

# **Ecological Deliverability Report**

Keymer Road, Burgess Hill

Thakeham Homes Ltd & Persimmon Homes Thames Valley

July 2020

Report reference	Report Status	Date	Prepared by	Authorised
P616/P1057/EDR/v2	Final	14.07.2020	Linda Hamilton	Matt Jones
			BSC, PhD, CEnv,	BSc, MSc,
			MCIEEM	CEnv, MCIEEM



EAD Ecology Armada House Odhams Wharf Topsham Exeter EX3 OPB

Tel: 01392 260420 Email: info@eadecology.co.uk www.eadecology.co.uk

The information which we have prepared is true and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

This report has been prepared for the exclusive use of the client and unless otherwise agreed in writing by EAD Ecology, no other party may use, make use of or rely on the contents of the report. No liability is accepted by EAD Ecology for any use of this report, other than for the purposes for which it was originally prepared and provided.

EAD Ecology has exercised due care in preparing this report. It has not, unless specifically stated, independently verified information provided by others. No other warranty, express or implied, is made in relation to the content of this report and EAD Ecology assumes no liability for any loss resulting from errors, omissions or misrepresentation made by others.

Any recommendation, opinion or finding stated in this report is based on circumstances and facts as they existed at the time that EAD Ecology performed the work.

Nothing in this report constitutes legal opinion. If legal opinion is required the advice of a qualified legal professional should be secured.

© Copyright EAD Ecology 2020

# **Contents**

# **Executive Summary**

1	Introduction, background and approach	1
1.1	Introduction	1
1.2	Legislation and planning policy	1
1.3	Approach	1
2	Ecological baseline	3
2.1	Designated sites of conservation value	3
2.2	Habitats within the site boundary	4
2.3	Surrounding habitats	6
2.4	Protected and notable species	6
2.5	Evaluation of ecological features	. 11
3	Conclusions	. 14
3.1	Summary	. 14
3.2	Designated sites	. 14
3.3	Habitats and species	. 14
3.4	Future ecological inputs	. 15
4	References	. 16
Tabl		
Tabl	e 2.1: Statutory designated sites within the study area	3
Tabl	e 2.2 Notable bird records from the 2km study area	8
	e 2.3: Evaluation of ecological features: Designated sites and habitats	
Tabl	e 2.4: Evaluation of ecological features: Species	. 13
Tabl	e A4: Summary of Phase 2 Ecological surveys completed / in progress	. 52

# **Figures**

Figure 1: Site location plan

Figure 2: Site survey areas plan

Figure 3: Phase 1 habitat plan, target notes and photographs

Figure 4: Pond survey plan

# **Appendices**

Appendix 1: Wildlife and species legislation

Appendix 2: Relevant National Planning Policy

Appendix 3: Relevant Regional and Local Planning Policy

Appendix 4: Phase 2 survey summary

Appendix 5: Baseline evaluation criteria

Appendix 6: Designated sites of nature conservation value

# **Executive summary**

## Introduction and approach

EAD Ecology was commissioned by Thakeham Homes Ltd and Persimmon Homes Thames Valley to undertake an Ecological Deliverability Study for land at Keymer Road, Burgess Hill. The study is documented in this report and assesses the ecological suitability of the site for development.

An understanding of the preliminary ecological baseline of the site was derived through desk study and site survey. Records of protected/notable species and designated sites of nature conservation value were requested for a study area of 2km radius around the site boundary (extended to 4km for previous records of bats) from Sussex Biodiversity Record Centre; this search was extended to 10km for sites with international designations and 5km for sites with national designations using www.magic.gov.uk. Extended Phase 1 Habitat surveys of the site were undertaken in October 2019 and May 2020 (updating earlier surveys); the surveys followed guidelines published by JNCC (2010) and Institute of Environmental Assessment (IEA; 1995) and identified the main habitat types on the site and the presence/potential presence of protected and notable species. The Extended Phase 1 survey identified the potential for protected and notable species within the survey area. Further (Phase 2) surveys were subsequently commenced to determine if such species were present; these surveys are currently in progress.

#### **Baseline**

#### **Designated Sites**

Five statutory designated sites are present within 5km of the site, comprising three Sites of Special Scientific Interest (SSSIs) and two Local Nature Reserves (LNRs). None of these sites are within or adjacent to the site boundary. The nearest statutory designated site is Ditchling Common SSSI, which is approximately 975m to the east of the site and designated for its acid grassland habitats and associated butterflies, moths and breeding birds. The site lies outside of the South Downs National Park, the boundary of which occurs approximately 130m south-east of the site at its nearest point. No European-designated sites occur within 10km of the site. The closest is Castle Hill Special Area of Conservation (SAC), which lies approximately 11.5km to the south. Ashdown Forest SAC and Special Protection Area (SPA) lies approximately 14.8km to the northeast.

Four non-statutory designated sites of nature conservation value occur within 2km of the site. The closest of these is Keymer Tile Works Local Wildlife Site (LWS), which lies approximately 750m to the north of the site and is designated for its importance for five species of amphibian, including great crested newt.

#### **Habitats**

The northern section of site comprised three fields of sheep-grazed, semi-improved neutral grassland, bounded by hedgerows and fences. Areas of dense and scattered scrub, wet and dry ditches, tall ruderal, bare ground and a copse of semi-natural broadleaved woodland also occurred throughout the site. A building (stable block) occurred in the northwest of the site.

The central section comprised a mosaic of semi-improved neutral grassland, dense scrub, marshy grassland and semi-natural broadleaved woodland. A dry ditch was also present.

The southern part of the site comprised semi-improved neutral grassland, which had been colonised with dense and scattered scrub, particularly in the southern portion. A pond and wet ditch were present in the west of the site, along with an area of semi-natural broadleaved woodland.

#### **Species**

Bluebell (afforded protection against sale only) was recorded in the central part of the site. No other notable plant species were recorded within the site. The southern part of the site provided suitable habitat for a range of invertebrate species, possibly including notable species; the presence of significant populations of notable invertebrate species was considered unlikely.

Grassland, scrub and woodland habitats within the site provided suitable terrestrial habitat for amphibians; a pond was present in the southern part of the site and wet ditches occurred in the southern and northern part of the site, providing suitable aquatic habitat. Great crested newt was recorded in ditches on the site; several off-site ponds within 250m also support this species which is therefore assumed to be present within terrestrial habitat on site. All amphibians are legally protected (to varying degrees), and both common toad and great crested newt are Priority Species. Slow worm and grass snake (both Priority Species and legally protected) were recorded around the field margins within the north of the site, and were more widespread in the south of the site. Populations of both species were considered to be 'exceptional' (in accordance with Froglife survey guidelines) within suitable habitat in the south of the site.

Woodland, hedgerows, scrub, trees and grassland provided suitable nesting and foraging habitat for a range of bird species; notable species recorded during the breeding bird survey included bullfinch, dunnock, mistle thrush, nightingale, song thrush and starling. All breeding birds, their nests, eggs and young are legally protected.

No badger setts were recorded within the site to date. However, the site provided suitable foraging habitat for badger and evidence of badger (latrine) was recorded in the central site. Badgers and their setts are legally protected. No evidence of hazel dormouse (a legally protected, Priority Species) has been recorded to date.

Woodland, hedgerows, scrub and grassland within the site provided suitable foraging and commuting habitat for bats and a minimum of seven species have been recorded during the bat activity surveys to date; common pipistrelle was the most abundant species present with only low numbers of other species (soprano pipistrelle, serotine, noctule, Nathusius' pipistrelle, long-eared species and *Myotis* species) recorded. Trees with potential to support bat roosts were recorded within the site; further survey would be undertaken to confirm presence/absence of any roosts if the development proposals would result in direct effects on any of the identified trees. A low-status long-eared bat roost was recorded in the stable block in the northwest of the site. All bats are legally protected and several species are Priority Species. The site did not contain suitable habitat for otter or water vole. Hedgehog (a Priority Species) was recorded within the site; the site was also considered to potentially support the Priority Species brown hare.

#### Preliminary site assessment

No impacts on statutory or non-statutory designated sites are considered likely as a result of the development of the site. The development would seek to retain and protect existing habitats of moderate to high ecological value such as hedgerows, semi-natural broadleaved woodland, mature trees and standing water, and to deliver Biodiversity Net Gain through habitat creation and enhancement in Public Open Space.

The key species constraints are considered likely to be bats, birds, reptiles and amphibians. A comprehensive mitigation strategy for these species, including provision of suitable habitat/movement corridors within the site, would ensure that the conservation status of populations of these species was maintained.

#### **Conclusions**

There are no over-riding ecological constraints to the development of the site. It is considered that development could deliver biodiversity net gain overall and could be undertaken in compliance with designated-site and protected-species legislation. This would accord with paragraphs 170, 174 and 175 of the NPPF (2019) and Policies DP37 and DP38 of the Mid Sussex District Plan.

The ecological baseline would be used to inform the development layout and assessment of ecological effects. An Ecological Impact Assessment Report would be submitted with a planning application. This would detail the results of all ecological surveys, and provide a detailed assessment of construction and post-construction effects of the development proposals, together with avoidance, mitigation, compensation and enhancement measures. Further consultation would be undertaken with Mid Sussex District Council and Natural England as part of the assessment process.

# 1 Introduction, background and approach

#### 1.1 Introduction

- 1.1.1 EAD Ecology was commissioned by Thakeham Homes Ltd and Persimmon Homes Thames Valley to undertake an Ecological Deliverability Study for land at Keymer Road, Burgess Hill, West Sussex (approximate OS Grid Ref: TQ321178); refer to Figure 1. The site comprises Mid Sussex District Council draft site allocation SA13. The study is documented in this report and assesses the ecological suitability of the site for development, based upon the following:
  - Ecological baseline of the site; and
  - Relevant wildlife legislation and policies within the National Planning Policy Framework (NPPF, 2019) and the Mid Sussex District Plan 2014-2031.

# 1.2 Legislation and planning policy

## Wildlife legislation

- 1.2.1 The following wildlife legislation is relevant to the proposed development:
  - Conservation of Habitats and Species Regulations 2017 (as amended).
  - Wildlife and Countryside Act 1981 (as amended).
  - Countryside and Rights of Way Act 2000.
  - Natural Environment and Rural Communities Act 2006.
  - Protection of Badgers Act 1992.
- 1.2.2 A summary of wildlife legislation is provided in Appendix 1.

# National planning policy

1.2.3 The National Planning Policy Framework (NPPF; 2019) includes the Government's policy on the protection of biodiversity through the planning system. A summary of the relevant paragraphs of the NPPF is provided in Appendix 2.

# Local planning policy

- 1.2.4 Mid Sussex District Council adopted the Mid Sussex District Plan 2014-2031 as a Development Plan Document on 28th March 2018; refer to Appendix 3. The following policies from the District Plan are of relevance to the application:
  - DP37: Trees, Woodland and Hedgerows
  - DP38: Biodiversity

#### 1.3 Approach

# **Ecological baseline**

1.3.1 An understanding of the preliminary ecological baseline of the site was derived through desk study and site survey.

