



**Preliminary Ecological
Appraisal
Of
Silver Birches, Heronsgate
WD3 5DN
On behalf of
Richard Warman**



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1.0 Summary

- 1.1 A Preliminary Ecological Survey was carried out for Silver Birches, Heronsgate, Rickmansworth, WD3 5DN on the 27th March 2023. The purpose of this report is to support a planning application for the proposed development of a residential dwelling. The client proposes the demolition of an existing residential property and associated outbuildings and the construction of a new residential dwelling in the immediate vicinity of the existing property. The development in question is currently in a pre-design phase and thus architectural designs for this project are not yet available at time of writing.
- 1.2 The application site (central grid reference TQ 02438 94286) comprised a 0.56ha parcel of land situated to the south-west of Nottingham Road and immediately adjacent south-east of Cherry Tree Lane. The site largely comprised of a two storey residential dwelling with a footprint of approximately 44m², garden area, three garden sheds, a standalone garage and a greenhouse. The garden area comprised amenity grassland, non-native garden plants and mature mixed scattered trees and a small patch of broadleaved woodland. A mixed species poor hedgerow was present along many of the boundary lines as well as within areas of the garden area itself.
- 1.3 An external and internal inspection of the building found no evidence of roosting bats. The large portion of the loft space had been converted into living quarters, making up the second story of the building in question. The roof and ridge tiles were in good condition, in addition to fascia and soffits. The roofing materials present on two of the garden sheds included pitched bitumen lined roofing. The third garden shed had a largely defunct open roof. The garage had a single layer corrugated roof. The three garden sheds and garage building were considered to be of negligible suitability for roosting bats.
- 1.4 The tightly mown amenity grassland on most of the site was sparse and considered largely unsuitable for reptiles.
- 1.5 The protected wildlife likely to make use of the area are nesting birds (nesting bird season only, March to September inclusive), and possible hazel dormice within hedgerow habitats on-site, as well as foraging bats within the surrounding open grassland, woodland, scattered trees and hedgerows.
- 1.6 Two mature trees within the woodland area to the west of the main dwelling contained features with potential to support roosting bats (TN1 & TN2), which were assessed as having moderate suitability to support roosting bats. It is understood that these trees are to be retained under the current scope of works.
- 1.7 No evidence of badger was identified on-site.
- 1.8 No further legally protected species were identified or considered to be using the site.
- 1.9 No invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were identified on site at the time of the survey.

- 1.10 Recommendations have been made within this report to minimise any potential impact of development on nesting birds. Recommendations have also been provided to enhance the biodiversity on site and provide habitats for wildlife.
- 1.11 This report should be read in full to understand the potential impacts of the proposed development on protected species and habitats and further actions required.

Key Recommendations

Nesting Birds

- i. It is recommended that all hedgerow or tree vegetation clearance within the proposed works zone take place outside of the nesting bird season. If this is not possible, it is recommended that a pre-works nesting bird check is undertaken by suitably qualified ECoW within 48 hours of works commencing. Any active nests identified must be appropriately buffered and left undisturbed until the young have fledged. The nesting bird season runs from March to September inclusive. It is understood that all hedgerow or trees outside of the proposed works zone are to be retained under the current scope of works.

Hazel dormice

- ii. It is recommended that a potential hazel dormouse nest and opened nut search be undertaken by an experienced ecologist no more than 48 hours prior to the works commencing within any hedgerow habitats, in order to minimise potential risk of disturbance. If dormouse field signs are found to be present, any further works should stop and a suitably qualified and licenced dormouse ecologist should be contacted for further advice.

Bats

- iii. It is recommended that any artificial lighting installed is designed to avoid illumination of potential foraging and commuting habitats for bats such as trees and hedgerows, on and adjacent to the site. It is recommended that any security lights are fitted with timers to reduce light pollution. See recommendations set out in section 5 of this report.

Lighting Recommendations

- iv. It is recommended that any artificial lighting installed is designed to avoid illumination of potential foraging and commuting habitats for bats, such as trees and hedgerows close to the margins of the application site.

Large Excavations

- v. Any large excavations to be left open overnight should be covered to prevent large mammals from becoming trapped. A scaffolding plank could also be placed into excavation to provide an escape route for large mammals.

Ecological Enhancement Opportunities

- 1.12 The proposed development provides opportunities to include ecological enhancement features such as:
- 1.13 Bat boxes installed externally on retained trees. Recommended boxes such as 1FF Schwegler Bat Box and 2F Schwegler Bat Box could be used. Bat boxes could also be erected on buildings using models such as the Beaumaris Woodstone Bat Box.
- 1.14 External nest boxes for birds such as 1B Schwegler Nest Box and 2M Schwegler Nest Box could be hung or attached to retained trees. Inbuilt internal bird nest boxes with entrance hole sizes for tit species and starlings, sparrow terrace boxes and swallow nest cups could be utilised to provide nesting opportunities for bird species that will nest in association with buildings.
- 1.15 It is recommended that native flowering and fruiting shrubs, trees, climbers and hedging plants that are beneficial to wildlife are included in the soft landscaping of the development. See appendix 4 for further information on bird and bat boxes in addition to planting lists for native wildlife beneficial species.

2.0 Introduction

2.1 Instruction

- 2.1.1 Growing Native were instructed in March 2023 by Richard Warman to undertake a Preliminary Ecological Appraisal of Silver Birches, a residential property and associated garden.
- 2.1.2 This report provides information to support a planning application for the proposed demolition of the existing property and development of a single residential house, within the existing boundary of and to the north-west of the existing property.

2.2 Site Description

- 2.2.1 The survey site included the habitats within the development zone as well as the immediate surrounding landscape. The wider site boundary itself encompasses an area of approximately 0.56ha and centred on approximate grid reference TQ 02438 94286. The proposed works area encompasses an area of approx. 84m². Existing habitats within the designated site boundary primarily consist of non-native garden plants, mature mixed trees, introduced shrub and mixed species poor hedgerow. In the surrounding landscape there are several residential houses, livestock grazing farmland, arable farmland a patchwork of woodland

2.3 Qualification

- 2.3.1 Recommendations included within this report are the professional opinion of an experienced ecologist based on an ecological site survey and the proposed site plan supplied by the client March 2023.

