other relevant nature conservation legislation including; Wildlife and Countryside Act 1981, Natural Environment and Rural Communities Act 2006, and the Conservation of Habitats and Species (EU Exit) Regulations 2019.

1.11 The report has been produced with reference to current guidelines for PEA (CIEEM 2017) and in accordance with BS 42020:2013 Biodiversity – Code of Practice for Planning and Development.

2.0 Methodology

Desktop Study

2.1 A desktop study search was completed using an internet-based mapping service (www.magic.gov.uk) for statutory designated sites and an internet-based aerial mapping service (maps.google.co.uk) was used to understand the habitats present in and around the survey area and habitat linkages and features (ponds, woodlands etc.) within the wider landscape. Data for non-statutory sites, and local protected and notable species within 2km of the site was obtained from Surrey Biological Information Centre (SBIC).

Preliminary Ecological Appraisal

2.2 An extended preliminary ecological appraisal was undertaken on 3rd May 2022 by principal ecologist Matt Pendry BSc (Hons) MCIEEM and assistant ecologist Cameron Allaway BSc (Hons) QCIEEM. The surveyors identified the habitats present, following the standard 'UK Hab' auditing method. The site was surveyed on foot and the existing habitats and land uses were recorded on an appropriately scaled map (JNCC 2010). Repeat visits to the site were made as part of reptile and dormouse survey across the year and any previously unrecorded plant species were also recorded during these visits. An update site walkover was also undertaken on the 26th September 2024, to confirm that no significant changes to the habitats on site had occurred, and the habitat map in Appendix 2 was subsequently updated.

Protected Species Assessments

- 2.3 Any evidence of protected species was recorded. Standard methods of search and measures of presence, or likely presence based on habitat suitability were used for bats in trees and buildings (Collins 2016), breeding birds¹, dormouse (Bright *et al.* 2006), great crested newt (ARG 2010), reptiles (Froglife 2015), badgers (Creswell *et al.* 1990) and water vole (Strachan *et al.* 2011).

Limitations

- 2.4 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no single investigation could ensure the complete characterisation and prediction of the natural environment.
- 2.5 The protected species assessment provides a preliminary view of the likelihood of protected species occurring on-site, based on the suitability of the habitat and any direct evidence on site. It should not be taken as providing a full and definitive survey of any protected species group. The assessment is only valid for the time when the survey was carried out. Additional surveys may be recommended if, on the basis of this assessment it is considered reasonably likely that protected species may be present.

3.0 Results

Desktop Study

- 3.1 The site does not fall within or adjacent to any nationally or internationally designated sites. There are no internationally designated sites within 10km, and a single nationally designated site within 2km:
- Woldingham & Oxted Downs Site of Special Scientific Importance (SSSI), located c.1km north of the site, and designated for its chalk grassland, orchids and rare invertebrates.

¹<https://www.bto.org/our-science/projects/birdatlas/methods/breeding-evidence>

3.2 In terms of non-statutory designations, there are seven Sites of Nature Conservation Importance (SNCI) and two Conservation Verges (CV), within 2km of the site (Figure 4):

- Five Acre Shaw and Lodge Wood SNCI: 150m north-west; designated for its ancient woodland
- Armitage Wood and Hamfield Shaw SNCI: 430m north, designated for its ancient woodland
- Chalkpit Wood:, 500m north, designated for its ancient woodland
- Robins Grove Wood & Rye Wood SNCI, 730m west, designated for its ancient woodland
- Titsey Plantation SNCI, 1km north, designated for its extensive woodland
- Chalkpit Lane CV: 1.3km north; designated for supporting rare/scarce plant species: Lesser Hairy-brome *Bromopsis benekenii* & Greater Burnet-saxifrage *Pimpinella major*
- Limpsfield Common SNCI, 1.3km south-east, designated for its mosaic of woodland, scrub, unimproved acid grassland, & relict heath.
- Hell Shaw SNCI, 1.7km north, designated for its ancient woodland.
- Oast Road, 1.7km south, designated for being an important crossing point for a significant population of common toad *Bufo bufo*

3.3 It should also be noted that a 'Potential SNCI' is located adjacent to the south-west of the site 'The Bogs', although it does not currently have an official designation.