Desk Study

1.3.2 Biodiversity information was requested for a study area of 2km radius around the site boundary (extended to 4km for previous records of bats) from Sussex Biodiversity Record Centre. Information was obtained in August 2019 and included the location and details of the following:

- Designated sites of nature conservation value (statutory and non-statutory; extended to 10km for sites with international designations and 5km for sites with national designations using www.magic.gov.uk);
- Previous records of protected and/or notable species, including Species of Principal Importance for the Conservation of Biodiversity in England ('Priority Species').
- 1.3.3 Previous survey reports for the site and adjacent land were also reviewed. These included:
  - Arbecco (2016). Preliminary Ecological appraisal and Great Crested Newt Survey Report.
     The Blenheims, Burgess Hill. Report to Omega Land and New Homes.
  - WYG (2019). Ecological Constraints Report. Land south of Folders Lane and east of Keymer Road Burgess Hill. Report to Persimmon Homes Thames Valley. November 2019

Site Survey

- 1.3.4 For the purpose of this report, the site is divided into three sections (refer to Figure 2), namely: 'Northern site', 'Central site', and 'Southern site'.
- 1.3.5 The timing/commencement of ecological surveys has varied by section. Extended Phase 1 Habitat surveys were undertaken as follows:
  - Northern site: 7 October 2019 (updating previous survey in 2015).
  - Central site: 18 May 2020.
  - Southern site: 22 July 2020 (updating previous survey by WYG in October 2019).
- 1.3.6 The survey followed guidelines published by JNCC (2010) and Institute of Environmental Assessment (IEA; 1995) and identified the main habitat types on the site and the presence/potential presence of protected and notable species. The results of the survey were detailed on a Phase 1 Habitat plan (refer to Figure 3), with target notes used to identify specific features of ecological interest.
- 1.3.7 The Extended Phase 1 survey identified the potential for protected and notable species within the site. Further (Phase 2) surveys were therefore progressed to determine if such species were present. A summary of these surveys is provided in Appendix 4. All surveys were/are being undertaken following standard published methods.
- 1.3.8 Phase 2 ecological surveys were completed within the northern site in 2015. These have now largely been updated/succeeded through survey work completed since August 2019 and therefore survey results reported here generally reflect the current baseline. However, 2015 survey results are referenced where considered relevant.

Survey limitations

1.3.9 There were no significant limitations to the Extended Phase 1 or Phase 2 surveys.

## **Evaluation of ecological features**

1.3.10 The importance of the ecological features identified was evaluated using criteria for habitats and species following CIEEM (2018). Importance was classified using an eight-level geographic scale from 'Sub-Parish' (low) to 'International' (high; refer to Appendix 5).

# 2 Ecological baseline

# 2.1 Designated sites of conservation value

European designated sites

2.1.1 There are no European designated sites of nature conservation value within the 10km study area. The closest is Castle Hill Special Area of Conservation (SAC), which occurs approximately 11.5km to the south. Ashdown Forest SAC and Special Protection Area (SPA) lies approximately 14.8km to the northeast.

Nationally designated sites

2.1.2 Five statutory-designated sites are present within 5km of the site, comprising three Sites of Special Scientific Interest (SSSIs) and two Local Nature Reserves (LNRs); refer to Table 2.1 and Appendix 6. None of these sites are within or adjacent to the site boundary. The nearest statutory designated site is Ditchling Common SSSI, which is approximately 975m to the east of the site and designated for its acid grassland habitats and associated butterflies, moths and breeding birds; refer to Table 2.1. The site lies outside of the South Downs National Park, the boundary of which occurs approximately 130m south-east of the site at its nearest point.

Non-statutory designated sites

2.1.3 Five non-statutory designated sites of nature conservation value occur within 2km of the site; refer to Appendix 6. The closest of these is Keymer Tile Works Local Wildlife Site (LWS), which lies approximately 750m to the north of the site and is designated for its importance for five species of amphibian, including great crested newt.

Table 2.1: Statutory designated sites within the study area

Site name	Nature conservation designation	Reason for designation	Approximate distance and direction from site
Clayton to Offham Escarpment	SSSI	<ul> <li>Nationally uncommon chalk grassland habitat.</li> <li>Supports a rich community of breeding birds including nightingale, all three British woodpeckers and tawny owl.</li> <li>Orchids well represented throughout the site including fly orchid, greater butterfly orchid and bee orchid.</li> </ul>	4.1km S
Ditchling Common	SSSI	<ul> <li>Presence of acid grassland habitats</li> <li>Rich butterfly and moth fauna including pearl bordered fritillary and green hairstreak.</li> <li>Valuable for breeding birds such as willow warbler and yellow hammer.</li> </ul>	930m east
Wolstonbury Hill	SSSI	Many flowering plants including uncommon species such as round headed rampion.	4.7km SW

Table 2.1: Statutory designated sites within the study area

Site name	Nature conservation designation	Reason for designation	Approximate distance and direction from site
		Range of orchid species found here including bee orchid and pyramidal orchid.	
Bedelands Farm	LNR	Habitats present here include wildflower meadows, ancient woodland and hedgerows.  Plants recorded include bluebells, adders tongue fern, ancient hornbeam and yellow rattle.	2.8km north
Ashenground and Bolnore Woods	LNR	Ancient woodland which supports bats, owls and woodpeckers.	4.8km north

# 2.2 Habitats within the site boundary

- 2.2.1 The northern section of the site comprised three fields of sheep-grazed, semi-improved neutral grassland bounded by hedgerows and fences. A ditch was present along the southern site boundary along with mature trees and scattered scrub. Areas of bare ground, a building (stable block), dense and scattered scrub, tall ruderal and a small copse of semi-natural broadleaved woodland were also present.
- 2.2.2 The central section of the site comprised semi-improved neutral grassland, marshy grassland, dense scrub and semi-natural broadleaved woodland. A dry ditch was also present.
- 2.2.3 The southern section of the site comprised semi-improved neutral grassland, much of which had been colonised with dense and scattered scrub. A pond and wet ditch were present in the west of the site, along with an area of semi-natural broadleaved woodland. Field boundaries comprised mature treelines with an understorey of dense scrub.
- 2.2.4 A Phase 1 Habitat plan covering all three sections, along with associated target notes (TNs; including photographs), is provided in Figure 3.

Amenity grassland

2.2.5 A small area of amenity grassland was located adjacent to Keymer Road.

Bare around

2.2.6 Two small areas of bare ground were recorded within the site, associated with pathways.

**Buildings** 

2.2.7 One brick stable block building (TN 4) with a pitched tiled roof located occurred in the northwestern part of the site. It had missing roof tiles, gaps under ridge tiles and eaves, and a gap above the stable door. The building had potential for roosting bats and nesting birds.

- Dense and scattered scrub
- 2.2.8 Dense and scattered scrub were recorded throughout the site. In the northern section, areas of dense scrub were associated with the stable building (TN 4), woodland (TN 2) and pathways. Dense scrub was dominated by blackthorn and bramble with occasional rose sp., pedunculate oak, willow sp. and plum sp.
- 2.2.9 Dense scrub was recorded throughout the central part of the site (TN12) where it had colonised much of the grassland. Dense scrub was present along the field boundaries in the southern part of the site (e.g. TN 16), and a mosaic of dense/scattered scrub (TN 17, 22) and grassland dominated the fields.

Dry ditch

2.2.10 Dry ditch was present in the centre of the site (TN 13).

Hardstanding

2.2.11 Hardstanding connected the site to Keymer Road, in two locations.

Hedgerow (Species-poor)

2.2.12 Two species-poor hedgerows were recorded bordering the hardstanding track leading to Keymer Road in the northwest of the site; these were dominated by laurel and beech. A species-poor hedgerow comprising garden privet was recorded in the south of the site. Hedgerow is a Priority Habitat.

Hedgerow (Species-rich)

2.2.13 In the northern section, species-rich hedgerows were recorded along the western and eastern site boundaries and dividing the three fields (TN 6, 8). The hedgerows were defunct in places and featured mature pedunculate oak trees along with new whip planting. Hedgerow comprised hawthorn, blackthorn, rose, hazel and spindle and were becoming overgrown with bramble scrub in places. In the southern section, the hedgerows (e.g. TN 16) were primarily outgrown into mature treelines with an understorey of dense scrub; species included oak, hornbeam, hawthorn and blackthorn.

Marginal vegetation

2.2.14 This habitat occurred in the central section of the site (TN 14) and indicated an area which is frequently wet/inundated; species included hemlock water dropwort, soft rush, yellow flag iris and cuckoo flower.

Marshy grassland

2.2.15 Marshy grassland occurred in the central section of the site (TN 11). Species included soft rush, bugle and creeping buttercup.

Semi-natural broadleaved woodland

2.2.16 There was a small area of semi-natural broadleaved woodland located on the northern site boundary (TN 2), which was surrounded by dense scrub. This habitat also occurred in the central section (TN 10), where mature oak and ash trees were present primarily along the boundary hedgebanks and an understorey of oak saplings, field maple, blackthorn and bramble was present. Semi-natural broadleaved woodland also surrounded the pond in the southwest of the site (TN 19) where species included pedunculate oak and willow species. None of the semi-natural broadleaved woodland was classified as 'Ancient Woodland'.

- Semi-improved neutral grassland
- 2.2.17 Three sheep-grazed semi-improved neutral grassland fields dominated the northern section of the site. Dominant species included the grasses common bent, Yorkshire-fog and sweet vernal grass. Herbs included frequent to locally abundant common knapweed, common birds-foot-trefoil, ribwort plantain and red clover. Where grassland was more shaded e.g. along boundaries, other species included false brome, clustered dock, ground ivy and soft rush.
- 2.2.18 Semi-improved neutral grassland also occurred in the central and southern parts of the site, where dense and scattered scrub was encroaching. Species included Yorkshire fog, Timothy grass, sweet vernal grass, red fescue, lesser stitchwort, creeping cinquefoil, fleabane, tufted vetch and agrimony.
  - Scattered broadleaved trees
- 2.2.19 Scattered broadleaved trees were present within the site. These included mature pedunculate oak (e.g. TN 23) and ash trees.
  - Standing open water
- 2.2.20 A pond (TN 20) was located in the southwest of the site measuring approximately 15x7m. The pond had no marginal vegetation and was very turbid at the time of survey. It was heavily shaded by over-hanging oak and willow trees. Whilst providing potentially suitable habitat for amphibians in early spring, the pond had completely dried out by May.
  - Tall ruderal
- 2.2.21 Tall ruderal was present along field boundaries in a number of places (e.g. TN 18). Species included nettle, broad- leaved dock, cleavers, wild mullein, hemlock, tansy and comfrey.

## 2.3 Surrounding habitats

2.3.1 The site was surrounded to the north, west and south by residential development; Keymer Road was located to the west of the site, Folders Lane to the north and Wellhouse Lane to the south. Winston's Fishery lakes, grassland and woodland and scrub were located to the east of the site.