2.4 Aims

- 2.4.1 This survey report also aims to:
- Identify key ecological constraints to the project;
 - Accurately assess and record the existing habitats on site;
 - Identify habitats and/or structures that have the potential to support protected/priority/notable/invasive species and make recommendations for further surveys where appropriate;
 - Identify any statutory/non-statutory designated sites within the zone of influence of the proposed development;
 - Summarise the overall ecological value of the site in the context of legislation, planning policy and other relevant indicators of importance;
 - Where possible at this stage, set out the mitigation measures required to ensure compliance with nature conservation legislation and address any potentially significant ecological effects;
 - Where possible at this stage, identify appropriate enhancement measures.
- 2.4.2 See Appendix 5 for a summary of the national planning policies and wildlife legislation relevant to the proposed development.

3.0 Method

3.1 Desk Study

- 3.1.1 A biological data records search was acquired jointly from Buckinghamshire and Milton Keynes Environmental Record Centre (BMERC) and Herts Environmental Records Centre (HERC) with a 2km search radius for protected species and Local Wildlife Sites (LoWS).
- 3.1.2 The Multi Agency Geographic Information for the Countryside (MAGIC) website was consulted to obtain information about any statutory designated sites of national importance such as Sites of Special Scientific Interest (SSSI) and statutory designated sites of local importance such as Local Nature Reserves (LNR) within a 2km radius of the site. A search for sites of International and/or European importance such as Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Ramsar sites was carried out to a radius of 5km.
- 3.1.3 An online ordinance survey tool – was utilised to identify water bodies located within 250m of the site, in addition to google and OS maps to provide further supporting evidence.

3.2 Site Visit

- 3.2.1 A daytime site visit was carried out on 27th March 2023. The survey was conducted following the standard methodology for Extended Phase 1 Habitat Survey (JNCC, 2010). Vegetation communities were assessed through the identification of individual plant species, which were then grouped, classified and mapped based on the standardised habitat descriptions. Any evidence of invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) such as Japanese knotweed *Reynoutria japonica* was also noted.

3.3 Assessment

- 3.3.1 The ecological value of the site and potential ecological impacts of the proposed development have been assessed in accordance with industry standard guidelines (CIEEM 2017; CIEEM 2018).
- 3.3.2 Based on criteria detailed within best practice guidelines for individual species, habitat suitability ratings have been used as a guide to inform any need for further surveys in respect of these species.

3.4 Zone of Influence

- 3.4.1 The potential impacts of a development are not always limited to the boundaries of the site concerned. In order for the proposed works to have an impact upon land that is outside of the site boundaries, there needs to be a source of impact, a pathway and a receptor for that impact. For example: potential sources of impacts that may affect areas beyond a site boundary include: runoff of contaminants and chemical spillage; dust and vibrations produced during construction; increased levels of lighting; and, general acoustic disturbance.

3.4.2 The nature and scale of the proposed residential development means that the site is unlikely to have a significant impact beyond the red line boundary of the proposal. During the development it is predicted that noise, dust and lighting is unlikely to be of sufficient magnitude to impact on environmental features beyond the redline boundary. The development of a single residential house will not cause any significant increase in footfall to local habitats within the immediate locality. The proposal is unlikely to significantly increase artificial lighting, provided the proposal adheres to lighting recommendations within this report.

3.4.3 No further potential pollution pathways were identified on-site, no additional action is recommended to safeguard any protected habitats and species or habitats and species of conservation value. As such, these factors will not be assessed further within this report.

3.5 Constraints and Limitations

3.5.1 There were no apparent constraints or limitations to this survey or assessment.

4.0 Results

4.1 Designated Sites

- 4.1.1 The MAGIC website did not show any sites of International and/or European importance such as SPA's, SAC's and Ramsar sites within 5km of the site.
- 4.1.2 No statutory designated sites of national importance such as SSSI's were identified within 2km of the site.
- 4.1.3 One statutory designated site of Local importance was identified within 2km of the site. Chorleywood Common is designated as a LNR.
- 4.1.4 Fifteen non-statutory designated Local Wildlife Sites (LWS) were identified within a 2km search radius of the site.

Table 1: Statutory designated sites of local importance within 2km of the application site.

Site Name	Designation	Distance and direction	Description
Chorleywood Common	LNR	1.4km NE	Combining acid heathland, neutral grassland and chalk meadow all on one site, together with a series of ponds supporting rare plants and amphibians and secondary woodland. Some 70 plant species, 50 birds and almost 300 fungi have been recorded on the Common in addition to squirrels (<i>Sciurus carolinensis</i>), rabbits (<i>Oryctolagus cuniculus</i>), foxes (<i>Vulpes vulpes</i>), hedgehogs (<i>Erinaceus europaeus</i>), voles (<i>Microtus agrestis</i>), woodmice (<i>Apodemus sylvaticus</i>) and muntjac deer (<i>Muntiacus reevesi</i>).

Table 2: Non-statutory designated sites within 2km of the site.

Site Name	Designation	Distance and direction	Description
Chorleywood Common	LoWS	1.5km NE	Common land, situated on glacial sands and gravels overlying chalk, supporting a wide variety of habitats. The high ground supports acid/heathland communities with Heather (<i>Calluna vulgaris</i>), Sheep's Sorrel (<i>Rumex acetosella</i>), Heath

			Bedstraw (<i>Galium saxatile</i>) and Heath-grass (<i>Danthonia decumbens</i>), which merge into neutral grasslands on the slopes. Areas of herb-rich chalk grassland also occur and support species such as Quaking Grass (<i>Briza media</i>), Pyramidal Orchid (<i>Anacamptis pyramidalis</i>), Common Eyebright (<i>Euphrasia nemorosa</i>), Fairy Flax (<i>Linum catharticum</i>) and Large Thyme (<i>Thymus pulegioides</i>).
Solomon's Wood	LoWS	2km NE	Ancient semi-natural broadleaved open woodland composed of Beech (<i>Fagus sylvatica</i>) including several large Beech specimens, Hornbeam (<i>Carpinus betulus</i>), Ash (<i>Fraxinus excelsior</i>) and Sycamore (<i>Acer pseudoplatanus</i>).
Pheasant's Wood	LoWS	1.6km NE	Large woodland site bisected by the M25. Southern part is of ancient origin and the northern part is largely secondary. To the east, the canopy is mainly standards of Beech (<i>Fagus sylvatica</i>), Sycamore (<i>Acer pseudoplatanus</i>) and Ash (<i>Fraxinus excelsior</i>) with a ground flora of Bramble (<i>Rubus fruticosus</i> agg.) and Bluebell (<i>Hyacinthoides non-scripta</i>), Wood Melick (<i>Melica uniflora</i>).
Home Wood & Round Spring (Chorleywood)	LoWS	1.8km NE	Old secondary, semi-natural broadleaved woodland with remnant ancient woodland bisected by the M25 motorway. The woodland is mainly of Beech (<i>Fagus sylvatica</i>), particularly to the east, but other species such as Sycamore (<i>Acer pseudoplatanus</i>), Ash (<i>Fraxinus excelsior</i>), Silver Birch (<i>Betula pendula</i>) are more prominent in the west.
Shepherd's Lane Wood	LoWS	690m NE	Old secondary and ancient semi-natural broadleaved woodland composed predominantly of Pedunculate Oak (<i>Quercus robur</i>), Hornbeam (<i>Carpinus betulus</i>) and Ash (<i>Fraxinus excelsior</i>) with some other species such as Wild Cherry (<i>Prunus avium</i>), Aspen (<i>Populus tremula</i>) and Field Maple (<i>Acer campestre</i>).
Wearing's Field	LoWS	950m N	Neutral grassland situated on a moderate south-facing slope with an

