TIM MOYA ASSOCIATES

Preliminary Ecological Appraisal

Including:
Extended Phase 1 Habitat Assessment
Bat Scoping Assessment

31 Elsworthy Road
Primrose Hill
London
NW3 3BT

November 2021

201059-ED-01

Project	201059-ED-01 – 31 Elsworthy Road, Primrose Hill
Report Type	Ecological Report (Preliminary Ecological Appraisal)
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1 NON-TECHNICAL SUMMARY

1.1 This report assesses the ecological value of the proposed development site at 31 Elsworthy Road, Primrose Hill.

1.2 The proposed development involves a rear extension and basement to the existing house.

1.3 The site survey included an assessment of the habitats found within the site and its immediate surroundings and the likely impact of the proposed works on habitats of ecological value and protected and notable species.

1.4 This report is broadly considered valid for a duration of two years, although some ecological factors may change within shorter timescales.

1.5 The site is dominated by the house itself, hard standing, shrubbery and amenity grassland.

1.6 The house includes some features suitable for use by roosting bats, although the majority are not due to be impacted by the proposed works. Tree T13, in the adjacent garden, may also contain features suitable for roosting bats, although close inspection has not yet been possible.

1.7 Given the small footprint and very localised scale of the development, there is unlikely to be a detrimental impact on any statutory or non-statutory designated sites.

1.8 The proposed development is due to result in the loss of a small area of typical suburban garden habitats, largely hard standing.

1.9 The proposed works are not due to result in the loss of significant habitats of ecological value, although the recommendations below should be followed to minimise the risk of impact on protected and notable species.

1.10 **Recommendations:**

- Where trees are to be retained, tree protection areas and methods should be advised by a suitably qualified arboricultural consultant.
- Dismantling of the dormer window above the store room (if required) should be preceded by stripping of ivy and inspection by an appropriately licensed ecologist to confirm whether any crevices suitable for roosting bats are present.
- Prior to the commencement of any works impacting the store room, an automated bat detector should be installed inside the store room for a minimum of two weeks during the period of December to February to confirm that the store room is not used by hibernating bats.

- Evidence should be provided to demonstrate how the potential disturbance of roosting bats in tree T13 will be minimised. If potential disturbance cannot be sufficiently minimised, a climbed inspection of the tree should be undertaken by a suitably licensed ecologist to assess the potential for roosting bats (any time of year). If access cannot be gained to the tree, an emergence/re-entry survey should be undertaken on two occasions between May and August to ascertain the presence or absence of roosting bats.
- To avoid a detrimental impact on foraging and commuting bats using the site, there should be no increased light spillage on to suitable habitats, particularly amongst mature trees, where bats are most likely to forage and commute.
- Vegetation suitable for nesting birds may only be removed during the nesting season if it has been checked by an ecologist and no nests are present.
- Care should be taken when removing brash or dense vegetation to avoid harm to hedgehogs which may be present.
- Four invasive plant species were recorded within shrubbery within the site. To avoid spreading these plants if removal is required, they should be disposed of responsibly.
- Recommendations are included at the end of this report for measures to enhance the site for local biodiversity.

2 INTRODUCTION

Background

2.1 This report has been instructed by Elsworthy Road (Investments) Ltd.

2.2 The proposed development involves a rear extension and basement to the existing house.

Purpose of the report

2.3 This report assesses the ecological interest of the site and the potential impacts of the proposed development on biodiversity.

2.4 Ecological surveys are sequential in nature and any follow up, species-specific reports will supersede the information present in this report, even if both are submitted together.

2.5 TMA have been instructed to undertake a Preliminary Ecological Appraisal - a method of ecological assessment outlined in the CIEEM Guidelines for Preliminary Ecological Appraisal (2017). These guidelines state that the aims of the Preliminary Ecological Appraisal are to identify key ecological constraints associated with a project; identify any mitigation measures likely to be required; identify any additional surveys that may be required; and identify opportunities to deliver ecological enhancement.

2.6 This report aims to satisfy the requirements of the National Planning Policy Framework (MHCLG, 2021), identifying ecological features or protected species within or near the site that could potentially be impacted by the proposed development and opportunities for incorporating biodiversity enhancements into the development proposals.