## 2.4 Protected and notable species

#### **Plants**

Desk Study

- 2.4.1 No records of notable plant species occurred within the site boundary. Numerous notable plant species have been recorded within the 2km study area (many associated with Ditchling Common):
  - Tawny sedge, broad-leaved spurge, rush, pale toadflax, ivy broomrape (Sussex Rare);
  - Green-winged orchid (Nationally Threatened);
  - Fringed water-lily (Nationally Scarce);
  - Lesser quaking-grass, rye brome, box, stinking hellebore (Nationally Scarce and Sussex Rare);
  - Bluebell (listed on Schedule 8 of the Wildlife and Countryside Act (WCA) 1981 (as amended));
  - Spatulate Fleawort (Priority Species, listed on Schedule 8 of the Wildlife and Countryside Act (WCA) 1981 (as amended));
  - Spreading hedge-parsley (Priority Species, listed on Schedule 8 of the Wildlife and Countryside Act (WCA) 1981 (as amended), Nationally Scarce, Sussex Rare);

Site Survey

2.4.2 Bluebell (protected against sale only) was recorded in the semi-natural broadleaved woodland in the central part of the site. No further notable plants were recorded on the site and the presence of such species was considered unlikely, given current heavy grazing levels.

#### Invasive plant species

Desk Study

2.4.3 There were numerous records of invasive plant species within the 2km study area.

Site Survey

2.4.4 No invasive plant species have been recorded to date within the site.

#### **Invertebrates**

Desk Study

- 2.4.5 The following invertebrate species have been recorded within the study area (many of which relate to Ditchling Common):
  - 63 Sussex Rare species;
  - 18 Nationally Notable species;
  - 44 Priority Species;
  - 12 Nationally Scarce species;
  - Two Nationally Rare species (Slender Amber Snail and Lebia cruxminor); and
  - Six species protected under Schedule 5 of the Wildlife and Countryside Act (stag beetle, purple emperor, grizzled skipper, black hairstreak, white hairstreak, brown hairstreak).

Site survey

2.4.6 The habitats within the site are considered to be suitable to support a wide variety of invertebrate species, possibly including notable species. However, the presence of significant populations of notable species is considered to be unlikely.

## **Amphibians**

Desk Study

2.4.7 Great crested newt (a legally protected and Priority Species) and common toad (a Priority Species with partial legal protection) have both been recorded within the study area. Palmate newt, smooth newt and common frog (partially protected under the Wildlife and Countryside Act) were also recorded. All amphibians are legally protected to varying degrees; refer to Appendix 1.

Site survey

- 2.4.8 Wet ditches within the site (TN 9, 18) tested positive for great crested newt DNA (eDNA); these appear to be only seasonally wet and are considered likely to be used by foraging great crested newts, rather than as breeding habitat. The pond on site had dried out by the time of the survey and was therefore unsuitable.
- 2.4.9 Great crested newts have been recorded in off-site ponds, within the typical dispersal range of this species. A small breeding population of great crested newt was recorded in 'Pond 2' (approximately 60m to the west of the site) and in 'Pond 9' (approximately 100m east of the site); refer to Figure 4. In addition, a previous survey report (Arbecco, 2016) identified a medium population in ponds 4 and 6, adjacent to the western site boundary.

2.4.10 Terrestrial habitat within the site, such as long grass, scrub, woodland and hedgerow, is therefore likely to support great crested newt, in addition to other amphibian species. Common toad was recorded within the site during the course of the reptile survey.

## Reptiles

Desk Study

2.4.11 Grass snake, common lizard and slow worm (all Priority Species and legally protected) have been recorded within the study area.

Site survey

2.4.12 A 'low' population of grass snake and a 'good' population slow worm were recorded within suitable habitat around the field boundaries in the north of the site. 'Exceptional' populations of both species were recorded in the southern part of the site where the mosaic of grassland and dense/scattered scrub provides optimal habitat. Survey is on-going in the central section.

#### Birds

Desk Study

2.4.13 A total 52 notable bird species have been recorded in the study area; these are listed in Table 2.2. All breeding birds, their nests, eggs and young are legally protected; species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) receive additional protection; refer to Appendix 1.

Table 2.2 Notable bird records from the 2km study area

				Birds
Species	BOCC3 status <sup>1</sup>	Priority Species	WCA Schedule 1	Directive
Barn owl			Sch. 1	
Bittern	Amber	UK Priority species		
Bullfinch	Amber	UK Priority species		
Common gull	Amber			
Corn Bunting	Red	UK Priority species		
Cuckoo	Red	UK Priority species		
Dunnock	Amber	UK Priority species		
Grasshopper warbler	Red	UK Priority species		
Green woodpecker				
Grey wagtail	Red			
Hawfinch	Red	UK Priority species		
Herring gull	Red	UK Priority species		
Hobby			Sch. 1	
House martin	Amber			
House sparrow	Red	UK Priority species		
Kingfisher	Amber		Sch. 1	Annex 1
Kestrel	Amber			
Lapwing	Red	UK Priority species		
Lesser black-backed gull	Amber			

Species	BOCC3 status <sup>1</sup>	Priority Species	WCA Schedule 1	Birds Directive
Lesser spotted woodpecker	Red	Filolity Species	WCA Scriedule 1	Directive
Little grebe	Red			
Little ringed plover			Sch. 1	
Linnet	Red		SCII. I	
Mallard				
	Amber			
Marsh tit	Red			
Meadow pipit	Amber			Annex 1
Merlin	Red		Sch. 1	Annex 1
Mistle thrush	Red			
Mute swan	Amber			
Nightingale	Red			
Pintail	Amber			
Red Kite			Sch. 1	Annex 1
Reed bunting	Amber	UK Priority Species		
Ring ouzel	Red	UK Priority species		
Skylark	Red	UK Priority Species		
Song Thrush	Red			
Spotted flycatcher	Red	UK Priority species		
Starling	Red	UK Priority species		
Stock dove	Amber			
Swallow				
Swift	Amber			
Tawny owl	Amber			
Tree sparrow	Red	UK Priority species		
Tufted duck				
Turtle dove	Red	UK Priority species		
Willow tit	Red	UK Priority species		
Willow warbler	Amber			
White-fronted goose	Red	UK Priority species		
Whitethroat				
Woodcock	Red			
Yellowhammer	Red	UK Priority species		
Yellow wagtail	Red	UK Priority species		

<sup>&</sup>lt;sup>1</sup> Status in Birds of Conservation Concern 4 (Eaton et al., 2015)

# Site survey

2.4.14 A total of 32 species were recorded during the course of the breeding bird surveys within the site, of which 23 species were confirmed, probably or possibly breeding within the survey area. These included:

- Starling, which was confirmed to have bred, and song thrush, which possibly bred. These are Priority Species and Red-listed Birds of Conservation Concern (Eaton et al 2015).
- Nightingale and mistle thrush, which probably bred. These are Red-listed Birds of Conservation Concern (Eaton et al 2015).
- Dunnock, which possibly bred. This is an Amber-listed Bird of Conservation Concern and Priority Species.
- Bullfinch, which possibly bred. This is an Amber-listed Bird of Conservation Concern.
- 2.4.15 A barn owl was recorded foraging over the north west of the site during one of the bat surveys in 2015; nightingale was heard singing in the central part of the site during bat surveys in 2020. Numerous old bird nests were recorded within the stable block building, but no evidence of barn owl was recorded.

#### Hazel dormouse

Desk Study

2.4.16 There were four records of hazel dormouse within the 2km study area. Dormouse is legally protected and a Priority Species.

Site survey

2.4.17 Scrub, hedgerows and woodland within and around the site provided suitable habitat for hazel dormouse. However, no evidence of dormouse has been recorded to date; refer to Appendix 4.

#### Badger

Desk Study

2.4.18 There were no records of badger within the 2km study area. Badger is legally protected; refer to Appendix 1.

Site survey

2.4.19 No badger setts have been recorded within the site to date. Grassland, woodland, scrub and hedgerow habitats provided suitable foraging habitat for badger and a badger latrine was recorded in the central section of the site; refer to Appendix 4.

#### Bats

Desk Study

- 2.4.20 There were no previous records of bat roosts within the site boundary. Bat records from within the 4km study area included:
  - Brown long-eared bat, common pipistrelle, soprano pipistrelle, noctule, Nathusius'
    pipistrelle, whiskered bat, Daubenton's, Natterer's, serotine, whiskered/Brandt's bat,
    unidentified pipistrelle species, Myotis species, long-eared species and unidentified bat
    species (all are legally protected); and,
  - Brown long-eared, noctule, whiskered and soprano pipistrelle (all legally protected and Priority Species).

Site survey

2.4.21 Woodland, hedgerows, scrub and grassland within the site provide suitable foraging and commuting habitat for bats. Mature trees have potential to support bat roosts. Any trees that would be affected by development proposals would be subject to further surveys to establish if a roost was present, with appropriate mitigation and licensing implemented if required.

- 2.4.22 A low-status long-eared bat day roost was recorded roosting within the stable block (TN 4) during a dawn re-entry survey in 2015 and an update survey in 2019 re-confirmed the presence of the roost.
- 2.4.23 The highest levels of bat activity recorded during the bat activity surveys to date, have been associated with hedgerows and mature trees, which provide foraging habitat and navigational features for bats. A minimum of seven species have been recorded. The majority of bats recorded were common pipistrelle, followed by soprano pipistrelle. Other bats identified in low numbers were *Myotis* sp. and noctule, serotine, long-eared bat sp. and Nathusius' pipistrelle.

#### Otter

Desk Study

2.4.24 There were no records of otter within the 2km study area. Otter is legally protected and a Priority Species; refer to Appendix 1.

Site survey

2.4.25 There was no suitable habitat for otter within the site; therefore, this species is considered to be absent.

#### Water vole

Desk Study

2.4.26 There were three records of water vole within the 2km study area. Water vole is a Priority Species and legally protected; refer to Appendix 1.

Site survey

2.4.27 There was no suitable habitat for water vole within the site; therefore, this species is considered to be absent.

#### Other mammals

Desk Study

2.4.28 Multiple records of hedgehog were provided within the 2km study area. Hedgehog is a Priority Species.

Site survey

2.4.29 The site provided suitable habitat for hedgehog and brown hare.. Hedgehog was recorded in the central part of the site.

# 2.5 Evaluation of ecological features

2.5.1 An evaluation of the designated sites and habitats within and adjacent to the site is provided in Table 2.3 below; an evaluation of protected and notable species is provided in Table 2.4.

Table 2.3: Evaluation of ecological features: Designated sites and habitats

Ecological feature Ecological importance		Reason
Designated sites of nature conservation value		
European designated sites	International	Valuation reflected by designation.

Table 2.3: Evaluation of ecological features: Designated sites and habitats

Ecological feature	Ecological	Reason
	importance	
Clayton to Offham Escarpment SSSI Ditchling Common SSSI Wolstonbury Hill SSSI	National	Valuation reflected by designation.
Bedelands Farm LNR Ashenground and Bolnore Woods LNR	District - County	Valuation reflected by designation.
Local wildlife sites	District – County value	Valuation reflected by designation.
Habitats within the site		
Amenity grassland	Sub-Parish	Common, widespread habitat.
Bare ground	Sub-Parish	Common, widespread habitat
Dense and scattered scrub	Sub-Parish	Common, widespread habitat
Dry ditch	Sub-Parish	Common, widespread habitat.
Hardstanding and building	Sub-Parish	Man-made habitats of low ecological importance.
Marginal vegetation / marshy grassland	Sub-Parish	Common and widespread habitats associated with damp ground/regular inundation.
Semi-improved neutral grassland	Sub-Parish to Parish	Grassland with good diversity of herbaceous species, but did not meet criteria for lowland meadow Priority Habitat.
Scattered broadleaved trees	Sub-Parish to Parish	Some of the trees were semi-mature and of low ecological importance however there were also mature trees present; these provided habitat for a range of species and are assessed as being of Parish importance.
Hedgerows (species-rich and species-poor)	Sub-Parish to Parish	Priority Habitat. Provides nesting, foraging and dispersal habitat, as well as movement/navigational habitat for a range of invertebrate, bird and mammal species.
Semi-natural broadleaved woodland	Parish	Provides nesting and foraging habitat for birds and other species. Mixed lowland woodland is a Priority Habitat, but only small copses were present within the site.
Standing open water	Sub-Parish to Parish	Pond is a Priority habitat. Ecological value reduced through over-shading and access by horses. Pond dried out by May.