			area of old semi-natural broadleaved, possibly ancient, woodland in the centre. The grassland grades from largely unimproved in the east to a more uniform semi-improved sward in the west.
Grove Wood, Chorleywood	LoWS	1.7km NW	This is a small fragment of semi-natural Beech (<i>Fagus sylvatica</i>) woodland, W14, encircled by a residential street. In the centre tall Beech (<i>Fagus sylvatica</i>) trees with Pedunculate Oak (<i>Quercus robur</i>) and Sweet Chestnut (<i>Castanea sativa</i>) form a closed canopy with virtually no shrub or field layer.
Ladywalk Wood	LoWS	670m SE	Ancient semi-natural broadleaved woodland dominated by Beech (<i>Fagus sylvatica</i>) with frequent Ash (<i>Fraxinus excelsior</i>) and an understorey of Hazel (<i>Corylus avellana</i>) coppice and Holly (<i>Ilex aquifolium</i>). There is some Pedunculate Oak (<i>Quercus robur</i>) in the north.
Chalk Pit S.E. of Ladywalk Wood	LoWS	870m SE	Chalk pit on a north-west facing slope that supports moderately species-rich calcareous grassland and scattered scrub.
Bottom Wood	LoWS	160m SW	Ancient semi-natural broadleaved woodland predominantly planted with Beech (<i>Fagus sylvatica</i>), plus occasional other broadleaved species and conifers, with some secondary growth of Ash (<i>Fraxinus excelsior</i>). More mature Beech standards occur mainly to the wood margin.
Uxbridge Road Verge	LoWS	1.6km SE	Road verge with a rough grass bank which is the only County site for the plant Lesser Calamint (<i>Clinopodium calamintha</i>), a UK Vulnerable species.
Pollardshill Wood	LoWS	1.0km SW	Thin strip of broadleaved woodland, on an ancient semi-natural woodland site, mainly comprising young Beech (<i>Fagus sylvatica</i>) with some Ash (<i>Fraxinus excelsior</i>).

Maple Lodge Nature Reserve	LoWS	2.0km SE	A mosaic of habitats, situated in the Colne Valley, formed on disused gravel workings. Habitats include reed beds, lakes, marshy grassland, scrub, secondary woodland and broadleaved plantation.
Chiltern Open Air Museum, Newlands Park	LoWS	1.2km W	A pocket of species rich chalk grassland south west of Chorleywood, surrounded by scrub, pasture and near ancient woodland. Chalk grassland habitat such as this is of international importance, with this small patch supporting several plant species particularly rare to Bucks.
Phillipshill Wood	LoWS	1.5km NW	The site is ancient semi-natural woodland with planted conifers and supports an uneven aged tree structure. Several compartments exist within the wood, which are all managed differently.

4.2 Habitats and Flora

4.2.1 Photographs of the site can be found in Appendix 1. A plan showing the habitats found on-site can be seen in Appendix 2. Refer to Appendix 4 for a list of scientific names for common trees, shrubs and wildflowers mentioned in section 4.2.

Buildings

4.2.2 There was one residential dwelling present on-site, a two storey building brick construction. The second story of the house was largely made up of a converted loft space. This building also has some retained loft space in the top of the roof space as well at two long thin strips of loft space at either side of the roof space. The structural integrity of the exterior fabrications were in good condition from an ecological perspective. The roof of the main dwelling was composed of generally well fitted concrete tiles which were in places broken but generally well fitted. The wooden fascia and soffits were, from an ecological perspective, generally in good structural condition from the exterior but evidence of decay was present.

4.2.3 There were also a number of outbuildings within the grounds of the site, including one garage, three garden sheds and one greenhouse. Two of the garden sheds had pitched felt roofing, with wood constructed walls. The third shed was of wood construction, with a largely defunct, open roof space. These garden sheds are generally considered to have negligible suitability to support roosting bats. The garage building adjacent to the main dwelling was made up of a concrete panel wall, with a single layer corrugated roof. The garage building is generally considered to have negligible suitability to support roosting bats.

Trees

4.2.4 There were a number of fruit trees present in the proposed works area, including apple *Malus sp.*. These fruit trees will likely be removed under the proposed scope of works (TN4).

4.2.5 The wider site contained a number of mixed scattered trees, as well as a small patch of woodland to the west of the main dwelling measuring approx. 145m² in size. Species included beech *Fagus sylvatica*, ash *Fraxinus excelsior*, silver birch *Betula pendula*, oak *Quercus robur*, holly *Ilex aquifolium*, cypress *Cupressus x leylandii*, monkey puzzle *Araucaria araucana*, sitka spruce *Picea sitchensis* and cedar *Cedrus sp.*. It is understood that all scattered trees and woodland outside of the proposed works area are not to be affected under the proposed scope of works.