2.7 This report has been produced with reference to current guidelines for preliminary ecological appraisal (CIEEM, 2017) and with Biodiversity - Code of Practice for Planning and Development (BSI, 2013).

2.8 To provide information to support the ecological assessment, a bat scoping survey has also been undertaken.

Limitations

2.9 The site was accessed during October, a time when some plant species may not be evident. However, extensive stands of invasive species such as Japanese knotweed (*Fallopia japonica*) or giant hogweed (*Heracleum mantegazzianum*) would be expected to be evident. Where further botanical or invasive species surveys are considered necessary, these have been recommended within this report.

2.10 All areas of the site were fully accessed at the time of the survey. Neighbouring gardens to either side were not accessed. Primrose Hill park, beyond the rear boundary wall, was accessed and the area adjacent to the garden was inspected.

2.11 As the attributes of the site and its potential for protected, notable and invasive species may change over time, this report is broadly considered valid for a duration of **two years**, after which time it is recommended that an update site assessment is undertaken. In some cases, protected or invasive species' use of a site may change over a shorter timescale, for instance the extent of invasive plant species, which may change month to month. In such cases, appropriate precautionary advice or recommendations for update surveys are given within this report. Although invasive plant species have been recorded if observed within the site, we cannot guarantee that all occurrences have been found.

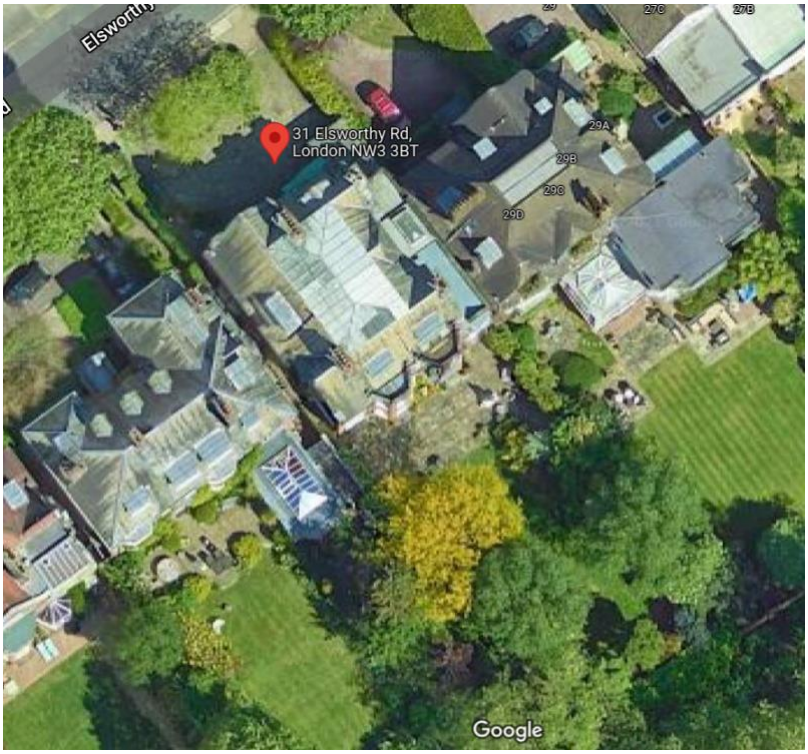
Information supplied

2.12 This report has been prepared with reference to the following supplied documents/plans, showing the extent of the site boundary and the proposed development (at this stage). Please note the below-named plans may be superseded or updated without warranting an update of this report, if the changes are insignificant to the impact of the development on biodiversity:

- Proposed Plans, BB Partnership, Jan 2021, ref GEO_202 to GEO_215.

Site location

2.13 The site is a large residential property located in a suburban part of north-west London. The property is located on a street of properties of a similar scale. The surrounding area to the north-west consists of further housing and large residential gardens. Directly to the south-east is Primrose Hill park which includes large areas of amenity grass with rows of trees and scrub vegetation.



Site aerial

2.14 The central grid reference for the site is TQ 27264 83961. The surveyed site covers approximately 0.1 hectares although the majority will not be affected by the proposed works.