Table 2.3: Evaluation of ecological features: Designated sites and habitats

Ecological feature	Ecological importance	Reason
Tall ruderal	Sub-Parish	Common, widespread habitat.
Wet ditch	Sub-Parish	Common, widespread habitat.

**Table 2.4: Evaluation of ecological features: Species** 

Ecological	Ecological importance	Reason
feature		
Plants	Sub-Parish	Bluebell was recorded in the central
		section of the site. No other notable
		plant species were recorded within
		the site to date.
Invertebrates	Sub-Parish – Parish	Habitats within the site likely to
		support wide range of invertebrates
		potentially including notable species.
Amphibians	Parish	Site is within typical dispersal range of
		great crested newt (Priority Species)
		from off-site ponds. Common toad
		(also Priority Species) present.
		Suitable terrestrial habitat present.
Reptiles	Parish – District	Exceptional populations (Froglife
		1999 criteria) of slow worm and grass
		snake (both Priority Species) present
		in south of site.
Birds	Parish	The site and surrounding area
		supported a range of common /
		widespread breeding species
		including Species of Conservation
		Concern / Priority Species.
Hazel dormouse	Negligible	No evidence of this species recorded
		to date.
Badger	Sub-Parish	Site likely to support foraging badger.
		No setts recorded to date.
Bats	Parish	Trees with bat roost potential were
		recorded. Long-eared bat roost was
		identified within the stable block
		building. The survey area was used by
		at least seven bat species for
		commuting and foraging, including
		the Priority Species soprano
		pipistrelle and noctule.
Otter	Negligible	No suitable habitat present.
Water vole	Negligible	No suitable habitat present.
Other mammals	Sub-Parish	Presence of hedgehog confirmed and
		brown hare was assumed.

# 3 Conclusions

# 3.1 Summary

3.1.1 It is considered that there are no over-riding ecological constraints to the development of the site. Development could deliver biodiversity gain overall and could be undertaken without significant effects on designated sites and in compliance with protected-species legislation. This would accord with paragraphs 170, 174 and 175 of the NPPF, and Policies DP37 and DP38 of the Mid Sussex District Plan. Further consideration of these matters is set out in Sections 3.2-3.3 below.

# 3.2 Designated sites

3.2.1 It is considered that potential negative effects on designated sites would be unlikely. The site lies outside the 7km zone of influence for Ashdown Forest SAC and does not lie within a SSSI Impact Risk Zone relating to residential development for Ditchling Common SSSI.

# 3.3 Habitats and species

#### **Habitats**

- 3.3.1 Habitats of moderate to high importance within the site are hedgerows, semi-natural broadleaved woodland, mature broadleaved trees and the pond. Semi-improved neutral grassland, amenity grassland, scrub and tall ruderal habitats are of low to moderate ecological importance.
- 3.3.2 The habitats of moderate to high importance would be retained and protected wherever possible within the site. Where habitat loss was unavoidable, for example through the creation of site infrastructure, mitigation habitat could be created elsewhere within the development e.g. hedgerow loss necessary for access could be mitigated through new hedgerow planting.
- 3.3.3 In addition to habitat protection and avoidance, habitat creation and enhancement could be delivered, providing a net gain in Priority Habitats such as species-rich hedgerow, broadleaved woodland, wetlands (including ponds) and wildflower meadow. Habitat creation could also be delivered through an integrated approach with landscape, amenity and drainage proposals e.g. SuDS; this has potential to increase the diversity of habitat types within the site. Habitat protection measures during construction could be secured through a Construction Ecological Management Plan (CEcoMP). Long-term management of all retained and proposed habitats could be achieved through implementation of a post-construction Landscape and Ecological Management Plan (LEMP).

#### Species

- 3.3.4 The presence of the following protected/notable species would inform the extent and distribution of development, public open space and drainage features:
  - Amphibians.
  - Reptiles.
  - Breeding birds.
  - Bats.
  - Badgers.
- 3.3.5 The presence of legally protected or notable species would be taken into account during development design, planning and subsequent requirement for Natural England Mitigation Licences (where relevant). Avoidance and mitigation measures could be integrated within both the layout and construction programme to ensure species protection in accordance with planning

policy and protected-species legislation. In addition to habitat creation, species-specific enhancement measures could also be provided e.g. bird boxes; bat boxes; reptile hibernation sites. This could be set out in the CEcoMP for the construction period and long-term delivery ensured post-construction through implementation of the LEMP.

# 3.4 Future ecological inputs

#### Design, assessment and reporting

3.4.1 Ecological design inputs would continue to be made to the proposed development layout. An Ecological Impact Assessment (EcIA) would be produced to inform the design process and to support a future planning application for the site. This would be undertaken in accordance with EcIA guidelines published by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2018) and BS42020:2013 'Biodiversity – Code of practice for planning and development'. The EcIA would detail all desk study information and survey data, against which the effects of the development would be assessed. Avoidance and mitigation measures, additional to those already integrated into the development layout, would also be documented into the EcIA; compensation measures, if required, would be included. A Defra Metric 2.0 calculation would be included to demonstrate delivery of net biodiversity gain through the development. A summary of residual effects, including any cumulative effects with other development coming forward, would be documented.

#### **Consultation**

3.4.2 Consultation would be undertaken with Mid Sussex District Council and Natural England in relation to the ecological mitigation and enhancement strategy for the development.

# 4 References

Arbecco (2016). Preliminary Ecological appraisal and Great Crested Newt Survey Report. The Blenheims, Burgess Hill. Report to Omega Land and New Homes.

BS 42020:2013 Biodiversity - Code of practice for planning and development.

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

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

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

Froglife (1999). Reptile survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice Sheet 10. Froglife, Halesworth.

Ministry of Housing, Communities and Local Government (2019). *National Planning Policy Framework*. Ministry of Housing, Communities and Local Government, London.

Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015) *Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man.* British Birds 108, 708–746.

IEA (1995) Guidelines for baseline ecological assessment. Institute of Environmental Assessment.

JNCC (2010). Handbook for Phase-1 Habitat Survey: a technique for environmental audit. JNCC, Peterborough.

Mid Sussex District Council (2014). Mid Sussex District Plan 2014-2031. Adopted March 2018.

Stace CA (2010) New Flora of the British Isles. Cambridge University Press.

WYG (2019). Ecological Constraints Report. Land south of Folders Lane and east of Keymer Road Burgess Hill. Report to Persimmon Homes Thames Valley. November 2019