3.4 The site is surrounded by a number of priority habitats (Figure 3), including:

- Numerous parcels of **ancient woodland**, including a c.2.2ha area adjacent to the southern boundary.
- A greater number of priority **deciduous woodland** parcels, including an area which overlaps the southern site boundary.
- Two areas of **traditional orchards** priority habitat, the closest being 20m north of the site on the opposite side of Barrow Green Road, and the other located c.90m to the west.
- An extensive area of **woodpasture and parkland** is located at Barrow Green Court, and Barrow Green Gardens, approximately c.220m west of the site.



Figure 3: Deciduous Woodland (dull green), ancient woodland (brown vertical hatching), traditional orchard (lime green) and parkland (pale green) in the vicinity of the site

- 3.5 OS mapping found no waterbodies on site. There appears to be a single waterbody within 250m of the site (Figure 4). This is located within a private garden 14m south-west of the site.

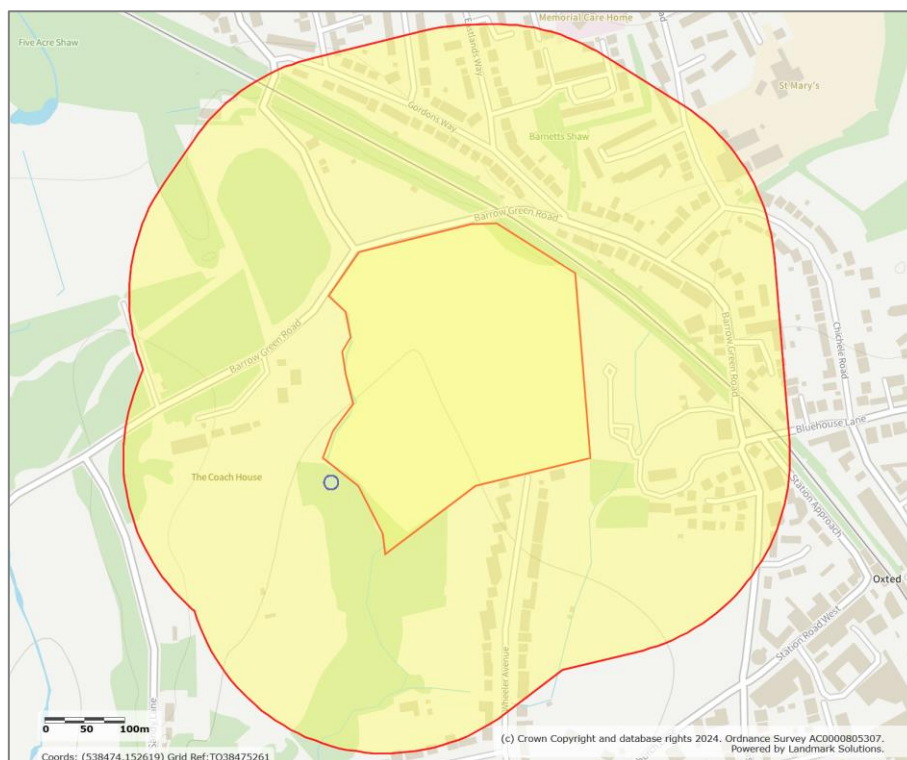


Figure 4: Waterbodies within 250m of the red line boundary.

- 3.6 A search revealed four European Protected Species Mitigation (EPSM) licences within 2km of the site, but no GCN licence returns. These are summarised in Table 1 below:

Table 1: ESPM licences within 2km of the site

Species	Distance from site	Date	Type	Case reference
Common pipistrelle,	325m south	07/12/2016 – 07/12/2016	Destruction of a resting place	2016-26988-EPS-MIT
Common pipistrelle	630m south	23/03/2016 – 22/03/2021	Destruction of a resting place	2016-20452-EPS-MIT 2016-20452-EPS-MIT-1
Hazel dormouse	700m north	21/05/2020 – 31/12/2025	Damage/destruction of breeding site/resting place	2020-47344-EPS-MIT
		03/07/2020 – 31/12/2025		2020-47344-EPS-MIT-1
Common pipistrelle	740m east	21/03/2017 – 31/03/2022	Destruction of a resting place	2017-28046-EPS-MIT

- 3.7 A 2km records search was requested from SBIC. The records closest to site, recorded within the last 10 years and relevant to the habitats on site have been included in Table 1.