Hedgerows

4.2.6 A mixed species poor hedgerow was present along the boundary of much of the wider site. It is understood that these hedgerows within the wider site boundary are not to be affected under the proposed scope of works. A length of hedgerow within the proposed works area adjacent north-west of the main dwelling measuring approx.. 37m in length would likely be removed under the proposed scope of works (TN3). Any hedgerow removal within the scope of works will all take place the boundary of a private garden. The hedgerows on-site comprised species such as cherry laurel *Prunus laurocerasus*, hawthorn *Crataegus monogyna*, blackthorn *Prunus spinosa*, yew *Taxus baccata* and privet *Ligustrum ovalifolium*. Ground flora species included cow parsley *Anthriscus sylvestris*, garlic mustard *Alliaria petiolata*, cuckoo pint *Arum maculatum*, cat's-ear *Hypochaeris sp.*, lesser celandine *Ficaria verna*, broad-leaved dock *Rumex obtusifolius* and red dead-nettle *Lamium purpureum*.

Amenity Grassland

4.2.7 A large portion of the garden area and wider site comprised tightly mown amenity grassland.

Introduced Shrubs and Garden Plants

4.2.8 The formal border planting bed within the garden area, directly adjacent to the main dwelling comprised mostly non-native garden plants and introduced shrubs.

Waterbodies

4.2.9 No waterbodies were identified within a 250m radius of the site.

Invasive Plant Species

4.2.10 No invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were found on site.

4.3 Protected Species

Flora

4.3.1 The desk study identified a number of records of bluebell *hyacinthoides non-scripta* listed on Schedule 8 the Wildlife & Countryside Act 1981 within 2km of the site.

4.3.2 Some bluebell were identified on-site within the woodland habitat to the west of the proposed works area. It is understood that these habitats will not be affected under the proposed scope of works and thus will not be affected.

4.3.3 No protected plant species were identified within the proposed works area during the on-site survey.

Invertebrates

4.3.4 The site had vegetative habitats suitable for a variety of common invertebrates species such as butterfly, bee, beetle and hoverfly.

4.3.5 No protected species were identified during the survey visit.

Amphibians

4.3.6 The desk study identified 34 records of great crested newts *Triturus cristatus* within 2km of the site.

4.3.7 No waterbodies were identified within a 250m radius of the site.

Reptiles

4.3.8 The desk study identified slow worm *Anguis fragilis*, common lizard *Zootoca vivipara*, grass snake *Natrix helvetica* and adder *Vipera berus* within 2km of the site.

4.3.9 The proposed works area is considered to provide largely unsuitable habitat for reptiles in the form of tightly mown amenity grassland and ornamental planting.

4.3.10 However, there is a small compost heap (TN3) within the woodland habitat to the west of the site with potential for foraging, hibernating and egg laying reptiles. However, this area is unlikely to be impacted upon during potential development. The surrounding hedgerow habitats have some potential to support reptiles.

4.3.11 It is considered that the lack of basking opportunities within the amenity grassland and ornamental plantings make it extremely unlikely that common reptiles will be utilising

the habitats within the proposed works area. It is therefore considered that potential impacts will be negligible and thus no further surveys are recommended for reptiles.

Birds

- 4.3.12 A variety of trees, shrubs and hedgerows on-site were suitable for nesting birds. The majority of these habitats are outside the immediate construction zone and will be retained.
- 4.3.13 Hedgerows and fruit trees within the proposed works zone have suitability to support common and widespread nesting bird species.

Bats

- 4.3.14 The desk study identified seven species of bat within 2km of the site, which included common pipistrelle *Pipistrellus pipistrellus*, soprano *Pipistrelle Pipistrellus pygmaeus*, serotine *Eptesicus serotinus*, brown Long-eared bat *Plecotus auratus* Leisler's *Nyctalus leisleri*, Natterer's *Myotis nattereri* and Daubenton's *Myotis daubentonii*.
- 4.3.15 The residential property on-site comprised a two-storey building brick construction, with concrete tiled V-shaped roofing and was inspected on its exterior for potential roosting bat features. The second story of the house was largely made up of a converted loft space. This building also has some retained loft space in the top of the roof space as well as two long thin strips of loft space at either side of the roof space. No suitable features for roosting bats were identified on the exterior of the residential building. There were no suitable entry points for roosting bats to gain access to the residential building. The structural integrity of the exterior fabrications were in good condition from an ecological perspective. The roof of the main dwelling was composed of generally well fitted concrete tiles which were in places broken but generally well fitted. The wooden fascia and soffits were, from an ecological perspective, generally in good structural condition from the exterior but evidence of decay was present. The area of internal loft spaces inspected was in a good state of repair. The loft areas showed no evidence of bat droppings, insect wings, staining or scratching. The building was deemed to have negligible potential to support roosting bats due to lack of evidence of bats and lack of suitable roost features.
- 4.3.16 The three external garden sheds had bitumen lined roofs and were in a good state of repair. The third shed had a defunct roof space. The garage building had a single layer corrugated roof. The three sheds and garage building on-site are considered unsuitable to support roosting bats.
- 4.3.17 Two trees surveyed on-site contained features considered suitable for roosting bats (TN1 & TN2) and were assessed to have moderate potential to support roosting bats. Both trees were located within the woodland area to the west of the proposed works area. It is understood that these trees are not to be affected under the proposed scope of works.
- 4.3.18 The low growing fruit trees within the proposed works area did not have any features such as broken limbs, hollows or loose bark that could have supported roosting bats.

4.3.19 The hedgerows, scattered trees and woodland on-site and adjacent habitats to the site such as hedgerows, open pasture and scattered woodland have potential to support foraging and commuting bats.

Badger

4.3.20 The desk study identified a number of badger *Meles meles* records within 2km of the site.

4.3.21 No evidence of setts, paths, snuffle holes, latrines, footprints or hair was observed during the site visit.

4.3.22 The surrounding hedgerows, open pasture and scattered woodlands had potential to support foraging badgers and badger setts.

Otter and Water Vole

4.3.23 The desk study identified a number of records of otter *Lutra lutra* and water vole *Arvicola amphibius* within 2 km of the site.

4.3.24 There were no aquatic habitats onsite or adjacent to the site suitable for otter or water vole.

Hazel Dormice

4.3.25 The desk study did not identify any records of hazel dormouse *Muscardinus avellanarius* within 2km of the site.

4.3.26 The on-site hedgerow habitats have some suitability to support hazel dormice. It is understood that some of these hedgerows within the proposed works zone will be removed under the current scope of works.

4.3.27 It is understood that hedgerow boundaries are being retained on-site.

Other Species

4.3.28 The desk study did identify records of hedgehog *Erinaceus europaeus* within 2km of the site. The grassland and hedgerow habitats on-site has potential to support foraging hedgehog, which is listed as a Species of Principle Importance in England under the Natural Environment and Rural Communities (NERC) Act 2006 Section 41.