Figure 1: Site location plan

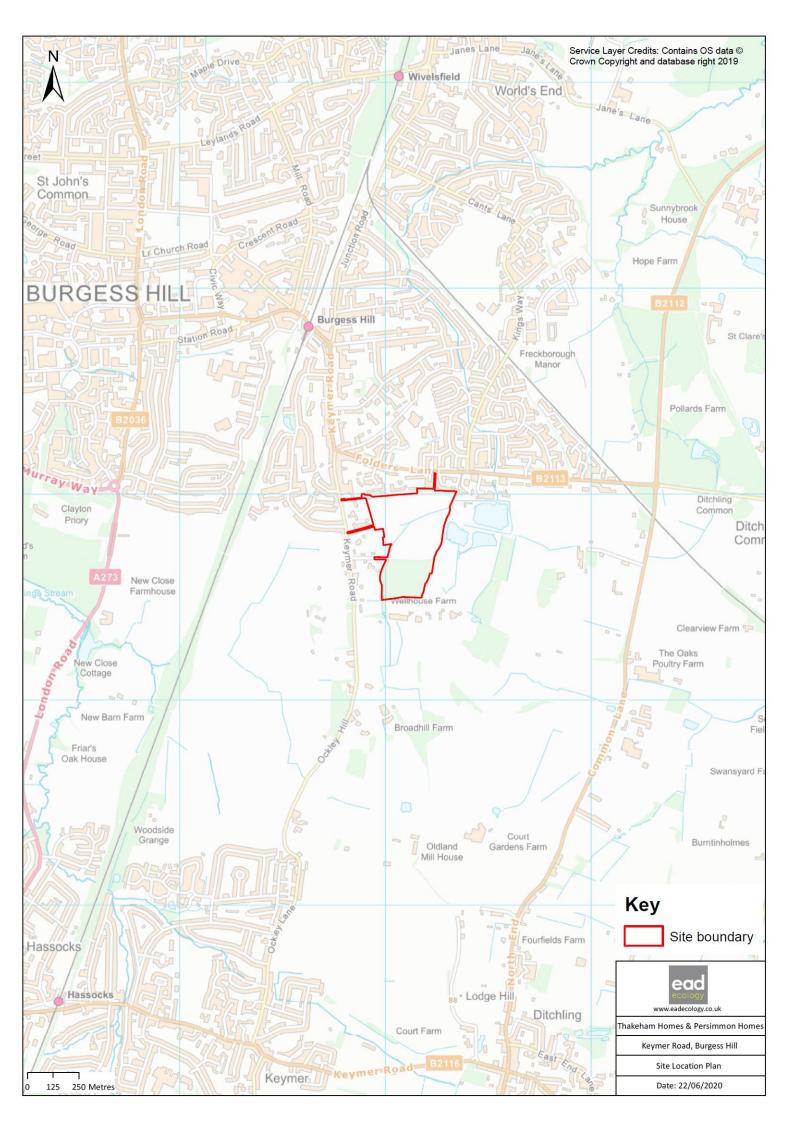
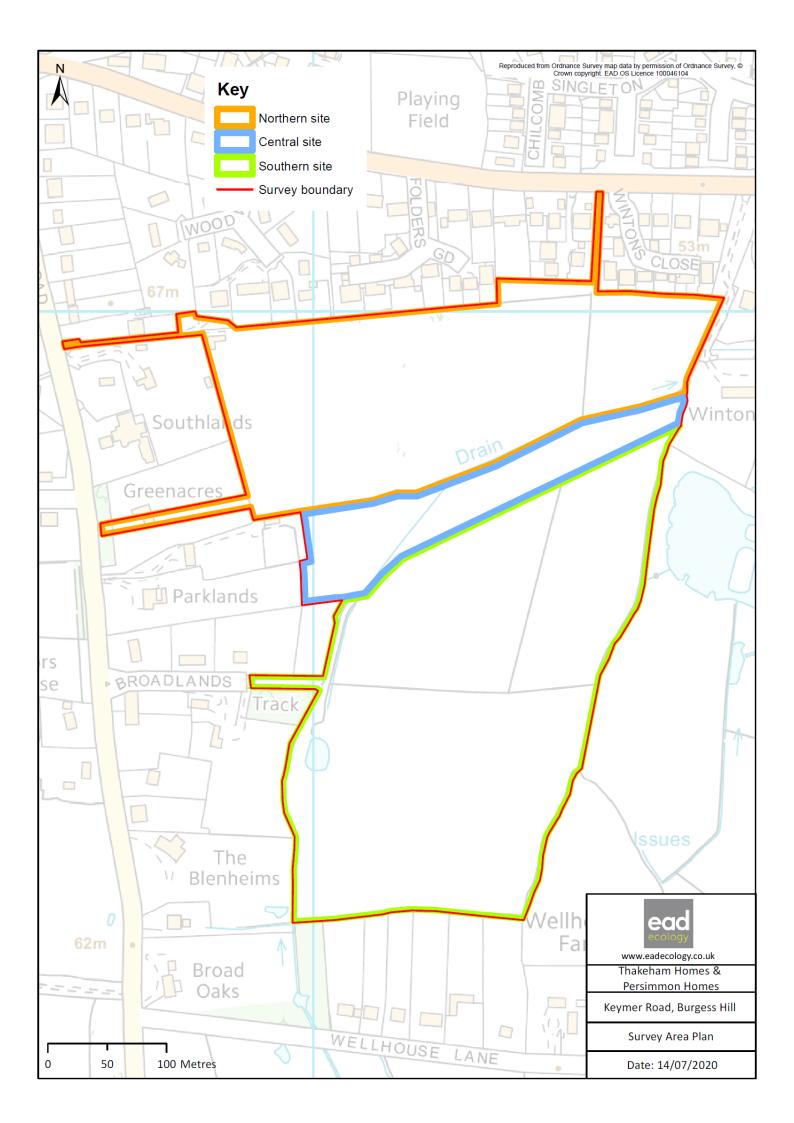
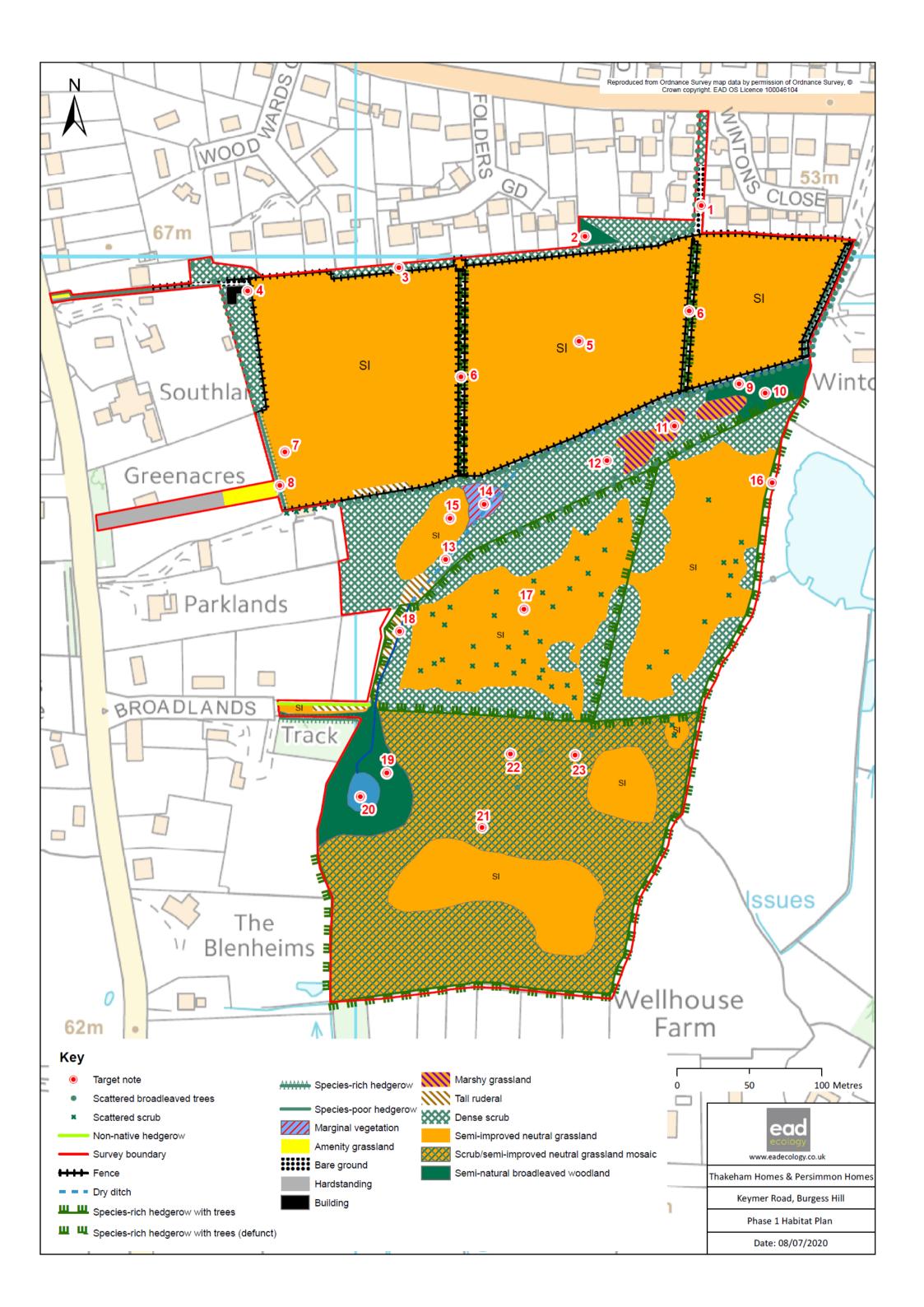


Figure 2: Site survey areas plan



# Figure 3:

# **Phase 1 Plan, Target Notes and Photographs**



Target	Description
note#	
1	Area of recently cleared scrub and bare ground.
2	Small area of semi-natural broadleaved woodland behind dense scrub with pedunculate
	oak, ash and willow sp.
3	Recently established native scrub along northern boundary. Dominated by blackthorn and bramble with some rose sp., pedunculate oak, willow sp. and plum sp.
4	Brick stable block <b>building</b> with pitched tiled roof. Some missing tiles, gaps under ridge tiles and eaves, and large opening on east aspect. Potential for roosting bats and nesting birds.



Sheep-grazed **semi-improved neutral grassland** dominated by common bent, Yorkshire-fog and sweet vernal grass. Herbs included occasional to locally frequent common knapweed, birds-foot-trefoil, ribwort plantain and red clover. Where grassland was more shaded e.g. along southern boundary, other species included false brome, clustered dock, ground ivy and soft rush.



**Defunct species-rich hedgerow** with mature pedunculate oak trees. Hedgerow comprised hawthorn, blackthorn, rose, hazel and spindle although many whips not established and becoming overgrown with bramble and willow scrub in places.





**Log pile** which provides suitable reptile habitat.



**Recently-established hedgerow** with blackthorn, osier, goat/grey willow, rose, oak, hawthorn, hazel, dogwood and elm.



Drain incised approximately 1.5m below the ground with steep earth banks and a stone/earth substrate in parts. Varying depths between 0-0.5m. Slow flow in sections. Tree lined banks. No aquatic or marginal vegetation.





Broadleaved woodland with canopy dominated by oak with even-aged sapling oak, field maple, blackthorn and bramble understorey. Sparse ground flora with bare ground in patches and other areas of nettle, dock and cleavers. Localised patches of more diverse ground flora, typically towards the north with bluebells, red campion, dog's mercury and greater stitchwort present. Mature oak and ash trees predominantly along the boundary fencelines.



Area of marshy grassland/bare grazed ground dominated by soft rush with other species such as bugle, iris spp., creeping buttercup. All grazed and surrounded by scrub habitat on the periphery.



Large areas of **dense scrub**. Scrub species typically included blackthorn, bramble, hawthorn and willow spp.



Stretch of **dry ditch** which is completely encroached by dense scrub as it crosses the central part of the site.



Large expanse of **marginal vegetation** dominated by hemlock water dropwort with soft rush, yellow flag iris, cuckoo flower and Yorkshire fog recorded.



Area of **semi-improved neutral grassland** with Timothy grass, red fescue, bugle, creeping buttercup and soft rush.



Overgrown native intact **species-rich hedgerow with trees**, typical of the majority of hedgerow boundaries around the southern site. Species included blackthorn, hornbeam, oak and hawthorn.



Area of **semi-improved neutral grassland** with scattered patches of bramble-dominated scrub encroaching from the boundaries. Species included Yorkshire fog, Timothy grass, sweet vernal grass, red fescue, lesser stitchwort, creeping cinquefoil, fleabane, tufted vetch and agrimony. Intensively grazed by horses and ground subject to high levels of compaction.



Seasonally **wet ditch** which was heavily vegetated and shaded by surrounding ruderal habitat (species included nettle, broad-leaved dock, cleavers, wild mullein, hemlock, tansy and comfrey).



Small area of semi-natural **broadleaved woodland** dominated by oak with scattered scrub understorey. Ground poached by horses resulting in very little ground flora.



A turbid and shaded **pond** in the middle of an area of broadleaved woodland. Banks comprised bare mud due to poaching by horses. The bankside oaks and willows shade and extend into the pond. A small amount of duckweed and iris was present within the pond. Pond had dried out completely by May 2020.



21 **Scrub** in the western part of the site dominated by young self-seeded oak trees.



22 Large portion of southern section of the site dominated by **dense bramble scrub**.



Example of mature **standard oak tree** within area of scrub/semi-improved neutral grassland in the south of the site, providing potential bat roost habitat.

