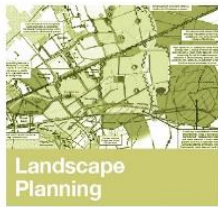




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JAMES BLAKE ASSOCIATES

Ecological Constraints Plan

for

Phases 2-6 and Relief Road,

Haverhill,

Suffolk

On behalf of

Persimmon Homes (Suffolk)

November 2019

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		RH	SR	JBA	November 2019
<p>Job Number: JBA 18/351 and 17/364</p>		 <p>JAMES BLAKE A S S O C I A T E S</p> <p>Title: Ecological Constraints Plan of Phases 2-6 and Relief Road, Haverhill, Suffolk.</p>			

Disclaimer

James Blake Associates Ltd have made every effort to meet the client’s brief. However, no survey ensures complete and absolute assessment of the changeable natural environment. The findings in this report were based on evidence from thorough survey: It is important to remember that evidence can be limited, hard to detect or concealed by site use and disturbance. When it is stated that no evidence was found or was evident at that point in time, it does not mean that species are not present or could not be present at a later date: The survey was required because habitats are suitable for a given protected species, and such species could colonise areas following completion of the survey.

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Background

James Blake Associates Ltd were commissioned by Persimmon Homes (Suffolk) to create an Ecological Constraints Plan for land at Haverhill Phases 2-6 and the Relief Road, Suffolk (grid ref TL 670 468, taken from the centre of the site).

There is a general biodiversity duty in the National Planning Policy Framework (NPPF) 2019, placing responsibility on Local Planning Authorities to aim to conserve, enhance and encourage biodiversity in and around development. Section 40 of the Natural Environment and Rural Communities (NERC) Act (2006) requires every public body in the exercising of its functions to 'have regard, so far as is consistent with the proper exercise of these functions, to the purpose of conserving biodiversity'. Biodiversity, as covered by the section 40 duty, includes all biodiversity, not just the habitats and species of principal importance. However, there is an expectation that public bodies would refer to the Section 41 list when complying with the Section 40 duty.

Should the following recommended ecological enhancements be followed, ecological value of the development site should be retained and improved.

Ecological survey information

Ecological recommendations and constraints are based on data collected from the following survey reports:

- *Preliminary Ecological Appraisal* (JBA January 2019);
- *Great Crested Newt eDNA Survey* (JBA June 2019);
- *Reptile Survey* (JBA June 2019);
- *Botanical Survey (including Sulphur Clover Survey)* (JBA August 2019);
- *Hedgerow Survey* (JBA August 2019);
- *Breeding Bird Survey* (JBA October 2019);
- *Badger Survey* (JBA October 2019);

Please note that ecological constraints and recommendations with regards to dormouse, bat activity and wintering bird survey have not been included within this ecological constraints plan as survey work is ongoing.

SUMMARY OF ECOLOGICAL CONSTRAINTS AND RECOMMENDATIONS

Recommendations have been made in order to safeguard and enhance the biodiversity on site. See Appendix A for the ecological constraints plan.

The findings from the ecological surveys are summarised below:

Preliminary Ecological Appraisal (PEA) (JBA January 2019)

Survey summary

The PEA highlighted that further surveys were recommended for the following:

- Badger survey
- Breeding Bird survey
- Wintering Bird survey
- Reptile survey
- Great Crested Newt eDNA
- Hedgerow survey
- Botanical survey
- Hedgerow survey
- Bat activity survey
- Dormouse survey
- Precautionary measures for scrub and hedgerow removal

Ecological constraints

- An early mature English oak (*Quercus robur*) with crack and knot holes deemed to have 'Moderate' bat roost potential (BRP). Bat emergence/return to roost surveys will be required if this tree is scheduled for removal.

Ecological enhancement recommendations

- A Landscape and Ecological Management Plan (LEMP) should be produced which will detail necessary landscaping and ecological management.
- Landscaping should incorporate native or wildlife attracting trees, shrubs and

wildflower areas.