5.0 Conclusions and Recommendations

5.1 Designated Sites

- 5.1.1 No statutory designated sites of international importance were identified within 5km of the proposed works area. One statutory designated site of national importance was identified within 2km of the proposed works area. No statutory designated sites of local importance were identified within 2km of the proposed works area. Fifteen non-statutory designated Local Wildlife Sites (LoWS) were identified within a 2km search radius of the site.
- 5.1.2 The proposed development is a small scale residential development comprising a single dwelling. Therefore construction activities will be small scale with the majority of potential impacts such as noise, dust and light pollution restricted to habitats within the site boundary or highly localised, which can be mitigated for where required. The scale of the proposed development (in isolation) is unlikely to cause an increase in the footfall of visitors to these international and nationally designated sites.
- 5.1.3 No statutory designated sites or LoWS make up part of the site.
- 5.1.4 Light pollution is considered unlikely to increase post development due to the current residential dwelling already situated on site.

5.2 Habitats and Flora

Flora

- 5.2.1 The desk study identified a number of records of bluebell *hyacinthoides non-scripta* listed on Schedule 8 the Wildlife & Countryside Act 1981 within 2km of the site.
- 5.2.2 No protected flora species listed on Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) or any plants of conservation significance were identified within the proposed works area during the on-site survey.
- 5.2.3 No further survey work is recommended in respect of habitats or plants.
- 5.2.4 The soft landscaping planting scheme could comprise native or 'wildlife beneficial' planting, for example species with fruits, seeds or nectar rich flowers. The soft landscaping could include species that are attractive to a range of invertebrates and include species that produce flowers, fruits and seed at varied times throughout the year.
- 5.2.5 The soft landscaping could comprise a tiered landscaping approach using native small shrubs and flowers to provide ground cover. Larger shrubs could be incorporated to provide understorey refuge habitats and larger trees used to create areas of canopy cover. It is recommended that native hedgerows are planted or infill planting is undertaken to create boundary features where necessary, preferably connecting into existing hedgerows in the landscape to provide landscape scale connectivity. Hedgerows should be allowed to grow to 2-3meters tall and wide, with cutting undertaken in a rotational cycle to have minimal impact on wildlife.

See appendix 4 for a list of native wildlife beneficial plants.

Invasive Plant Species

- 5.2.6 No invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were identified on site.
- 5.2.7 No further surveys are required for invasive plant species.

5.3 Protected Species

Invertebrates

- 5.3.1 The habitats onsite indicate that the site is unlikely to support any invertebrate species listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). The site has potential to support common invertebrates, particularly pollinators due to the mixed flowering garden plants, trees and hedgerow.
- 5.3.2 No further surveys are recommended for invertebrates.
- 5.3.3 A varied soft landscaping planting scheme using native species as recommended in Appendix 4 will provide habitats for a range of invertebrates.

Amphibians

- 5.3.4 Great crested newts (GCN), and their breeding and resting places are fully protected by the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010 (as amended).
- 5.3.5 No potential aquatic or terrestrial GCN habitat will be lost or impacted upon as a result of the development, therefore no further great crested newt surveys will be required.

Reptiles

- 5.3.6 Common and widespread UK reptile species - common lizard, slow worm, grass snake and adder are protected from killing and injury under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).
- 5.3.7 The habitats within the proposed works area were of low potential for reptiles due to absence of significant amounts of suitable habitat.
- 5.3.8 No further surveys are recommended for reptiles.

Birds

- 5.3.9 All nesting birds and their nests are protected under the Wildlife and Countryside Act 1981 (as amended). Bird species listed on Schedule 1 of the Act are further protected from disturbance when they are breeding.
- 5.3.10 It is recommended that all hedgerow or tree vegetation clearance within the proposed works zone take place outside of the nesting bird season. If this is not possible, it is recommended that a pre-works nesting bird check is undertaken by suitably qualified

ECoW within 48 hours of works commencing. Any active nests identified must be appropriately buffered and left undisturbed until the young have fledged. The nesting bird season runs from March to September inclusive.

- 5.3.11 It is understood that all hedgerow or trees outside of the proposed works zone are to be retained under the current scope of works.
- 5.3.12 The proposed works area is not considered suitable for ground nesting birds, due to tightly mown amenity grassland and regular footfall.
- 5.3.13 See appendix 4 for recommended bird boxes for ecological enhancement of the development proposal.

Bats

- 5.3.14 All species of British bats and their resting places (roosts) are fully protected under The Conservation of Habitats and Species Regulations 2010 (as amended) and the Wildlife and Countryside Act 1981 (as amended).
- 5.3.15 The residential dwelling and mature trees within the proposed works area did not have any features deemed suitable for roosting bats and no evidence of roosting bats was identified during the internal inspection of the building. In the event that bat are discovered during construction, works should stop immediately, and advice should be sought from a suitably qualified ecologist.
- 5.3.16 Two trees outside of the proposed works zone were assessed as having moderate bat roost potential (TN1 & TN2). These trees will not be affected under the proposed scope of works.
- 5.3.17 The three sheds and garage building within the wider site were not considered suitable to support roosting bats.
- 5.3.18 No further surveys are recommended for bats.
- 5.3.19 To avoid increasing predation risk and loss of suitable foraging and commuting habitats for bats, both on and immediately adjacent to the site, the following lighting requirements should be adhered to
- The site should be kept dark during peak bat activity periods (0 to 1.5 hours after sunset and 1.5 hours before sunrise) where this does not conflict with health and safety and security requirements;
 - Lighting that is required for security or safety reasons should use a lamp of no greater than 2000 lumens (150 Watts) and should comprise sensor activated lamps;
 - Low pressure sodium lights are a preferred option to high pressure sodium or mercury lamps;
 - Lighting should be directed to where it is needed with minimal light spillage. This can be achieved by limiting the height of the lighting columns and by using as steep a downward angle as possible and/or a shield or hood that directs the light below the horizontal plane;
 - It is recommended that artificial lighting does not directly illuminate any features or habitats of value to foraging bats such as hedgerows or tree lines.

See appendix 4 for recommended bat boxes for ecological enhancement of the development proposal.