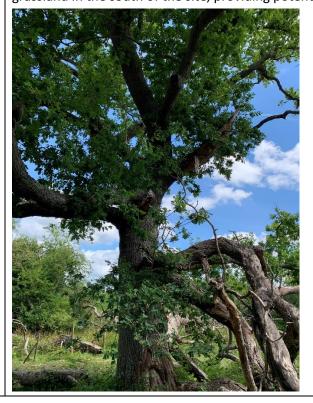
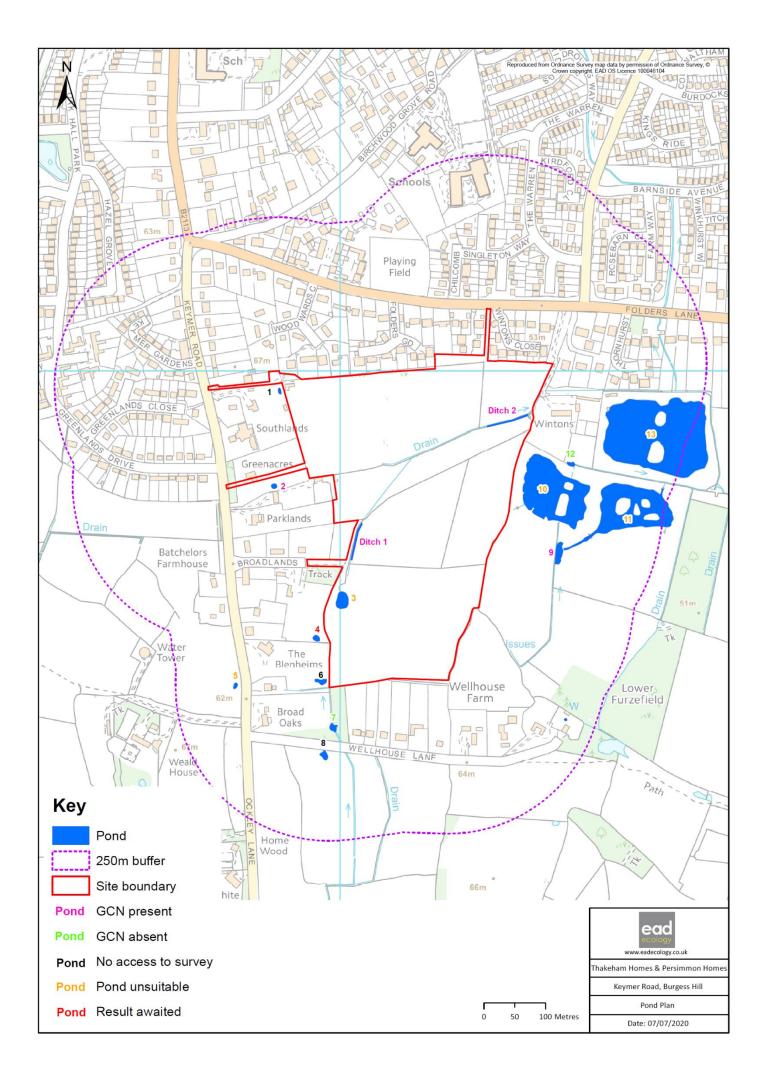


Figure 4: Pond survey plan



# **Appendix 1: Wildlife and species legislation**

## Wildlife legislation

Conservation of Habitats and Species Regulations 2017 (as amended)

These Regulations, also referred to as the 'Habitats Regulations', implement the EC Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna (92/43/EEC) and the EC Directive on the Conservation of Wild Birds (79/409/EEC). The Regulations provide for the designation and protection of 'European Sites' (Natura 2000 sites). They convey a statutory requirement for local planning authorities to undertake a 'Habitats Regulations Assessment' of the potential impacts of plans and projects, including development proposals, on European Sites. The provisions also include protection of 'European Protected Species' (EPS). Under the Regulations, local planning authorities have to consider three 'derogation tests' when deciding whether to grant permission for a development that affects an EPS, which are as follows:

- the development must be for over-riding public interest or for public health and safety;
- there are no satisfactory alternatives to the proposed development; and
- the favourable conservation status of the EPS concerned must be maintained.

#### Wildlife and Countryside Act 1981 (as amended)

This Act is the principal wildlife legislation in Great Britain. It includes provisions for important habitats to be designated and protected as Sites of Special Scientific Interest (SSSIs). Numerous plant and animal species, and the places that they use for shelter and protection, are also protected under the Act, including all birds, their nests and eggs.

#### Countryside and Rights of Way Act 2000

Referred to as the CROW Act, this legislation increases the protection of SSSIs and strengthens wildlife enforcement action. The Act also strengthens the protection of protected species under the Wildlife and Countryside Act 1981 (as amended) through the introduction of a new offence of 'reckless disturbance'.

## Natural Environment and Rural Communities Act 2006

This Act places a duty on all public bodies and statutory undertakers to have due regard to the conservation of biodiversity in all their functions. It also requires the publication of a list of habitats and species of principal importance for the conservation of the biodiversity. This list, known as the Section 41 list, includes all Priority Habitats and Species of Principal Importance for the Conservation of Biodiversity in England.

#### Protection of Badgers Act 1992

This Act was introduced primarily for animal welfare reasons, as opposed to species conservation. It provides protection of badgers and their setts.

#### Hedgerow Regulations 1997 (as amended)

These Regulations include provisions for the protection of hedgerows and make it an offence to remove 'important' hedgerows without consent from the local planning authority. Where planning permission is granted for a development proposal, the removal of 'important' hedgerows is deemed to be permitted.

# **Species legislation and conservation status**

#### **Invertebrates**

A number of UK invertebrates are protected by international and national legislation, including the EC Habitats Directive (1992) and the Wildlife and Countryside Act 1981 (as amended). In addition, numerous species are Priority Species.

#### **Plants**

All wild plants are protected against unauthorised removal or uprooting under Section 13 of the Wildlife and Countryside Act 1981 (as amended). Plants listed on Schedule 8 of the Act (e.g. stinking goosefoot, red helleborine, monkey orchid) are afforded additional protection against picking, uprooting, destruction and sale. Bluebell (*Hyacinthoides non-scripta*) is protected against sale only. Further species are also protected under the Conservation of Habitats and Species Regulations 2017 (as amended).

Notable plant species include those that are listed as:

- Nationally vulnerable A taxon is Vulnerable when the best available evidence indicates that
  it meets any of the criteria A-E for Vulnerable, and is therefore considered to be facing a high
  risk of extinction in the wild (Cheffings C M & Farrell L (Eds) (2005) Species Status No. 7 The
  Vascular Red Data List for Britain, JNCC (online)
- Nationally scarce species recorded in 16-100 hectads in Great Britain
- Nationally rare species occurring in 15 or fewer hectads in Great Britain

Section 14 of the Wildlife and Countryside Act 1981 (as amended) prohibits the planting of certain invasive plant species in the wild, or otherwise causing them to grow there. Prohibited plants are listed on Part 2 of Schedule 9 and include Japanese knotweed, Himalayan balsam and giant hogweed.

#### **Amphibians**

There are seven native amphibian species present in Britain. These are afforded varying degrees of protection under national and European legislation. Great crested newts and their habitat are afforded full protection under UK and European legislation, including the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way (CRoW) Act 2000 and the Conservation of Habitats and Species Regulations 2017 (as amended). Together, this legislation makes it illegal to:

- Deliberately capture, injure or kill a great crested newt.
- Damage or destroy any place used for shelter or protection, including resting or breeding places; or intentionally or recklessly obstruct access to such a place.
- Deliberately, intentionally or recklessly disturb great crested newts.

Great crested newt and common toad are Priority Species.

#### **Reptiles**

Slow-worm, viviparous/common lizard, adder and grass snake are protected under the Wildlife and Countryside Act 1981 (as amended) against intentional killing and injuring. These species are also Priority Species.

#### **Birds**

The bird breeding season generally lasts from March to early September for most species. All birds are protected under the Wildlife and Countryside Act (1981) (as amended) and the Countryside & Rights of Way (CRoW) Act 2000. This legislation makes it illegal, both intentionally and recklessly, to:

- 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;
- take or destroy the eggs of any wild bird.

Furthermore, birds listed on Schedule 1 of the Wildlife & Countryside Act 1981 (as amended) are protected against intentional or reckless disturbance whilst nest building and when at or near a nest containing eggs or young. Dependent young of Schedule 1 species are also protected against disturbance.

In addition to this legal protection, the leading governmental and non-governmental conservation organisations in the UK have reviewed the population status of the birds regularly found here and produced a list of birds of conservation concern. Of the 244 species assessed, 67 were placed on the Red List of high conservation concern, 96 on the Amber List of medium conservation concern and 81 on the Green List of low conservation concern:

- Red list species are those that are Globally Threatened according to IUCN criteria; those whose population or range has declined rapidly in recent years; and those that have declined historically and not shown a substantial recent recovery.
- Amber list species are those with an unfavourable conservation status in Europe; those whose
  population or range has declined moderately in recent years; and those with internationally
  important or localised populations.

#### **Badgers**

Badger (*Meles meles*) is a widespread and common species. However, they are legally protected under The Protection of Badgers Act 1992, due to animal welfare concerns. Under this legislation it is illegal to:

- Wilfully kill, injure, take, or cruelly ill-treat a badger, or attempt to do so.
- Intentionally or recklessly interfere with a sett by disturbing badgers whilst they are occupying
  a sett, damaging or destroying a sett, or obstructing access to it.

A badger sett is defined in the legislation as "any structure or place, which displays signs indicating current use by a badger".

#### **Bats**

There are 18 species of bats found in the UK, 17 of which are known to breed here. The conservation status of these species is summarised in the table below:

Common name	Scientific name	IUCN category	Priority Species
Greater horseshoe	Rhinolophus ferrumequinum	LC	Yes
Lesser horseshoe	Rhinolophus hipposideros	LC	Yes
Daubenton's	Myotis daubentonii	LC	No
Brandt's	Myotis brandtii	LC	No
Whiskered	Myotis mystacinus	LC	No
Natterer's	Myotis nattereri	LC	No
Bechstein's	Myotis bechsteinii	NT	Yes
Alcathoe bat	Myotis alcathoe	DD	No
Greater mouse-eared	Myotis myotis	LC	No
Common pipistrelle	Pipistrellus pipistrellus	LC	No
Soprano pipistrelle	Pipistrellus pygmaeus	LC	Yes
Nathusius's pipistrelle	Pipistrellus nathusii	LC	No

Common name	Scientific name	IUCN category	Priority
			Species
Serotine	Eptesicus serotinus	LC	No
Noctule	Nyctalus noctula	LC	Yes
Leisler's	Nyctalus leisleri	LC	No
Barbastelle	Barbastellabarabastellus	NT	Yes
Brown long-eared	Plectorus auritus	LC	Yes
Grey long-eared	Plectorus austriacus	LC	No

<sup>\*</sup>IUCN categories: LC Least Concern, NT Near Threatened, DD Data Deficient

All bat species are afforded full protection under UK and European legislation, including the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended). Together, this legislation makes it illegal to:

- Deliberately capture, injure or kill a bat.
- Damage or destroy a bat roost; or intentionally or recklessly obstruct access to bat roosts.
- Deliberately, intentionally or recklessly disturb, a bat, including in particular any disturbance which is likely:
  - to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or
  - in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
  - to affect significantly the local distribution or abundance of the species to which they belong.

A bat roost is defined in the legislation as "any structure or place which a bat uses for shelter or protection". Roosts are protected whether or not bats are present at the time.

#### Otter

Otters (*Lutra lutra*) are fully protected under UK and European legislation, including the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way (CRoW) Act 2000 and the Conservation of Habitats and Species Regulations 2017 (as amended). Together, this legislation makes it illegal to:

- Deliberately capture, injure or kill an otter
- Damage or destroy any structure or place used for shelter or protection by an otter; or intentionally or recklessly obstruct access to such a place.
- Deliberately, intentionally or recklessly disturb an otter whilst it is occupying a structure or
  place which it uses for shelter or protection.

Otter is listed as a Priority Species.

#### Water vole

Water vole are afforded full protection under the Wildlife and Countryside Act 1981 (as amended), which make it illegal to:

- Kill, injure or take a water vole.
- intentionally or recklessly destroy, damage or obstruct access to any structure or place that is used by a water vole for shelter or protection.
- intentionally or recklessly disturb a water vole whilst it is in a place used for shelter or protection.

Water vole is also a Priority Species.