Table 1: Notable species records within 2km of the site in the last 15 years

Species	Status	Distance from site	Date of record
White admiral <i>Limenitis camilla</i> (1 record)	NERC Act (2006) Section 41	1.5km west	07/02/2018
Roman snail <i>Helix pomatia</i> (6 records)	Wildlife and Countryside Act 1981 (as amended);	1km north	04/07/2019
Adder <i>Vipera berus</i> (1 record)	Wildlife and Countryside Act 1981 (as amended); NERC Act (2006) Section 41	1.2km west	June 2010
Common lizard <i>Zootoca vivapera</i> (3 lizard)	Wildlife and Countryside Act 1981 (as amended); NERC Act (2006) Section 41	775m north	June 2010
Grass snake <i>Natrix natrix</i> (2 records)	Wildlife and Countryside Act 1981 (as amended); NERC Act (2006) Section 41	1.2km west	June 2010
Slow worm <i>Anguis fragilis</i> (3 lizard)	Wildlife and Countryside Act 1981 (as amended); NERC Act (2006) Section 41	775m north	June 2010
Dormouse <i>Muscardinus avellanarius</i> (6 records)	Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5; NERC Act (2006) Section 41	570m south-west	09/01/2009
Brown long-eared bat <i>Plecotus auratus</i> (3 records)	Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife	800m north	September 2010

	and Countryside Act (1981 as amended) Schedule 5		
Common pipistrelle <i>Pipistrellus pipistrellus</i> (5 records)	Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5	320m south	08/04/2014
Soprano pipistrelle <i>Pipistrellus pygmaeus</i> (2 records)	Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5	1.1km west	September 2010
Noctule <i>Nyctalus noctula</i> (1 record)	Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5	1.3km west	September 2010
Bullfinch <i>Pyrrhula pyrrhula</i> (1 record)	Wildlife and Countryside Act 1981 (as amended); Amber BoCC	1.6km south-east	16/08/2017

Phase 1 Habitat Survey

3.8 The site is primarily made up of a large single arable field intersected from north to south-east by a footpath, bordered by bands of linear scrub, as well as a small block of woodland in the north, and the edge of an extensive woodland to the south, and an ephemeral stream along the western boundary.

Cereal crop (c1c)

3.9 The majority of the site was made up of arable land used for cereal crop production.

Other neutral grassland (g3c)

3.10 The margins of the field including either side of the central footpath that runs through the site were comprised of tall sward grassland. This comprised abundant false oat-grass and perennial rye grass, with frequent cock's-foot. Flowering species included frequent greater burdock, cow parsley, white clover, and common nettle, with occasional creeping thistle, broad-leaved dock, cleavers, common hogweed, white dead-nettle, pineapple weed, and scentless mayweed.

Lowland mixed deciduous woodland (w1f)

3.11 The northern corner of the site featured an area of broad-leaved woodland, with an informal footpath running through it. The canopy comprised abundant pedunculate oak, with occasional ash and sycamore. The understorey was relatively sparse and

comprised occasional hawthorn, hazel, field maple, holly, and elder. The ground flora included frequent wood anemone, British bluebell, cow parsley, ivy, wood meadow grass and bramble, with occasional garlic mustard, ramsons, false woodbrome, enchanter's nightshade, herb Robert, wood avens, ground ivy, dog's mercury, lesser celandine, and creeping buttercup. The woodland in the south of the site was similar in the drier areas in its western and eastern extents,.