Badger

- 5.3.20 Badgers and their setts are protected Under the Protection of Badgers Act 1992. Damage, destruction or disturbance of an active badger sett are considered to be forms of illegal 'sett interference' under the terms of the Act.
- 5.3.21 No evidence of badgers: setts, latrines, snuffle holes or hair was identified during the survey. Adjacent habitats to the site have potential to support foraging badger and habitats in the wider local vicinity could support badger setts.
- 5.3.22 No further surveys are required for badgers.
- 5.3.23 As a precaution it is recommended that any deep open excavations are covered at night to prevent large mammals such as badgers from becoming trapped. If this is not possible a plank can be placed in the excavation to provide an escape route for animals.

Otters and Water voles

- 5.3.24 Otter are fully protected by the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010 (as amended). Water vole are fully protected by the Wildlife and Countryside Act 1981 (as amended).
- 5.3.25 There were no aquatic habitats on site suitable for otters or water voles. The adjacent habitats were also unsuitable for otter and water vole.
- 5.3.26 No further surveys are required for otter or water vole.

Hazel Dormouse

- 5.3.27 Dormice are fully protected by the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010 (as amended).
- 5.3.28 The hedgerow on-site habitats have some suitability to support dormice. The desk study research did not identify any records of hazel dormice within 2km of the site.
- 5.3.29 Due to the relatively small scale of proposed hedgerow vegetation clearance, the proposed works are unlikely to have a negative impact on potential dormouse habitat. As a precaution, it is recommended that a dormouse nest and opened nut search is undertaken by suitably qualified ECoW within 48 hours of any hedgerow vegetation works commencing. If any dormouse field signs are discovered, all works should stop immediately and a suitably qualified and licenced ecologist contacted for further advice.

Other Legally Protected Species

- 5.3.30 As a precaution it is recommended that any deep open excavations are covered at night to prevent mammals such as hedgehogs from becoming trapped. If this is not possible a plank can be placed in the excavation to provide an escape route for animals.

- 5.3.31 The proposed development is not anticipated to impact on any other legally protected species therefore no further surveys are recommended.
- 5.3.32 All wild mammals receive some protection by the Wild Mammals (Protection) Act 1996 and it includes offenses of crushing and asphyxiation of any wild mammal with intent to inflict unnecessary suffering. If any animal burrows (such as rabbit *Oryctolagus cuniculus* or fox *Vulpes vulpes*, but excluding burrows used by legally protected mammals such as badgers) are found during works, careful excavation of animals from their burrows before works commence should be sufficient to avoid an offence.

6.0 References

Bat Conservation Trust (2009) Bats And Lighting In The UK Bats and the Built Environment Series Version 3.

Bat Conservation Trust (2012) Bats and Buildings: Bats and the Built Environment Series. Available from: http://www.bats.org.uk/pages/accommodating_bats_in_buildings.html

Bat Conservation Trust (2014) Artificial lighting and wildlife. Interim guidance: Recommendations to help minimise the impact of artificial lighting.

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

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.

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

Department for Communities and Local Government (DfCLG) (2021) National Planning Policy Framework, [Internet], Available from: National Planning Policy Framework (publishing.service.gov.uk)

English Nature (2002) Badgers and development. English Nature: Peterborough.

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

Harris, S., Cresswell, P. & Lance, D. (1989) Surveying Badgers: Occasional Publication No.9: The Mammal Society.

Joint Nature Conservation Committee (2016) Handbook for Phase 1 Habitat Survey - a Technique for Environmental Audit, Reprinted by JNCC, Peterborough.

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

Appendix 1:
Site Photographs



Figure 1. Eastern perspective showing residential property to be demolished under proposed scope of works.



Figure 2. South-easterly perspective showing residential property to be demolished under proposed scope of works. Note brick build construction & well fitted concrete tiles.



Figure 3. Westerly perspective showing residential property to be demolished under proposed scope of works.



Figure 4. North-westerly perspective showing residential property to be demolished under proposed scope of works.



Figure 5. North-westerly perspective showing wooden fascia in good state of repair residential property to be demolished under proposed scope of works.



Figure 6. Image showing internal loft space in good state of repair in highest peak of roof.



Figure 7. Image showing internal loft space in good state of repair in highest peak of roof. Note in active wasp nest.



Figure 8. Image showing internal loft space in good state of repair in highest peak of roof. Note in active wasp nest.



Figure 9. Image showing internal loft space in good state of repair in highest peak of roof.



Figure 10. Image showing loft storage space in north-western roof space in good state of repair.



Figure 11. Image showing loft storage space in good state of repair in south-eastern roof space.



Figure 12. Western perspective showing greenhouse.



Figure 13. South-western perspective showing garden shed in good state of repair 1.



Figure 14. Southern perspective showing garden shed 2 in good state of repair.



Figure 15. Northern perspective showing garden shed 3. Note defunct roof.



Figure 16. North-eastern perspective showing standalone garage building in good state of repair.



Figure 17. North-eastern perspective showing standalone garage building internal roof space.



Figure 18. Southern perspective showing residential dwelling & proposed works area. Hedgerow to be removed under proposed works to the right-hand side of image.



Figure 19. North-easterly perspective showing proposed works area. Hedgerow to be removed under proposed works to the left-hand side of image. Fruit trees to be removed in center of image within amenity grassland.



Figure 20. Northerly perspective showing amenity grassland within proposed works area.



Figure 21. North-easterly perspective showing amenity grassland & hedgerow. Outside of proposed works area. South-west of residential dwelling.



Figure 22. North-westerly perspective showing amenity grassland, woodland edge & hedgerow. Outside of proposed works area. South-west of residential dwelling.



Figure 23. South-westerly perspective showing amenity grassland, woodland edge & hedgerow. Outside of proposed works area. South-west of residential dwelling.



Figure 24. South-westerly perspective showing woodland area. Outside of proposed works area. South-west of residential dwelling.



Figure 25. South-easterly perspective showing amenity grassland, & scattered trees. Cherry tree Lane to left hand side of image. Outside of proposed works area. North-west of residential dwelling.



Figure 26. North-westerly perspective showing amenity grassland, & scattered trees. Outside of proposed works area. North-west of residential dwelling.



Figure 27. South-westerly perspective showing hedgerow & entrance road to property. Outside of proposed works area. North-east of residential dwelling.



Figure 28. South-westerly perspective showing mature silver birch tree with moderate bat roost potential (TN1). Outside of proposed works area. South-west of residential dwelling.