- Hedgerows and vegetation of significant ecological value to be retained and enhanced to create corridors and shelter/foraging for wildlife including birds, bats and badgers. See Appendix A for recommended vegetation retention plans.
- Hedgehogs are Species of Principal Importance (SPI) under the NERC Act 2006 and are protected by the Wild Mammal Protection Act 1996. 'Hedgehog links' (i.e. 15cm diameter gaps at the base of fences) are recommended to enable small mammals to move through the development.
- Bird boxes to be installed onto new buildings on site to provide nesting opportunities. Boxes should be located out of direct sunlight and close to, but not restricted by, vegetation. Detailed specifications of bird box types are covered in the breeding bird survey section of the constraints plan.
- Bat boxes to be installed on the proposed buildings or retained trees within the site to provide additional roosting opportunities.

Great Crested Newt eDNA Survey (JBA June 2019)

Survey Summary

The aim of the survey was to determine the presence or likely absence of great crested newt (GCN) within 500m of the proposed site boundary. Six ponds were identified within 500m of the site on OS maps, however, two ponds had been filled in, one pond was dry and for the two remaining ponds, access was not granted.

Water samples were taken from a non-ecologically separated pond and tested for environmental DNA (eDNA) to determine the presence or likely absence of GCN. Laboratory testing found no evidence of GCN DNA in the water sample. It was therefore considered unlikely that GCN are currently using the surveyed pond within 500m of the site boundary.

For a comprehensive detailing of the GCN eDNA survey please refer to the full survey report issued (JBA 2019).

Ecological constraints

No ecological constraints were identified with regards to GCN.

Ecological enhancement recommendations

Improving the terrestrial and aquatic habitats on site to enhance post-development conditions for amphibians such as:

- Pond creation;
- Ditch improvement for commuting newts;
- Habitat corridors with wildflower and grassland mixes; and
- Creation of hibernacula (See Appendix B).

Reptile Survey (JBA June 2019)

Survey summary

No reptile species were recorded using the site during the survey period, therefore no mitigation or constraints to the development apply to the site with respect to reptiles. However, the below recommendations could help enhance the biological value of the site for reptiles.

For a comprehensive detailing of the reptile survey (JBA 2019) please refer to the full survey report issued.

Ecological constraints

No ecological constraints were identified with regards to reptiles.

Ecological enhancement recommendations:

- Log and rock piles located around the edge of the site could provide potential refuge habitat for reptiles and other wildlife;
- Grass clippings and other vegetation could be collected and composted in a

corner of the site or near on site water bodies. This may (in time) become suitable breeding for grass snake and other wildlife; and

- Creation of hibernacula (See appendix B).

Botanical Survey (including Sulphur Clover Survey) (JBA August 2019)

Survey summary

A botanical survey was undertaken incorporating a search for sulphur clover (*Trifolium ochroleucon*), a Nationally Scarce species which had been previously recorded on the site (RPS 2009), and a survey for other rare and/or protected plant species and habitats of interest.

The survey found the presence of sulphur clover; dwarf spurge (*Euphorbia exigua*), a Near Threatened species, was also found on site, see Appendix A for location. Bee (*Ophrys apifera*) and pyramidal orchids (*Anacamptis pyramidalis*) were observed on site.

For a comprehensive detailing of the botanical survey (JBA 2019) please refer to the full survey report issued.

Ecological constraints

- Nationally Scarce sulphur clover was recorded on site in association with hedgerow H2 (Appendix A). The hedge and its margins (at least 4m from hedgerow base either side) must be managed sensitively to ensure the continued survival and ideally, expansion, of the Sulphur Clover. Information with regards to landscape management should be provided within a LEMP.
- Near Threatened Dwarf Spurge (*Euphorbia exigua*) was recorded within the scrub south of the site (see Appendix A). It is recommended that this area is retained by the development and managed appropriately to conserve and enhance its ecological value.

Ecological enhancement recommendations:

- It is recommended that the area of scrub (see Appendix A) which supports a plant community of interest (including Dwarf Spurge along with a variety of

other herbaceous species, including bee orchid (*Ophrys apifera*) and pyramidal orchid (*Anacamptis pyramidalis*) is retained by the development and managed appropriately to conserve and enhance its ecological value.