Wet woodland (w1d)

- 3.12 Wet woodland however, changes to alder dominated wet woodland in the southern corner of the site, with nettles dominating the ground flora along with frequent pendulous sedge and under-story restricted to rare occurrences of elder

Hedgerow (h2)

- 3.13 There was a single native hedgerows within the site, located along the northern site boundary adjacent to Barrow Green Road. This was short and heavily managed from the roadside and were dominated by hawthorn. with rare occurrences of field maple, dog rose, wayfaring tree, and ash and sycamore saplings. Traveller's joy and ivy were also occasional within the hedge. Historically hedgerows may also have occurred around parts of the site boundaries however, these have now grown out and exceed 5m in depth and are therefore considered linear scrub.

Mixed scrub (h3h)

- 3.14 There were bands of mixed scrub along the western, and southern boundaries of the site as well as a smaller area in the north of the site. This featured abundant hawthorn, with frequent bramble, and occasional field maple, hazel, ash, holly, blackthorn, dog rose, goat willow and elder.

Bramble scrub (h3d)

- 3.15 The boundaries in the east and north-west of the site were dominated by bramble and common nettle, with abundant greater burdock and frequent cleavers, cow parsley, and hedge bindweed.

Protected Species

Bats

- 3.16 The site has good connectivity to suitable bat habitat within the surrounding area including extensive woodland, as the woodland, and boundary scrub and hedgerows

within the site itself provides suitable foraging habitat. As such, the site is considered to have moderate potential for commuting and foraging bats.

- 3.17 Numerous mature trees along the site boundaries and woodlands were considered to have potential for roosting bats, however a full ground-based tree assessment was only carried out on those at risk of loss or impact from the development. A single mature oak in the south-western field, was determined to be of high value to roosting bats, owing to a number of holes, which may lead into cavities within the tree. No other trees at risk of loss or significant impact displayed feature of value to roosting bats.

Dormouse

- 3.18 The site contains suitable woodland and scrub habitat for dormice. Furthermore, an EPSM licence for dormouse was carried out 700m to the north, and a dormouse record was also present 570m to the south-west of the site in 2009. There is numerous, and extensive woodland in the surrounding area, much of it ancient, including the woodland adjacent to the south of the site. This would provide sufficient habitat to support populations of dormouse in the local area.

- 3.19 As such, the site is considered to have potential to support dormouse.

Great crested newt

- 3.20 The data search identified a single water body within 250m of the red-line boundary, however, this was in private land close to the south-western site boundary. The landowner was sent a letter enquiring about the suspected water body, they then contacted The Ecology Partnership to confirm that this pond shown on the map related to an old Victorian swimming pool, and has been defunct for decades, and does not hold water. The data search did not return any recent records for GCN and historic records (1970-1991) were over 1.1km to the south-east on the opposite side of Oxted.

- 3.21 As such, the site is considered to have negligible potential to support GCN and they are not mentioned further in this report.

Badgers

- 3.22 No evidence of badger setts, individual holes or latrines were recorded on site.

Reptiles

- 3.23 The longer sward grassland, woodland, tree line edges, and scrub edge habitats on site are suitable to support common reptile species such as slow worm, common lizard. Overall, the site is considered to have potential to support reptiles.

Breeding birds

- 3.24 Woodland and scrub on site provide suitable nesting habitat for breeding birds. As such, the site is considered to have potential to support breeding birds.

Other Species

- 3.25 Owing to a lack of suitable habitat on site and within the surrounding area, no potential for any other protected species, such as otters and water voles, was identified within the site.
- 3.26 Due to the suitable tree lines, scrub and woodland habitat on site in addition to records in the local area, the site is considered to have potential to support hedgehog.

4.0 Discussion

- 4.1 The following paragraphs consider the effects of the development on designated sites, priority habitats and protected and priority species. Where the desk study and Phase 1 survey provide sufficient evidence for an assessment of effects on any of these groups to be taken through planning, these are detailed below, the need for additional surveys and when and how these should be completed are summarised, if required.