### Common/Hazel dormouse

The common dormouse is fully protected under UK and European legislation, including the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way (CRoW) Act 2000 and the Conservation of Habitats and Species Regulations 2017 (as amended). Together, this legislation makes it illegal to:

- Deliberately capture, injure or kill a dormouse.
- Damage or destroy any structure or place used for shelter or protection by a dormouse; or intentionally or recklessly obstruct access to such a place.
- Deliberately, intentionally or recklessly disturb a dormouse whilst it is occupying a structure or place which it uses for shelter or protection.

The dormouse is a Priority Species.

# **Appendix 2: Relevant National Planning Policy**

# National planning policy

#### **National Planning Policy Framework (2019)**

The National Planning Policy Framework (NPPF) includes the Government's policy on the protection of biodiversity through the planning system. The following policies are relevant to the Proposed Development:

- 170. Planning policies and decisions should contribute to and enhance the natural and local environment by:
- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b) recognising the intrinsic character and beauty of the countryside, and the wider

benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.
- 171. Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework53; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.
- 175. When determining planning applications, local planning authorities should apply the following principles:
  - a) 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;
  - b) 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;

- c) 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<sup>1</sup> and a suitable compensation strategy exists; and
- d) 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."

177. The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

<sup>&</sup>lt;sup>1</sup> For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat.

# **Appendix 3: Relevant Regional and Local Planning Policy**

# Mid Sussex District Plan (2014-2031)

# Nature and Quality of Development – Natural Resources Policy DP37: Trees, Woodland and Hedgerows

Trees, woodland and hedgerows make a valuable landscape, amenity and biodiversity contribution to the District, both in urban and rural areas. Mid Sussex is a heavily wooded district with two thirds of this being ancient woodland.

Trees, woodland and hedgerows form part of the District's green infrastructure, and in particular, are important for health and well-being, biodiversity, and increasing resilience to the effects of climate change.

Ancient woods are irreplaceable wildlife habitats with complex ecological conditions that have developed over centuries. They contain a wide range of wildlife including rare species, however, because the resource is limited and highly fragmented, ancient woodland and their associated wildlife are particularly vulnerable and must be protected from damaging effects of adjacent and nearby land uses that could threaten the integrity of the habitat and survival of its special characteristics.

The District Plan recognises this contribution and will support the protection of trees, woodland and hedgerows, as well as encouraging new planting. Development will be required to incorporate trees, woodland and hedgerows into the design and landscaping scheme.

All hedgerows on farmland and open land are protected and consent is required from the District Council to remove them. The Hedgerow Regulations 1997 also define 'important' hedgerows as being of particular archaeological, historical, wildlife or landscape value.

The District Council will make Tree Preservation Orders or attach planning conditions, in line with national guidance, to protect specific trees, a group of trees or woodlands in the interests of amenity or where they are threatened by development. The amenity value of trees will take into account visibility and characteristics relating to the individual, collective and wider impact including:

- Size and form; and
- Future potential as an amenity; and
- Rarity, cultural or historical value; and
- Contribution to, and relationship with, the landscape; and
- Contribution to the character and appearance of a conservation area.

#### Strategic Objectives:

- 3) To protect valued landscapes for their visual, historical and biodiversity qualities;
- 4)To protect valued characteristics of the built environment for their historical and visual qualities; and
- 5) To create and maintain easily accessible green infrastructure, green corridors and spaces around and within the towns and villages to act as wildlife corridors, sustainable transport links and leisure and recreational routes.

Evidence Base: Green Infrastructure mapping; Mid Sussex Ancient Woodland Survey, Tree and Woodland, Management Guidelines, Tree Preservation Order records.

The District Council will support the protection and enhancement of trees, woodland and hedgerows, and encourage new planting. In particular, ancient woodland and aged or veteran trees will be protected.

Development that will damage or lead to the loss of trees, woodland or hedgerows that contribute, either individually or as part of a group, to the visual amenity value or character of an area, and/ or that have landscape, historic or wildlife importance, will not normally be permitted.

Proposals for new trees, woodland and hedgerows should be of suitable species, usually native, and where required for visual, noise or light screening purposes, trees, woodland and hedgerows should be of a size and species that will achieve this purpose.

Trees, woodland and hedgerows will be protected and enhanced by ensuring development:

- incorporates existing important trees, woodland and hedgerows into the design of new development and its landscape scheme; and
- prevents damage to root systems and takes account of expected future growth; and
- where possible, incorporates retained trees, woodland and hedgerows within public open space rather than private space to safeguard their long-term management; and
- has appropriate protection measures throughout the development process; and
- takes opportunities to plant new trees, woodland and hedgerows within the new development to enhance on-site green infrastructure and increase resilience to the effects of climate change; and
- does not sever ecological corridors created by these assets.

Proposals for works to trees will be considered taking into account:

- the condition and health of the trees; and
- the contribution of the trees to the character and visual amenity of the local area; and
- the amenity and nature conservation value of the trees; and
- the extent and impact of the works; and
- any replanting proposals.

The felling of protected trees will only be permitted if there is no appropriate alternative. Where a protected tree or group of trees is felled, a replacement tree or group of trees, on a minimum of a 1:1 basis and of an appropriate size and type, will normally be required. The replanting should take place as close to the felled tree or trees as possible having regard to the proximity of adjacent properties.

Development should be positioned as far as possible from ancient woodland with a minimum buffer of 15 metres maintained between ancient woodland and the development boundary.

## **DP38: Biodiversity**

Coupled with the pressure for new development is the importance of conserving and enhancing areas of importance for biodiversity and nature conservation. The District has a number of valued landscapes, habitats and species which need to be protected and enhanced The District Plan recognises the importance of the protection and conservation of areas of importance for nature conservation and the valuable contribution made by these sites and features in conserving biodiversity and geodiversity of our natural heritage, together with opportunities for education and employment. The District Plan also recognises the importance of the protection and conservation of areas outside of designated areas where these are of

nature conservation value or geological interest especially where they contribute to wider ecological networks.

Mid Sussex lies adjacent to the Ashdown Forest (within Wealden District), a European designated Special Protection Area and Special Area of Conservation. Policy DP17: Ashdown Forest Special Protection area (SPA) and Special Area of Conservation (SAC) looks at protecting this area. Mid Sussex also contains 13 Sites of Special Scientific Interest, 50 Sites of Nature Conservation Importance and 6 Local Nature Reserves. Nearly 16% of the District is covered by Ancient Woodland.

This policy reflects the requirements of the National Planning Policy Framework (section 11) where it relates to biodiversity and the natural environment. It takes into account the duty on the District Council to have regard to the purpose of conserving biodiversity. Development proposals should be informed by local ecological and geological evidence and national guidance. Local ecological evidence should include protected and notable species as well as considering the potential effects of the development on the habitats and species on the Natural Environment and Rural Communities Act 2006 section 41 list.

DP38: Biodiversity Strategic Objectives:

- 3) To protect valued landscapes for their visual, historical and biodiversity qualities; and
- 5) To create and maintain easily accessible green infrastructure, green corridors and spaces around and within the towns and villages to act as wildlife corridors, sustainable transport links and leisure and recreational routes.

Evidence Base: Biodiversity 2020; Biodiversity Action Plan; Biodiversity Opportunity Areas; Green Infrastructure mapping; Habitats and Species Records; Mid Sussex Ancient Woodland Survey; Mid Sussex Infrastructure Delivery Plan; The Natural Choice: Securing the Value of Nature; West Sussex SNCI Register.

Biodiversity will be protected and enhanced by ensuring development:

- Contributes and takes opportunities to improve, enhance, manage and restore biodiversity
  and green infrastructure, so that there is a net gain in biodiversity, including through
  creating new designated sites and locally relevant habitats, and incorporating biodiversity
  features within developments; and
- Protects existing biodiversity, so that there is no net loss of biodiversity. Appropriate
  measures should be taken to avoid and reduce disturbance to sensitive habitats and
  species. Unavoidable damage to biodiversity must be offset through ecological
  enhancements and mitigation measures (or compensation measures in exceptional
  circumstances); and
- Minimises habitat and species fragmentation and maximises opportunities to enhance and restore ecological corridors to connect natural habitats and increase coherence and resilience; and
- Promotes the restoration, management and expansion of priority habitats in the District; and
- Avoids damage to, protects and enhances the special characteristics of internationally designated Special Protection Areas, Special Areas of Conservation; nationally designated Sites of Special Scientific Interest, Areas of Outstanding Natural Beauty; and locally designated Sites of Nature Conservation Importance, Local Nature Reserves and Ancient Woodland or to other areas identified as being of nature conservation or geological interest, including wildlife corridors, aged or veteran trees, Biodiversity Opportunity Areas, and Nature Improvement Areas.

Designated sites will be given protection and appropriate weight according to their importance and the contribution they make to wider ecological networks.

Valued soils will be protected and enhanced, including the best and most versatile agricultural land, and development should not contribute to unacceptable levels of soil pollution.

Geodiversity will be protected by ensuring development prevents harm to geological conservation interests, and where possible, enhances such interests. Geological conservation interests include Regionally Important Geological and Geomorphological Sites.

# **Appendix 4: Phase 2 ecological survey summary**

Table A4: Summary of Phase 2 Ecological surveys completed / in progress

Survey	Survey date		Details	Results to date	
	Northern site	Central site	Southern site		
Great crested newt survey	April - June 2015; updated May-June 2020	May-June 2020	May-June 2020	Habitat Suitability Index (HSI) of water bodies within 250m of the site (2015; 2020). Environmental DNA (eDNA) survey (2015; 2020) and population estimate survey (2015) of suitable ponds where access granted.	Great crested newts were detected in on-site ditches and off-site ponds through eDNA survey in 2020. 2015 surveys included population estimate surveys of several off-site ponds. Scrub, woodland and grassland within site provide suitable terrestrial habitat for this species.
Reptile survey	April-June 2020	May – July 2020; in progress	April – June 2020	Deployment and seven checks of artificial refugia in suitable habitat throughout site	Grass snake and slow worm were recorded in suitable habitat throughout the site. Numbers varied from 'low' (grass snake) and 'good' (slow worm) around the field boundaries in the north of the site, to 'exceptional' in the grassland/scrub habitat mosaic in the southern site. Central site reptile survey on-going at time of writing.
Breeding bird survey	April - June 2020	April-June 2020	April – June 2020	Three visits to record the breeding bird assemblage and estimate the number of pairs/ territories within the site.	<ul> <li>A total of 32 bird species were recorded during the course of the surveys within the site, of which 23 species were confirmed, probably or possibly breeding within the survey area. These included:         <ul> <li>Starling, which was confirmed to have bred, and song thrush, which possibly bred. These are Priority Species and Red-listed Birds of Conservation Concern (Eaton et al 2015).</li> <li>Nightingale and mistle thrush, which probably bred. These are Red-listed Birds of Conservation Concern (Eaton et al 2015).</li> <li>Dunnock, which possibly bred. This is an Amber-listed Bird of Conservation Concern and Priority Species.</li> <li>Bullfinch, which possibly bred. This is an Amber-listed Bird of Conservation Concern.</li> </ul> </li> </ul>
Hazel dormouse survey	August 2019-June 2020	May – October 2020; in progress	April – October 2020; in progress	Deployment and checks of dormouse nesting tubes within hedgerows (Bright et al., 2006).	No evidence of dormouse recorded to date; survey on-going in central and southern site.
Badger survey	November 2019	May 2020	May 2020	Search for signs of badger activity e.g. setts, prints and latrines.	Badger latrine recorded in central site. Entire site provides suitable foraging habitat for badger. No setts recorded to date.
Bat roost survey	April 2015; September 2019	May 2020	July 2020	A survey to assess trees and the stable block building for their potential to support roosting bats.  Two dawn re-entry surveys of the stable block (2015) to confirm roost presence. Building inspection update in 2019 recorded evidence of current use. Update emergence/re-entry surveys to be completed to inform planning application.	Mature trees within the site with potential to support roosting bats; further survey to be undertaken to establish if roosts present in any trees which would be removed or otherwise affected by development.  Presence of low-status long-eared bat roost confirmed in stable building.
Bat activity survey	August-Oct 2019; April- July 2020	2020; in progress	April – Oct 2020; in progress	Monthly bat activity transect surveys completed to determine the importance of the survey area as foraging habitat/movement corridor for bats and identify important features for bats. Three separate transects provide coverage for whole site.	On-going surveys indicate moderate levels of bat activity, by a minimum of seven bat species. Activity dominated by common pipistrelle bats; other species include soprano pipistrelle, <i>Myotis</i> species, Noctule, serotine, long-eared bats and Nathusius pipistrelle. Bat activity highest along mature tree lines/woodland edge within the site.
Bat static detector survey	August-Oct 2019; April- July 2020		April – Oct 2020; in progress	Static bat detectors are used to record bats within the survey area for at least five nights per month. Six static detectors deployed across the site. The recorded calls were downloaded and analysed to determine the species present and an index of activity.	