3 RELEVANT LOCAL PLANNING POLICY

Local Planning Policy

Camden Local Plan 2017

3.1 **Policy A3 - Biodiversity**

3.2 The Council will protect and enhance sites of nature conservation and biodiversity. We will:

3.3 a. designate and protect nature conservation sites and safeguard protected and priority habitats and species;

3.4 b. grant permission for development unless it would directly or indirectly result in the loss or harm to a designated nature conservation site or adversely affect the status or population of priority habitats and species;

3.5 c. seek the protection of other features with nature conservation value, including gardens, wherever possible;

3.6 d. assess developments against their ability to realise benefits for biodiversity through the layout, design and materials used in the built structure and landscaping elements of a proposed development, proportionate to the scale of development proposed;

3.7 e. secure improvements to green corridors, particularly where a development scheme is adjacent to an existing corridor;

3.8 f. seek to improve opportunities to experience nature, in particular where such opportunities are lacking;

3.9 g. require the demolition and construction phase of development, including the movement of works vehicles, to be planned to avoid disturbance to habitats and species and ecologically sensitive areas, and the spread of invasive species;

3.10 h. secure management plans, where appropriate, to ensure that nature conservation objectives are met; and

3.11 i. work with The Royal Parks, The City of London Corporation, the London Wildlife Trust, friends of park groups and local nature conservation groups to protect and improve open spaces and nature conservation in Camden.

The London Plan 2021

3.12 **Policy G1 - Green Infrastructure**

3.13 A. London's network of green and open spaces, and green features in the built environment should be protected and enhanced. Green infrastructure should be planned, designed and managed in an integrated way to achieve multiple benefits.

3.14 B. Boroughs should prepare green infrastructure strategies that identify opportunities for cross-borough collaboration, ensure green infrastructure is optimised and consider green infrastructure in an integrated way as part of a network consistent with Part A.

3.15 C. Development Plans and area-based strategies should use evidence, including green infrastructure strategies, to: 1) identify key green infrastructure assets, their function and their potential function 2) identify opportunities for addressing environmental and social challenges through strategic green infrastructure interventions.

3.16 D. Development proposals should incorporate appropriate elements of green infrastructure that are integrated into London's wider green infrastructure network.

3.17 **Policy G5 Urban Greening**

3.18 A. Major development proposals should contribute to the greening of London by including urban greening as a fundamental element of site and building design, and by incorporating measures such as high-quality landscaping (including trees), green roofs, green walls and nature-based sustainable drainage.

3.19 B. Boroughs should develop an Urban Greening Factor (UGF) to identify the appropriate amount of urban greening required in new developments. The UGF should be based on the factors set out in Table 8.2, but tailored to local circumstances. In the interim, the Mayor recommends a target score of 0.4 for developments that are predominately residential, and a target score of 0.3 for predominately commercial development (excluding B2 and B8 uses).

3.20 C. Existing green cover retained on site should count towards developments meeting the interim target scores set out in (B) based on the factors set out in Table 8.2.

3.21 **Policy G6 - Biodiversity and access to nature**

3.22 A. Sites of Importance for Nature Conservation (SINCs) should be protected.

3.23 B. Boroughs, in developing Development Plans, should: 1) use up-to-date information about the natural environment and the relevant procedures to identify SINCs and ecological corridors to identify coherent ecological networks 2) identify areas of deficiency in access to nature (i.e. areas that are more than 1km walking distance from an accessible Metropolitan or Borough SINC) and seek opportunities to address them 3) support the protection and conservation of priority species and habitats that sit outside the SINC network, and promote opportunities for enhancing them using Biodiversity Action Plans 4) seek opportunities to create other habitats, or features such as artificial nest sites, that are of particular relevance and benefit in an urban context 5) ensure designated sites of European or national nature conservation importance are clearly identified and impacts assessed in accordance with legislative requirements.

3.24 C. Where harm to a SINC is unavoidable, and where the benefits of the development proposal clearly outweigh the impacts on biodiversity, the following mitigation hierarchy should be applied to minimise development impacts: 1) avoid damaging the significant ecological features of the site 2) minimise the overall spatial impact and mitigate it by improving the quality or management of the rest of the site 3) deliver off-site compensation of better biodiversity value.