Figure 29. South-westerly perspective showing mature silver birch tree PRF1 (knot hole) with moderate bat roost potential (TN1). Outside of proposed works area. South-west of residential dwelling.



Figure 30. South-westerly perspective showing mature silver birch tree PRF2 (knot hole) with moderate bat roost potential (TN1). Outside of proposed works area. South-west of residential dwelling.



Figure 31. South-westerly perspective showing mature silver birch tree PRF3 (knot hole) with moderate bat roost potential (TN1). Outside of proposed works area. South-west of residential dwelling.



Figure 32. South-westerly perspective showing standing dead tree with moderate bat roost potential (TN2). Outside of proposed works area. South-west of residential dwelling.



Figure 33. South-westerly perspective showing standing dead tree PRF's (split trunk & raised bark) with moderate bat roost potential (TN2). Outside of proposed works area. South-west of residential dwelling.

Appendix 2: Habitat Map

Appendix 2: Habitat Map

KEY

- Indicative site boundary
- Buildings J3.6
- Woodland A1.1
- Hedgerow J3.2
- Scattered trees A3.1
- Introduced shrub J1.4
- Hardstanding
- Target note

Title: Phase 1 Habitat Survey
Plan of Silver Birches

Date: 04/04/2023

Drawn By: KH





Target Note	Description
1	Approximate location of mature silver birch tree with moderate bat roost potential.
2	Approximate location of dead standing tree with moderate bat roost potential.
3	Approximate location of proposed hedgerow removal.
4	Approximate location of proposed fruit tree removal.

Appendix 3
Plan of the Proposed Works Area

Silver Birches, Heronsgate, Rickmansworth, WD3 5DN

TQ 02438 94286

Legend

-  Indicative proposed works area (please note: this is yet to be confirmed at present)
-  Indicative site boundary



Google Earth

70 m

Appendix 4
Recommended Ecological Enhancement

Native Trees, Shrubs and Wildflowers

Scientific name	Common name
<i>Acer campestre</i>	Field maple
<i>Alnus glutinosa</i>	Alder
<i>Betula pendula</i>	Silver birch
<i>Betula pubescens</i>	Downy birch
<i>Buxus sempervirens</i>	Box
<i>Calluna vulgaris</i>	Heather
<i>Castanea sativa</i>	Sweet chestnut
<i>Carpinus betulus</i>	Hornbeam
<i>Chaenomeles spp.</i>	Quince
<i>Cornus sanguinea</i>	Dogwood
<i>Corylus avellana</i>	Hazel
<i>Crataegus monogyna</i>	Hawthorn
<i>Crataegus oxyacantha</i>	Midland hawthorn
<i>Cytisus scoparius</i>	Broom
<i>Erica cinerea</i>	Bell heather
<i>Erica tetralix</i>	Cross leaved heather
<i>Euonymus europaeus</i>	Spindle
<i>Fagus sylvatica</i>	Beech
<i>Frangula alnus</i>	Alder buckthorn
<i>Ilex aquifolium</i>	Holly
<i>Juniperus communis</i>	Juniper
<i>Larix decidua</i>	European Larch
<i>Ligustrum vulgare</i>	Privet
<i>Malus domestica</i>	Apple
<i>Pinus sylvestris</i>	Scots pine
<i>Populus alba</i>	White poplar
<i>Populus nigra</i>	Black poplar
<i>Potentilla fruticosa</i>	Shrubby cinquefoil
<i>Prunus avium</i>	Wild cherry
<i>Prunus domestica</i>	Wild plum
<i>Prunus padas</i>	Bird cherry
<i>Prunus spinosa</i>	Blackthorn
<i>Pyrus communis</i>	Pear
<i>Pyrus pyrastrer</i>	Wild pear
<i>Quercus spp</i>	Oaks
<i>Rosa arvensis</i>	Field rose
<i>Rosa rubiginosa</i>	Sweet briar
<i>Rosa spinosissima</i>	Burnet rose
<i>Rhamnus catharticus</i>	Buckthorn
<i>Rubus idaeus</i>	Raspberry
<i>Salix caprea, S.cinerea, S.fragilis, S.pentandra</i>	Willows
<i>Sambucus nigra</i>	Elder
<i>Sorbus aucuparia</i>	Rowan
<i>Sorbus aria</i>	Whitebeam
<i>Sorbus torminalis</i>	Wild Service Tree
<i>Taxus baccata</i>	Yew
<i>Tilia europaea</i>	Lime
<i>Ulex europaeus</i>	Gorse
<i>Ulmus procera</i>	English Elm
<i>Ulmus hollandica</i>	Dutch Elm
<i>Ulmus glabra</i>	Wych Elm
<i>Viburnum opulus</i>	Guelder Rose

Scientific Name	Common name
<i>Hedera helix</i>	Ivy
<i>Lonicera periclymenum</i>	Honeysuckle

Native Wildflowers	
Wet & Damp Areas	
<i>Fritillaria meleagris</i>	Fritillary
<i>Caltha palustris</i>	Marsh marigold
<i>Cardamine pratensis</i>	Lady's smock
<i>Lychnis flos-cuculi</i>	Ragged robin
<i>Lotus pedunculatus</i>	Greater birdsfoot trefoil
<i>Succisa pratensis</i>	Devilsbit scabious
<i>Hypericum perforatum</i>	Perforate St John's Wort
Heavy Clay Soils	
<i>Leontodon hispidus</i>	Rough hawkbit
<i>Rumex acetosa</i>	Common sorrel
<i>Geranium pratense</i>	Meadow cranesbill
<i>Centaurea nigra</i>	Common knapweed
<i>Centaurea scabiosa</i>	Greater knapweed
<i>Ononis spinosa</i>	Spiny restharrow
Moist Soils	
<i>Lotus corniculatus</i>	Common birdsfoot trefoil
<i>Ajuga reptans</i>	Bugle
<i>Sanguisorba minor</i>	Salad burnet
<i>Ranunculus acris</i>	Meadow buttercup
<i>Silene latifolia</i>	White campion
<i>Trifolium pratense</i>	Red clover
<i>Primula veris</i>	Cowslip
<i>Leucanthemum vulgare</i>	Oxeye daisy
<i>Medicago lupulina</i>	Black medick
<i>Rhinanthus minor</i>	Yellow rattle
<i>Anthyllis vulneraria</i>	Kidney vetch
<i>Galium verum</i>	Lady's bedstraw
<i>Daucus carota</i>	Wild carrot
<i>Knautia arvensis</i>	Field scabious
<i>Prunella vulgaris</i>	Selfheal
<i>Vicia cracca</i>	Tufted vetch
<i>Lathyrus pratensis</i>	Meadow vetchling
<i>Achillea millefolium</i>	Yarrow
Light Sandy Soils	
<i>Myosotis arvensis</i>	Field forget-me-not
<i>Trifolium dubium</i>	Lesser trefoil
<i>Campanula rotundifolia</i>	Harebell
<i>Hypericum perforatum</i>	Perforate St Johns Wort