# **Appendix 5: Baseline evaluation criteria**

#### **Baseline** evaluation criteria

Key evaluation categories are as follows:

- International value (internationally designated sites, or sites meeting criteria for international designation. Sites supporting populations of internationally important species);
- UK value (sites with UK importance);
- National value (nationally designated sites (e.g. SSSIs) or sites meeting SSSI selection criteria. Sites
  containing viable areas of threatened Priority Habitat or supporting a viable population of Red
  Data Book species or supplying critical elements of their habitat requirements);
- Regional value (sites exceeding county-level designations but not meeting SSSI criteria. Sites containing viable areas of threatened habitats on the Regional BAP, supporting viable populations of species that are nationally scarce or included in the regional BAP due to rarity);
- County value (sites meeting criteria for county or metropolitan designations. Site containing a viable area of a threatened habitat identified on the county BAP or supporting viable populations of county or metropolitan rarities e.g. county BAP or county 'Red Data Book' species);
- District value (undesignated sites or features that are considered to appreciably enrich the habitat resource within the context of the Borough or District);
- Parish value (areas of habitat considered to appreciably enrich the habitat resource within the context of a parish or neighbourhood);
- Sub-Parish (ecological resource not meeting any of the above criteria).

#### Additional criteria employed were from the following:

- Schedules and Annexes of UK and European wildlife legislation (e.g. Wildlife and Countryside Act (1981) (as amended) and Conservation of Habitats and Species Regulations 2010 (as amended);
- International conventions on wildlife (e.g. Bern Convention, Bonn convention);
- Habitats and species of Principal Importance.
- Local Biodiversity Action Plans.
- Taxi-specific conservation lists (e.g. Red Data Lists; Red/Amber Lists).

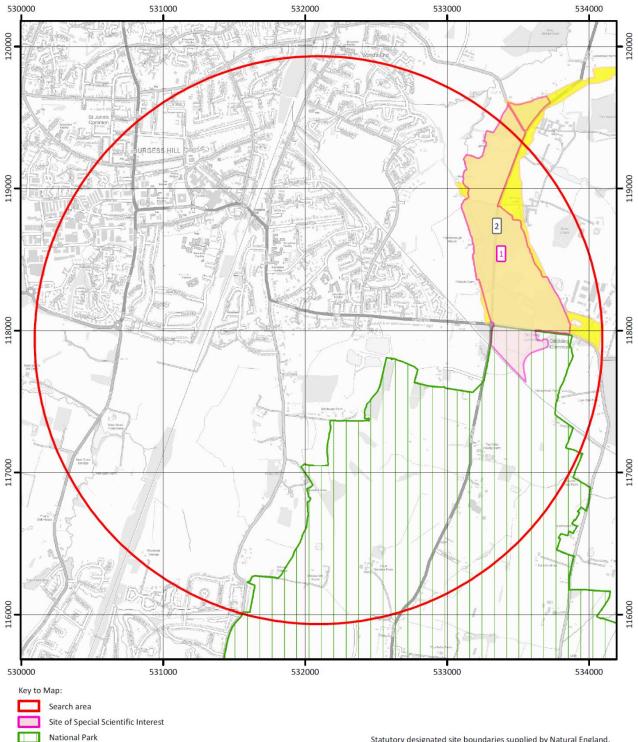
# Appendix 6: Designated sites of nature conservation value

## Map 1: Statutory site designations

## Land at Keymer Road, Burgess Hill + 2km radius

SxBRC/19/484 - 06/09/2019





# Maps

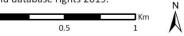
Country Park

Based on data currently held at the Sussex Biodiversity Record Centre, the following appear within the search radius:

Statutory site designations		
Site of Special Scientific Interest (SSSI)	Ditchling Common	
National Park	South Downs	
County Park	Ditchling Common	
Non-statutory site designations	·	
Local Wildlife Site (LWS)	L57 - St Georges Retreat L73 - Brambleside Meadow M07 - Burgess Hill Railway Lands M48 - Keymer Tile Works	
Local Geological Site (LGS)	TQ31/61 - Keymer Tileworks, Burgess Hill	

Statutory designated site boundaries supplied by Natural England. Contains public sector information licensed under the Open Government Licence v3.0.

Contains Ordnance Survey data © Crown copyright and database rights 2019.

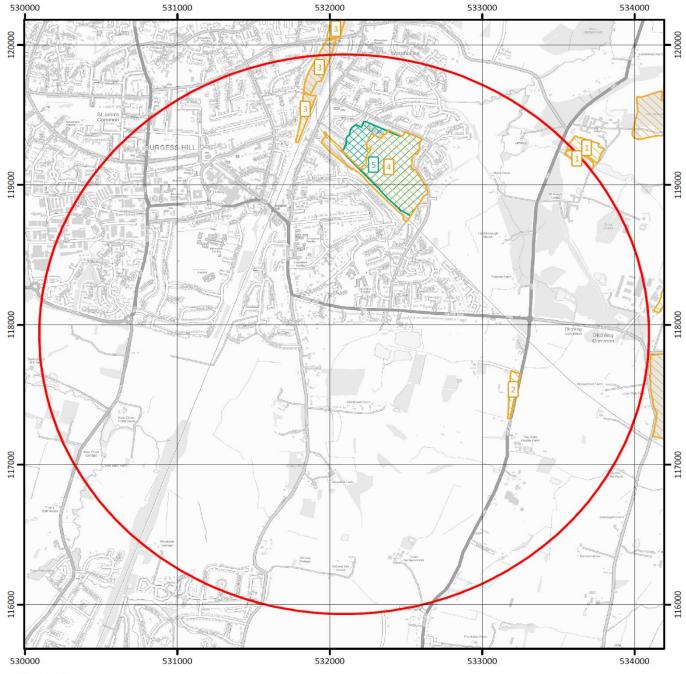


## Map 2: Non-statutory site designations

#### Land at Keymer Road, Burgess Hill + 2km radius

SxBRC/19/484 - 06/09/2019





Key to Map:

Search area Local Wildlife Site

 $\times\!\!\times\!\!\times$ 

Local Geological Site

Local Wildlife Site and Notable Road Verge data provided by local authorities. Local Geological Site data created by SxBRC in partnership with Sussex Geodiversity Group.

Contains Ordnance Survey data © Crown copyright and database rights 2019.

0 0.5 1

Based on data currently held at the Sussex Biodiversity Record Centre, the following appear within the search radius:

Statutory site designations		
Site of Special Scientific Interest (SSSI)	Ditchling Common	
National Park	South Downs	
County Park	Ditchling Common	
Non-statutory site designations		
Local Wildlife Site (LWS)	L57 - St Georges Retreat L73 - Brambleside Meadow M07 - Burgess Hill Railway Lands M48 - Keymer Tile Works	
Local Geological Site (LGS)	TQ31/61 - Keymer Tileworks, Burgess Hill	

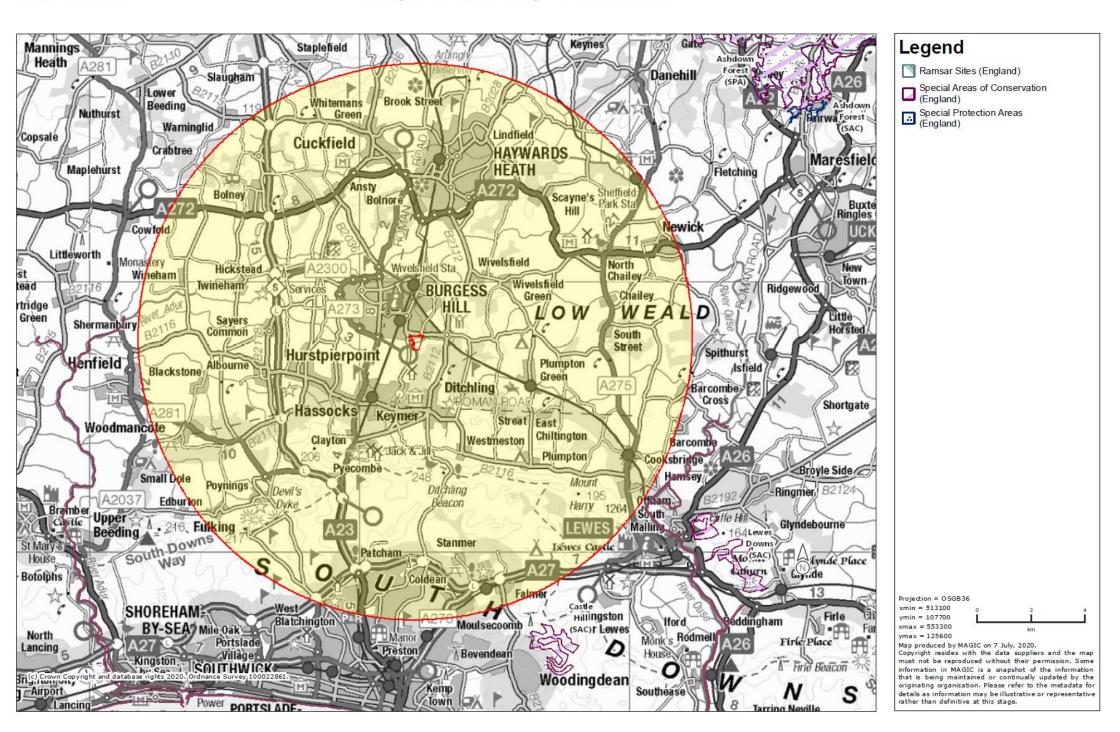


# National sites map- 5km buffer





# European sites map- 10km buffer





Armada House, Odhams Wharf, Topsham, Exeter EX3 0PB t: 01392 260420 e: info@eadecology.co.uk