3.25 D. Development proposals should manage impacts on biodiversity and aim to secure net biodiversity gain. This should be informed by the best available ecological information and addressed from the start of the development process.

3.26 E. Proposals which reduce deficiencies in access to nature should be considered positively.

4 SURVEY METHODOLOGY

Data Searches

4.1 The government's MAGIC search tool was searched for statutory sites designated for nature conservation interest within 7 km of the site, and for records of European Protected Species licences within 2 km of the site.

4.2 Greenspace Information for Greater London (GIGL) was consulted for records of non-statutory sites designated for nature conservation interest and for historic records of protected or notable species within 1 km of the site.

Site Survey

4.3 The survey was undertaken on 19th October 2021 by Simon Thomas of Tim Moya Associates, an experienced ecological consultant and Full Member of the Chartered Institute for Ecology and Environmental Management (CIEEM). During the survey the weather conditions were not considered to pose any limitations to the survey.

4.4 The vegetation and habitat types within the site were noted during the survey in accordance with the categories specified for a Phase 1 Vegetation and Habitat Survey (JNCC, 2010). Dominant plant species were recorded for each habitat present.

4.5 The site was inspected for evidence of and its potential to support protected or notable species, especially those listed under *The Conservation of Habitats and Species Regulations 2017,* the *Wildlife & Countryside Act 1981* (as amended), including those given extra protection under the *Natural Environment and Rural Communities (NERC) Act 2006* and *Countryside & Rights of Way (CRoW) Act 2000*, and listed on the UK and local Biodiversity Action Plans. Such species include amphibians, reptiles, bats, badgers, birds, dormice and water voles. Evidence of badgers was searched for throughout the site, including setts, footprints, feeding signs, hairs and droppings.

4.6 The site was searched for evidence of invasive plant species, such as Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*), giant hogweed (*Heracleum mantegazzianum*), horizontal/wall cotoneaster (*Cotoneaster horizontalis*) and floating pennywort (*Hydrocotyle ranunculoides)*.

Bat Scoping Survey

4.7 The bat scoping survey was undertaken in accordance with the Bat Conservation Trust's *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2016). The surveyor holds a Natural England licence to disturb bats whilst surveying. The buildings were inspected externally from all angles using binoculars and internally using a high-powered torch to inspect loft spaces (where present). Trees were

inspected from ground level, using binoculars where needed and a high-powered torch to inspect potential bat roost features. Where possible, a ladder was used to inspect features within 3 m of ground level. An endoscope was used to investigate cavities where possible. All aspects of each tree were viewed, and wherever visibility was restricted (e.g. due to ivy or foliage), this is stated in the report.

4.8 Evidence searched for included bat droppings, feeding remains, staining from urine or grease marks and potential access points into roosting cavities. Features indicating potential for bat roosts included gaps beneath roof tiles, weatherboarding and/or hanging tiles, missing mortar, holes in tree trunks, cracks in tree limbs, loose bark and dense ivy growth.

5 DESK STUDY RESULTS

Designated Sites

5.1 The site itself is not covered by any statutory or non-statutory nature conservation designations.

5.2 There are twenty statutory designations within 7 km of the proposed development and six non-statutory designations within 1 km of the proposed development as follows:

Table 1. Statutory designations of nature conservation interest

Closest statutory site:			
Site name	**Designation**	**Distance and direction from proposed works (km)**	**Description**
Adelaide	LNR	0.4 NE	Steep-sided railway embankment and nature reserve with good grassland areas. The reserve has a summer meadow, pond, areas of scrub and small woodland.
Other statutory designations: Two further SSSIs and seventeen further LNRs are located between 0.91 km and 7 km from the proposed development site.			
Key: LNR - Local Nature Reserve SSSI - Site of Special Scientific Interest			

Table 2. Non-statutory designations of nature conservation interest

Closest non-statutory site:			
Site name	**Designation**	**Distance and direction from proposed works (km)**	**Description**
Primrose Hill	SINC	0.01 SE	Amenity grassland, Hedge, Planted shrubbery, Scattered trees, Scrub, Semi-improved neutral grassland, Tall herbs. Mostly mown amenity grassland with scattered groups of mature trees.
Five further SINCs are located between 0.4 km and 1 km from the proposed development site.			
Key: SINC - Site of Importance for Nature Conservation			

Historic Species Records

5.3 Local Ecological Records Centre data searches return hundreds of species records. The table below summarises records of key protected species considered to be most sensitive to impact from proposed developments. Numerous additional notable species records were returned for the 1 km radius, which are considered unlikely to be impacted by the proposed development and are therefore not summarised below. For

instance, species for which no suitable habitat is present close to the site (see end of table).