- It is recommended that wildflower grassland should be established in suitable areas of public open space where the current interest is low. Native sources of plant species should be used.

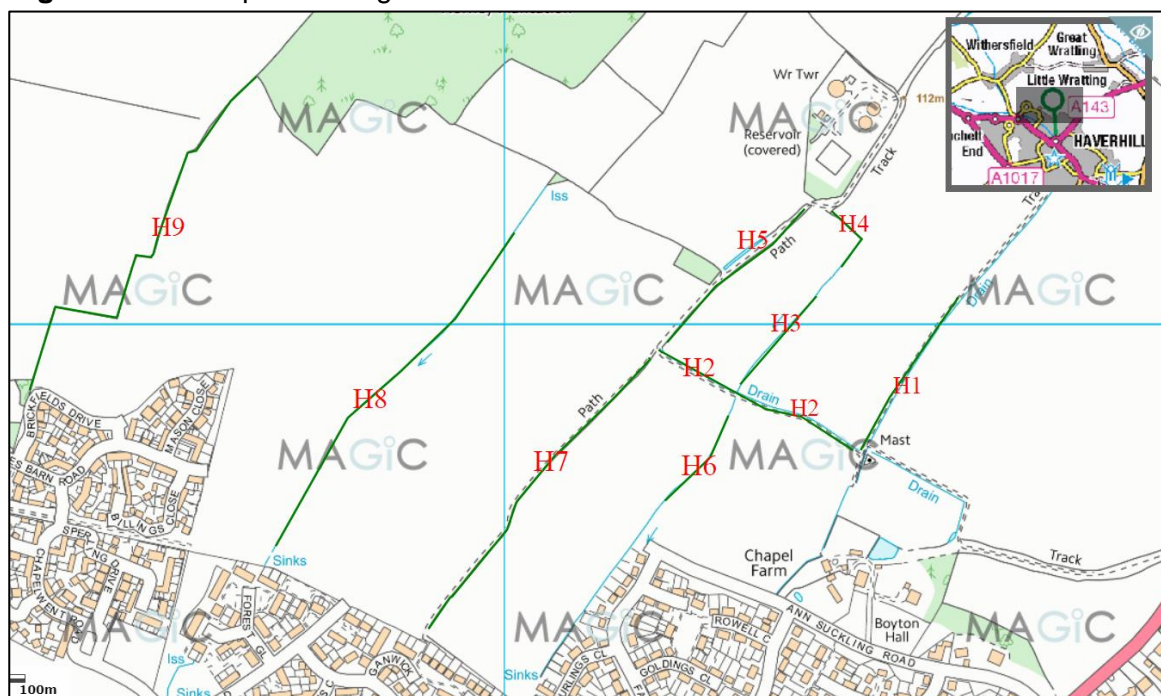
Hedgerow Survey (JBA August 2019)

Survey summary

Hedgerows on site were assessed for their ecological value using the definitions used by Hedgerow Regulations 1997. All hedgerows except H6 were considered to be species-rich. Four hedgerows; H2, H4, H5 and H7 were categorised as ‘important’ (see Figure 1 for locations of hedgerows on site). Hedgerow 2 (H2) contained several large stands of Nationally Scarce Sulphur Clover in the ground flora margins where it was locally dominant in places.

For a comprehensive detailing of the hedgerow survey (JBA 2019) please refer to the full survey report issued.

Figure 1: Site map with hedge numbers



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Ecological constraints

- Hedgerows H2, H4, H5 and H7 were categorised as 'important' under Hedgerow Regulation (1997) and it is recommended they are retained in their entirety by the development. These hedgerows should be afforded a wide buffer zone of at least 4m from hedge base on both sides to ensure that hedgerows and their associated ground flora are not adversely affected by the development. Specific management regimes would be highlighted in a LEMP.
- A sensitive lighting scheme should be drawn up which demonstrates the absence of light spill within any hedgerows which are shown to be important both during and post construction.