Effects on designated sites

- 4.2 The site does not fall within any statutory or non-statutory designated sites. In addition, there are no internationally designated sites within 10km of the site and only a single national statutory designated site within 2km: Woldingham & Oxted Downs SSSI. The site does lie within the SSSI Impact Risk Zone, however, the development is not listed as the type that would require the LPA the request consultation with Natural England. The proposed development may result in a minor increase in recreational pressure on this SSSI. As such, it is recommended that sufficient open space is provided within the development boundary to encourage recreation to be largely contained within the site itself and immediate surrounding area.

- 4.3 The site is located within 2km of seven SNCIs and two CVs. However, much of these sites are located on private land, or are well beyond walking distance of the site. As such, this development is not expected to have any significant negative direct or indirect effects on any non-statutory designated sites.

Effects on Priority Habitats

- 4.4 Two priority habitats are located on site: lowland mixed deciduous woodland, wet woodland, and native hedgerows. It is recommended that these habitats be retained within the masterplan, protected throughout construction and enhanced. Any unavoidable lost should be compensated for through creation of new like for like habitat to be managed to the higher condition.

Effect on other habitats

- 4.5 The linear bands of scrub and grassland around the edge of the site provide wildlife corridors, allowing animals to safely traverse the site from the southern woodland to the northern woodland. The habitat corridors are considered to be of local value to wildlife and should be retained, protected and enhanced within the masterplan. Any unavoidable lost should be compensated for through creation of new like for like habitat to be managed to a higher condition.
- 4.6 The remaining arable land within the site is of limited value to wildlife and therefore of site value only.

Protected Species

Bats

Trees

- 4.7 A full ground-based assessment was not done for the majority of trees on site particularly those in the woodland areas, as these are to be retained in their entirety. A single large mature oak in the west of the site was considered to have high potential to support roosting bats. It is recommended that this tree and all other mature and semi-mature trees on site be retained, protected, and not subject to any significant increase in artificial light. The only trees to be lost are a small group of semi-mature elms along the southern boundary. None of these tree displayed features of value to roosting bats.

Bat foraging and commuting potential

- 4.9 The linear habitats and woodlands onsite provided suitable habitat for commuting/foraging bats. Bat activity surveys have since been carried out on site between May and October. Full mitigation recommendations are provided in the accompanying report (The Ecology Partnership, 2022c).

Dormice

- 4.10 The woodland and scrub habitats were considered to have potential to support dormice. The commuting habitat provides connectivity between the site and extensive ancient woodland habitats in the wider surrounding area to the south-west and north-west of the site.
- 4.11 A dormouse presence/likely absence survey has since been carried out on site, confirming a likely absence of dormouse. Recommendations are provided in the accompanying report (The Ecology Partnership, 2022a).

Reptiles

- 4.12 The grassland along the woodland and scrub edge provided suitable habitat for common reptiles due to the longer sward providing shelter and foraging opportunities.
- 4.13 A reptile presence/likely absence survey has since been carried out on site, identifying a good population of slow worm around the field margins in the north-east, south and west. Full mitigation recommendations are provided in the accompanying report (The Ecology Partnership, 2022b).

Nesting Birds

- 4.14 The scrub, woodland, and trees on site all have the potential to support nesting birds. If the removal of any of these features is to be carried out, this should be done outside of the breeding bird season (March-September inclusive) or immediately after a nesting bird check by a suitably qualified ecologist. If active nests are identified, works in the vicinity of the nest must cease until the birds have fledged the nest.

Badgers

- 4.15 No evidence of badgers were identified on site. However, badgers are a mobile species and could establish new setts within the suitable woodland and scrub habitat within

the site. Therefore, it is recommended that an update badger survey is carried out prior to development to ensure no new evidence of badgers is found onsite.

Other Species

- 4.16 No potential for any other protected species, such as water voles or otters was identified within the site.
- 4.17 The site has potential to support hedgehog. Whilst receiving no specific legal protection, they are protected from certain forms of harm under the wild mammals (Protection) Act 1996. There is a risk that without mitigation, vegetation clearance on site may result in mutilation or crushing of hedgehog nesting in brash piles. As such, it is recommended that areas of dense vegetation needing clearance are cut in two stages, the first to 300mm, then then the second to ground level after the area has been searched for hedgehog. If any are found, they will be safely move to a suitable brash pile outside the clearance area.