	= Early Flowering
	= Late Flowering

Artificial Bird and Bat Boxes

Beaumaris Woodstone Bat Box

This bat box is made entirely from Woodstone, a robust material comprising concrete and wood fibres. This means that, not only does the box have excellent insulating properties maintaining a more consistent temperature throughout the year, it also provides excellent protection from predators. The Beaumaris box has a single narrow cavity which makes it suitable for crevice roosting bats such as the common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, Brandt's bat and whiskered bat. The interior of the box has a rough surface for bats to cling to and the front of the box features a subtle but attractive imprint of a bat in flight.

Suitable for attaching to external walls and available in two sizes: the Midi and the Maxi.



2F Schwegler Bat Box (General Purpose)

The 2F bat box can be sited on a tree or building and is best positioned at a height of between 3 to 6 metres in an open sunny position. A group of 3 to 5 boxes facing in different directions will provide a variety of micro-habitats. Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.



Schwegler 1FF Bat Box





Dimensions: 430 x 27 x 14cm

Entrance hole dimensions: 12cm x 24cm

Weight: 9.5kg

Position 3 metres or higher above the ground in a place where there is a clear flight path for bats entering and leaving the box.



<p>Inbuilt Nest Box</p> <p>Standard box with 26mm hole for house sparrows and members of the tit family. 48mm entrance hole for larger species such as starling.</p> <p>Can be faced with a number of products to match building design.</p> <p>Example Suppliers: www.birdbrickhouses.co.uk www.habibat.co.uk</p> <p>Boxes to be installed at least 3m high within external wall, out of human reach and predators such as cats.</p> <p>Preferably on a north/ east facing wall.</p>	
<p>2M Schwegler Nest Box</p> <p>Entrance hole 26mm:</p> <p>Blue-, marsh-, coal- and crested tit and possibly wren. All other species are prevented from using the nest box due to this smaller entrance hole.</p>	
<p>1B Schwegler Nest Box</p> <p>32mm entrance hole will attract Great, Blue, Marsh, Coal and Crested Tit, Redstart, Nuthatch, Collared and Pied Flycatcher, Wryneck, Tree and House Sparrow and bats.</p>	
<p>Schwegler 1SP Sparrow Terrace (Inbuilt or external)</p> <p>Suitable for: Colonial nesting house sparrows and common birds such as individual blue & great tits.</p> <p>Two boxes to be installed on one side of a building, at a height of at least 3m upon external walls, out of human reach and predators such as cats. Preferably facing between north and east.</p>	

Schwegler No 10 Swallow Nest

Suitable for: Common swallow

Material: Woodcrete with water resistant glued chipboard mounting panel which can be painted

Height:110mm

Width:

250mm

Depth:140mm

Weight:0.9Kg

Positioning: Inside of buildings or larger covered areas ensuring clear flight path in and out of the structure, at a height of 2m or above



Appendix 5:
Summary of Wildlife Legislation
and
National Planning Policy

Legislation

The Conservation of Habitats and Species Regulations 2017 (as amended), the Wildlife and Countryside Act 1981 (as amended) and the Protection of Badgers Act 1992 (as amended) confer various degrees of legal protection on species including bats, reptiles, great crested newts, otters, dormice, water voles, badgers and birds. A full list of protected species and their specific legal protection is provided within the schedules of the legislation. This legal protection overrides all planning decisions.

The level of protection afforded to protected species varies dependent on the associated legislation.

In general, European Protected Species (EPS) (e.g. bats, great crested newt, dormice and otter) are afforded the highest level of protection. Any person who deliberately captures, injures or kills an EPS, deliberately disturbs an EPS or who damages or destroys a breeding site or resting place is guilty of an offence. Furthermore, any person who intentionally or recklessly disturbs an animal whilst it is occupying a structure / place used for shelter / protection and who obstructs access to any structure or place that an animal uses for shelter or protection is also guilty of an offence.

The level of protection afforded to species listed on the Wildlife and Countryside Act 1981 (as amended) varies considerably. 'Fully protected species,' such as water vole, are afforded the highest level of protection. Any person who intentionally kills, injures, or takes 'fully protected species,' or who intentionally or recklessly damages or destroys a structure or place used for shelter / protection, disturbs the animal whilst occupying a structure / place used for shelter and protection or obstructs access to any structure / place used for shelter or protection is likely to have committed an offence. Other species, such as common reptiles, are afforded less protection and for these species it may only be an offence to intentionally or recklessly kill or injure animals. All active bird nests, eggs and young are protected from destruction and Schedule 1 listed birds are also protected from disturbance whilst breeding.

Under certain circumstances licenses can be granted by the Statutory Nature Conservation Organisation (Natural England in England) to permit actions that would otherwise be unlawful under The Wildlife and Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2017 (as amended) and the Protection of Badgers Act 1992 (as amended).

In addition to the above legislation, the Wild Mammals (Protection) Act (1996) provides protection for all wild mammals from certain cruel acts including crushing and asphyxiation, which can have relevance for methods employed during site clearance works.

Planning Policy

The UK Post-2010 Biodiversity Framework forms the government response to the 2010 Convention on Biological Diversity, and replaces the UK Biodiversity

Action Plan with five internationally agreed strategic goals and targets, including reducing pressures on biodiversity and safeguarding ecosystems, species and genetic diversity. The government's Biodiversity 2020 strategy aims to halt the loss of biodiversity and the degradation of ecosystem services by 2020, to include restoration where feasible. These are used as a guide for decision makers such as local authorities to fulfill their obligations under sections 40 and 41 of the Natural Environment and Rural Communities Act 2006 to have regard to the purpose of conserving biodiversity in carrying out their duties.

The National Planning Policy Framework (NPPF) states the planning system should *promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity*. The NPPF states *when determining planning applications, local planning authorities should apply the following principle: development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate*.