Ecological enhancement recommendations:

- It is recommended that an LEMP is designed for the site which takes into consideration results from the hedgerow survey.

Breeding Bird Survey (JBA October 2019)

Survey summary

Eight BoCC Red Listed species and ten Amber Listed species were recorded using the site. Thirteen species of bird were confirmed breeding on site, twenty one species were considered probably breeding with twelve species possibly breeding. The bird species noted using the site are generally common and widespread. No significant population of any species of interest was recorded. Key habitat for birds on site includes the mature trees, hedgerows, hedgerow margins and scrub.

For a comprehensive detailing of the breeding survey (JBA 2019) please refer to the full survey report issued.

Ecological constraints

- Off-site compensatory habitat should be provided for the 7 pairs of nesting skylark (*Alauda arvensis*) currently using open fields for breeding which are not able to be retained by the development.

- Any vegetation clearance/management should be undertaken outside the breeding bird season or following a clear nesting bird check. Nesting bird season is deemed to be March to September, weather dependant.

Ecological enhancement recommendations

- It is recommended that an LEMP is designed for the site which takes into consideration the results of the breeding bird survey.
- Open space within the development, including sustainable drainage systems (SuDS), is recommended to be designed, created and managed to provide nesting and foraging habitat for birds. Public access should be carefully managed to ensure that sensitive bird species and the habitats they depend on are not subject to disturbance.
- Proposed waterbodies within the SuDS scheme could be planted with emergent and aquatic species, for example marsh marigold (*Caltha palustris*), bog bean (*Menyanthes trifoliata*), water forget-me-not (*Myositis scorpiodes*), common reed (*Phragmites australis*), reed canary grass (*Phalaris arundinacea*) and pendulous sedge (*Carex pendula*). This will create a valuable wetland area to attract invertebrates for foraging swifts, swallows and house martins post-development.
- It is recommended that foraging habitat is retained and/or incorporated into Public Open Space (POS) within landscape plans.
- Retention of on-site foraging and nesting habitat, including hedgerows, scrub and mature trees within the site.
- Native hedgerow and tree planting such as site-native fruit and nut bearing species such as hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*) and field maple (*Acer campestre*) within the scheme, with areas of less intensive management to allow scrub encroachment will provide additional nesting and foraging habitat.
- It is recommended that a seed mix rich in seed-bearing species is used along boundaries and retained hedgerows (although not along hedgerows such as H2 where Sulphur Clover is present).

- Suitable areas of POS should be sown with shrubs, wildflowers and grasses, such as common bent (*Agrostis capillaris*), red fescue (*Festuca rubra*), and smooth-stalked meadow grass (*Poa pratensis*), to provide additional foraging resources for birds.
- Clear pathways should be mown and maintained in POS to reduce trampling of habitat and disturbance to birds.
- Any areas set aside primarily for birds and other key species should be fenced off or designed to reduce access by residents and their dogs.
- It is recommended that bird boxes suitable for house sparrow (Schwegler 1SP), kestrel (Schwegler no.28), swifts (Schwegler 16S swift boxes) and starling (Schwegler 3SV) are used. House martin nest cups (No. 13 Schwegler Modular House Martin Nest) can be installed on buildings.

Badger Survey (JBA October 2019)

Survey summary

The proposed development site currently shows evidence of recent badger activity. No setts were observed on site or within 30m of the site boundary, although three fresh dung pits were found along the site boundary. Mammal push-throughs were observed throughout the hedgerows and field margins which are likely to be associated with commuting and foraging activities. The badger survey should be updated if there is a delay of over six months from the date of this survey, before clearance of the site begins.

Ecological constraints

No constraints on the development with regards to badgers, however due to badgers using the site for foraging and commuting it is recommended that the following precautionary measures are implemented during construction works.

- The covering of excavations overnight to prevent animals falling in, or the provision of an escape ramp (e.g. secured scaffold boards/mammal ladders) allowing animals to climb out.