Ecological Enhancements

- 4.18 The site is currently considered to support habitats of ecological value, it is therefore important that considerations are given in the masterplan towards maintaining and enhancing on-site habitat and connectivity with the wider landscape post-development.
- 4.19 It is recommended that a detailed mitigation and enhancement strategy is drawn up for the site based on the findings of the Phase 2 protected species surveys and through the review of the proposals. This will include but not be limited to the following:
- Creation of new high distinctiveness habitats such as traditional orchard, and ponds, and enhancement of and expansion of existing habitats of value including woodlands, scrub and wildflower grasslands to be managed in the long term for biodiversity;
 - Installation of specialist bird, & bat boxes on retained mature trees within the site, and,
 - Creation of log piles and reptile hibernacula to provide safe refuge and hibernation sites for reptiles, amphibians, and hedgehog.

- 4.20 A detailed enhancement strategy will be dependent on the results of the phase 2 surveys. This is likely to include the general recommendations above, but also more details recommendations such creation of high distinctiveness habitats.

5.0 Impact Assessment

- 5.1 A separate impact Ecological Impact Assessment (EcIA) has been carried out as part of the Ecology Chapter for the Environmental Statement.

6.0 Conclusions

- 6.1 The site was made up of a large arable field bounded by belts of scrub, a hedgerow, a parcel of woodland to the north, and the edge of a large wet woodland to the south of the site.
- 6.2 The site is not located within a designated site and does not lie within 10km of any international statutory designated sites. A single national statutory designation and nine non-statutory designations are located within 2km comprising a SSSI, seven SNCI's and two CVs, however they are of a significant distance away to not be affected by this development on the basis that sufficient green open space is provided within the development.
- 6.3 Woodland and hedgerow priority habitat is present on site. The majority of remaining habitat on site was considered to be common and widespread throughout the UK and as such these features are of limited ecological interest. Notwithstanding this, it is recommended that scrub belts, hedgerows and woodland which are considered to be of greater ecological value are retained and protected within the development, and enhanced post development. Any unavoidable loss of this habitat will require creation of adequate compensatory new habitat.
- 6.4 A mature oak in the west of the site had high potential to support roosting bats. As such, it is recommended that this tree is retained and protected from development and not subject to any significant increase in artificial light.
- 6.5 Numerous mature trees within the woodland on site likely potential to support roosting bats, however, a full ground based assessment was not carried out. It is recommended that these are retained and protected from development and not subject

to any significant increase in artificial light. The only trees to be lost comprise a small number of semi-mature elm and were considered to have negligible potential to support roosting bats, and therefore no further survey is required.

- 6.6 The site contains linear habitats, and woodland edge providing suitability for foraging and commuting bats. Monthly bat activity surveys are recommended between April and October to establish the use of the site by bats. A separate bat activity survey and report has since been undertaken. Results are detailed within this report
- 6.7 Treelines and scrub on site were suitable to support dormouse. A separate dormouse survey and report has since been undertaken. Results are detailed within this report.
- 6.8 The longer sward grassland and edge habitats on site are considered to provide suitable habitat for common reptile species. A separate reptile survey and report has since been conducted and a separate report has been provided.
- 6.9 Woodland and scrub on site have the potential to be used by birds as nesting habitat during the breeding season. The UK breeding season for most bird species takes place between March and September. Ideally, work affecting these areas should be avoided during this period. If unavoidable, it is recommended that any works affecting trees and scrub on site should be carried out under ecological watching brief.
- 6.10 No evidence of badger setts or latrines was identified on site, however, due to their mobility, it is recommended that an update survey be carried out in advance of any works on site that may disturb them.
- 6.11 Recommendations for enhancements have been made within this report, aimed at improving the ecological value of the site post-development.

7.0 References

ARG (2010) *UK Advice Note 5: Great crested newt habitat suitability index*. Amphibian and Reptile Groups of the United Kingdom.