- Secure storage of all materials, fuels, wire fencing etc. that may harm badgers and other animals.

Ecological enhancement recommendations

- Retention of hedgerows allowing for commuting and foraging opportunities for wildlife.

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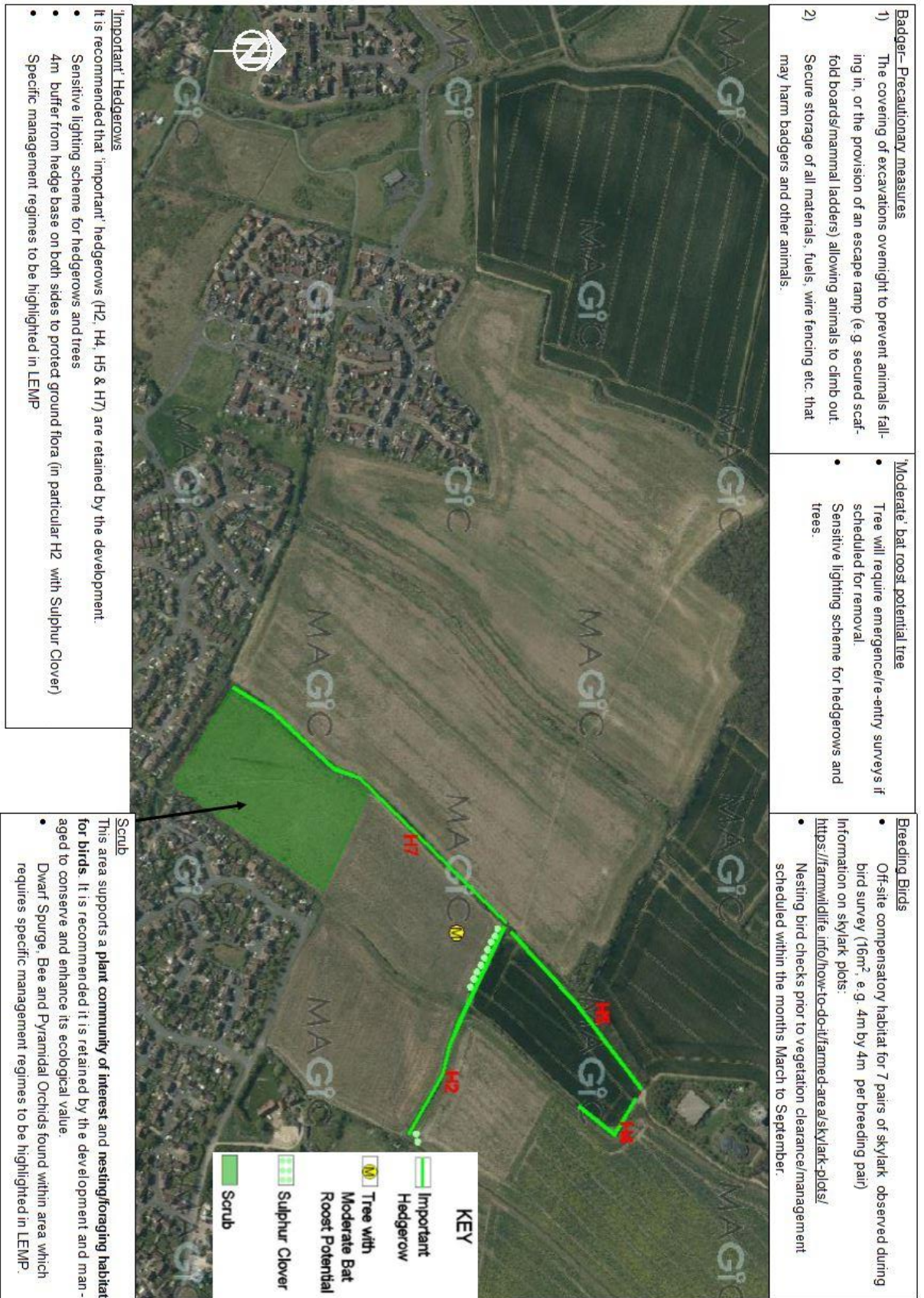
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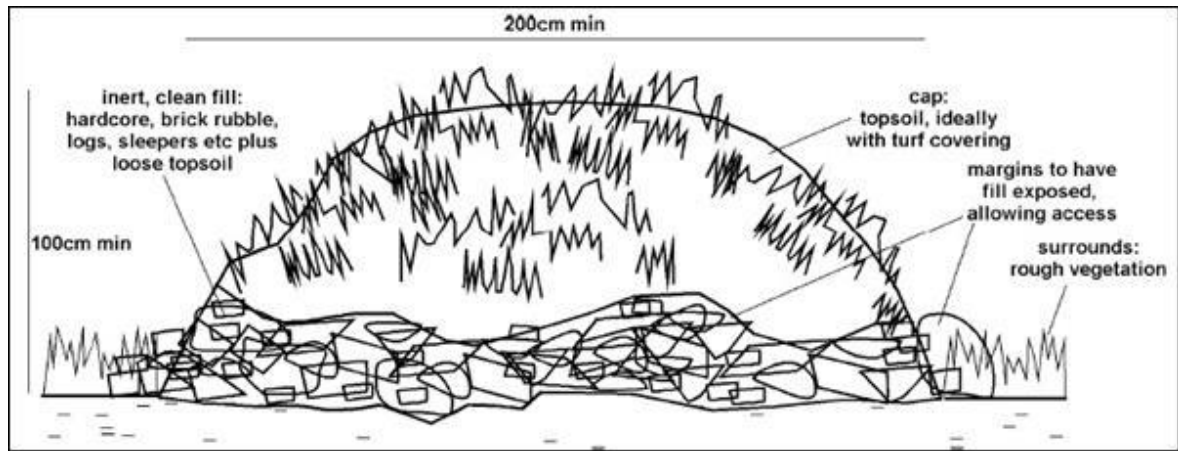
The Hedgerow Regulations (1997):