Bright, P., Morris, P. & Mitchell-Jones, T. (2006) *The Dormouse Conservation Handbook*. 2nd edition. English Nature.

CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal, 2nd Edition*. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.

Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). Bat Conservation Trust, London.

Creswell, P., Harris, S. & Jeffries, D.J. (1990) *The history, distribution status and habitat requirements of the badger in Britain*. Nature Conservancy Council, Peterborough.

English Nature (2004) *Reptiles: guidelines for developers*. English Nature, Peterborough.

Joint Nature Conservation Committee (2010) *Handbook for Phase 1 habitat survey – a techniques for environmental audit*. JNCC, Peterborough.

Institution of Lighting Professionals (ILP – 2018) *Guidance Note 08/18 – Bats and artificial lighting in the UK*. ILP, Rugby.

Langton, T.E.S., Beckett, C.L. & Foster, J.P. (2001) *Great Crested Newt Handbook*. Froglife, Halesworth.

Mitchell-Jones, A.J. (2004) *Bat Mitigation Guidelines*. English Nature, Peterborough.

Natural England (2011) *Badgers and Development: A guide to best practice and licensing*. Natural England, Bristol.

Neal, E. & Cheeseman, C. (1996) *Badgers*. T & A D Poyser Ltd. London.

Stone, E.L., Jones, G., Harris, S. (2009) Street lighting disturbs commuting bats. *Current Biology*, **19**: 1123-1127.

The Ecology Partnership (2020a) Land South of Barrow Green Road, Oxted – Dormouse Survey.

The Ecology Partnership (2020b) Land South of Barrow Green Road, Oxted – Reptile Survey.

The Ecology Partnership (2020c) Land South of Barrow Green Road, Oxted – Bat Activity Survey




Wilson, G.J., Harris, S. & McLaren, G. (1997) *Changes in British badger population, 1988-1997*. People's Trust for Endangered Species, London.




Internet resources:




Google Maps: www.google.co.uk/maps

Magic Interactive Map: www.magic.gov.uk

Appendix 1: Photos

<p>Photograph 1: Field margin and woodland in the north-east of the site (May 2022)</p>	
<p>Photograph 2: Woodland in the northern corner of the site. (May 2022)</p>	
<p>Photograph 3: Hedgerow along north-western site boundary. (May 2022)</p>	

<p>Photograph 4: Small ephemeral stream adjacent to the western site boundary. (May 2022)</p>	
<p>Photograph 5: Wet woodland in the south of the site. (May 2022)</p>	
<p>Photograph 6: Southern corner of the arable field. (May 2022)</p>	

<p>Photograph 7: Mature oak with moderate bat potential in the south-west of the site. (May 2022)</p>	
<p>Photograph 8: Southern arable field and wet-woodland beyond to the south. (May 2022)</p>	
<p>Photograph 9: Southern arable field and woodland/mixed scrub beyond to the west. (May 2022)</p>	

Appendix 2: Habitat Map



Appendix 3: Species List

LATIN	ENGLISH	Abundance
Field and margins		
<i>Actium lappa</i>	Greater burdock	A
<i>Arrhenatherum elatius</i>	False oatgrass	A
<i>Lolium perenne</i>	Perennial ryegrass	A
<i>Poa annua</i>	Annual meadowgrass	A
<i>Anthriscus sylvestris</i>	Cow parsley	F
<i>Dactylis glomerata</i>	Cock's-foot	F
<i>Trifolium pratense</i>	White clover	F
<i>Urtica dioica</i>	Common nettle	F
<i>Cirsium arvense</i>	Creeping thistle	O
<i>Galium aparine</i>	Cleavers	O
<i>Heracleum sphondylium</i>	Common hogweed	O
<i>Lamium alba</i>	White dead-nettle	O
<i>Matricaria discoidea</i>	Pineappleweed	O
<i>Rumex obtusifolius</i>	Broad-leaved dock	O
<i>Tripleurospermum inodorum</i>	Scentless mayweed	O
<i>Cirsium vulgare</i>	Spear thistle	R
<i>Chenopodium alba</i>	Fathen	R
<i>Jacobaea vulgaris</i>	Common ragwort	R
<i>Plantago major</i>	Greater plantain	R
<i>Senecio vulgaris</i>	Groundsel	R
<i>Tanacetum parthenium</i>	Feverfew	R
Woodland/scrub/hedgerows		
<i>Alnus glutinosa</i>	Alder	D
<i>Urtica dioica</i>	Common nettle	D
<i>Crataegus monogyna</i>	Hawthorn	A
<i>Quercus robur</i>	Pedunculate oak	A
<i>Anemone nemorosa</i>	Wood anemone	F
<i>Anthriscus sylvestris</i>	Cow parsley	F
<i>Carex pendula</i>	Pendulous sedge	F
<i>Hedera helix</i>	Ivy	F
<i>Hyacinthoides non-scripta</i>	British bluebell	F
<i>Poa nemorosa</i>	Wood meadow grass	F
<i>Rubus fruticosus</i>	Bramble	F
<i>Prunus laurocerasus</i>	Cherry laurel	LA
<i>Sasa pumata</i>	Broad-leaved bamboo	LA
<i>Acer campestre</i>	Field maple	O
<i>Acer pseudoplatanus</i>	Sycamore	O
<i>Alliaria petiolata</i>	Garlic mustard	O
<i>Allium ursinum</i>	Ramsons	O
<i>Brachypodium sylvatica</i>	False wood brome	O
<i>Calystegia sp.</i>	Bindweed	O
<i>Circaea lutetiana</i>	Enchanter's nightshade	O
<i>Clematis vitalba</i>	Traveller's joy	O
<i>Corylus avellana</i>	Hazel	O
<i>Fraxinus excelsior</i>	Ash	O
<i>Geranium robertianum</i>	Herb Robert	O

<i>Geum urbanum</i>	Woodavens	O
<i>Glechoma hederacea</i>	Ground ivy	O
<i>Ilex aquifolium</i>	Holly	O
<i>Iris pseudacorus</i>	Yellow flag iris	O
<i>Lamiasstrum galeobdolon</i>	Yellow archangel	O
<i>Lamoum alba</i>	White dead-nettle	O
<i>Lonicera periclymenum</i>	Honeysuckle	O
<i>Mercurialis perennis</i>	Dog's mercury	O
<i>Pentaglottis sempervirens</i>	Green alkanet	O
<i>Prunus insititia</i>	Damsons	O
<i>Prunus spinosa</i>	Blackthorn	O
<i>Ranunculus ficaria</i>	Lesser celandine	O
<i>Ranunculus repens</i>	Creeping buttercup	O
<i>Rosa canina</i>	Dogrose	O
<i>Rubus idaeus</i>	Raspberry	O
<i>Rumex sanguinea</i>	Wood dock	O
<i>Salix caprea</i>	Goat willow	O
<i>Sambucus nigra</i>	Elder	O
<i>Acer palmatum</i>	Norway Maple	R
<i>Arum maculatum</i>	Lord's and ladies	R
<i>Carex sylvatica</i>	Wood sedge	R
<i>Epilobium hirsutum</i>	Great willowherb	R
<i>Lamiasstrum galeobdolon</i> subsp. <i>argentatum</i>	Variegated yellow archangel	R
<i>Oenanthe</i> sp.	Water dropwort	R
<i>Pinus sylvestica</i>	Scot's pine	R
<i>Populus x canescens</i>	Grey poplar	R
<i>Prunus avium</i>	Wild cherry	R
<i>Pulicaria dysenterica</i>	Common fleabane	R
<i>Ranunculus auricomus</i>	Goldilocks buttercup	R
<i>Silene dioica</i>	Red campion	R
<i>Stellaria holostea</i>	Greater stitchwort	R
<i>Taxus bacata</i>	Yew	R
<i>Ulmus</i> sp.	Elm	R
<i>Veronica hederifolia</i>	Ivy-leaved speedwell	R
<i>Viburnum lantana</i>	Wayfaring tree	R
<i>Viola</i> sp.	Dog violet	R

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