<http://www.legislation.gov.uk/uksi/1997/1160/contents/made>

Appendix A: Ecological Constraints Plan Map



Appendix B: Hibernacula design



Appendix C: Relevant protected species legislation

Species	Relevant Legislation	Level of Protection
Badgers	<ul style="list-style-type: none"> Protection of Badgers Act 1992 Badgers are also protected by the Wild Mammals (Protection) Act 1996 	The Protection of Badgers Act (1992) makes it an offence to intentionally or recklessly: <ul style="list-style-type: none"> Damage a badger sett or any part of it Destroy a badger sett Obstruct access to, or any entrance of a badger sett Disturb a badger whilst it is occupying a badger sett
Bats	<ul style="list-style-type: none"> Full protection under the Wildlife and Countryside Act (WCA) (1981) (Listed on Schedule 5) - as amended Classified as European protected species under Conservation of Habitats and Species Regulations 2010, as amended Also protected by the Wild Mammals (Protection) Act 1996 	Under the WCA (1981), it is an offence to: <ul style="list-style-type: none"> intentionally kill, injure, or take any species of bat intentionally or recklessly disturb bats intentionally or recklessly damage destroy or obstruct access to bat roosts
Birds	<ul style="list-style-type: none"> Protection under the Wildlife and Countryside Act (1981) as amended 	Under the WCA (1981), it is an offence to: (with exceptions for certain species): <ul style="list-style-type: none"> Intentionally kill, injure or take any wild bird Intentionally take, damage or destroy nests in use or being built (including ground nesting birds) Intentionally take, damage or destroy eggs Species listed on Schedule 1 of the WCA or their dependant young are afforded additional protection from disturbance whilst nesting
Widespread reptiles	<ul style="list-style-type: none"> Partially protected under Schedule 5 of the Wildlife and Countryside Act (1981) as amended. 	Under the WCA (1981), it is an offence to: <ul style="list-style-type: none"> intentionally kill or injure these animals sell, offer for sale, advertise for sale, possess or transport for the purposes of selling any live or dead animals or part of these animals