Table 3. Existing protected species records

	Local Ecological Records Centre			**EPS Licences granted**
Species	**Number of records within 1km**	**Closest record to site (km) and orientation***	**Most recent record**	**No. of EPS licences granted within 2km**
Bat species *(Chiroptera*)	770	0.31 E	2018	4 licences within 2km for impacts on bat roosts: Closest 0.5 km SE *(2012) for destruction of a resting place of common pipistrelles and soprano pipistrelles.*
Hedgehog *(Erinaceus europaeus*)	107	0.24 NW	2020	N/A
Stag Beetle *(Lucanus cervus*)	13	0.37 SW	2020	N/A
No records were returned of the following key protected/notable species: Adder *(Vipera berus*), Common Lizard *(Zootoca vivipara*), Dormouse *(Muscardinus avellanarius*), Grass Snake *(Natrix natrix*), Great Crested Newt *(Triturus cristatus*), Otter *(Lutra lutra*), Slow-worm *(Anguis fragilis*), Water Vole *(Arvicola amphibius*), White Clawed Crayfish *(Austropotamobius pallipes*)				
Records were returned of the following species amongst others but no suitable habitat is present close to the site: Badger *(Meles meles*)				

* Where the distance of records is further than the search radius, this is due to lack of accuracy in the record's coordinates. The true location of the record may be inside the search radius.

5.4 Records of bats given in the table above include records of at least 4 bat species (some were unidentified), including the following: soprano pipistrelle (*Pipistrellus pygmaeus*), unknown pipistrelle species (*Pipistrellus* sp.), brown long-eared (*Plecotus auritus*), noctule (*Nyctalus noctula*) and Daubenton's (*Myotis daubentonii*).

6 RESULTS OF HABITAT SURVEY

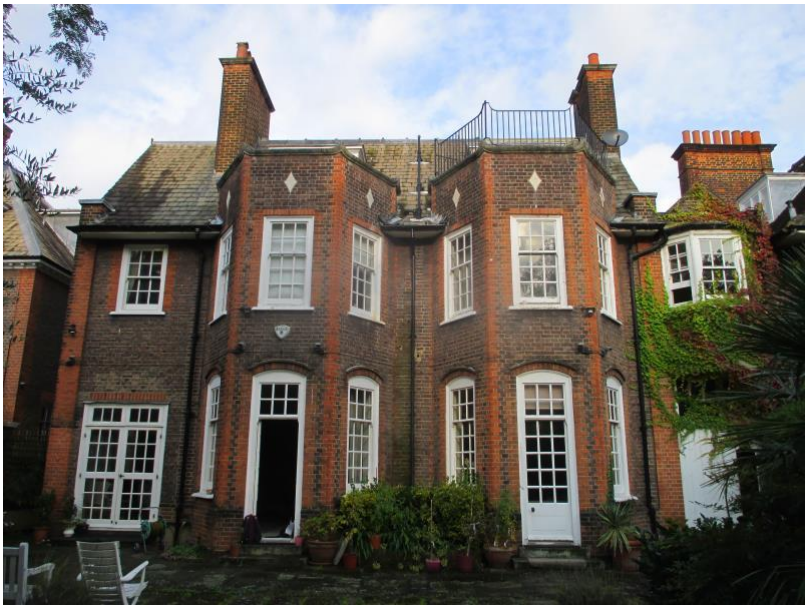
Habitats and Vegetation

6.1 A Phase 1 Habitat Plan can be found in Appendix A illustrating the habitats present. Photographs are included below.

Table 4. Habitats present within the site

Habitat type	Description	Dominant plant species	Overall biodiversity value*	Habitats of Principal Importance**	Additional Notes
Trees	A variety of trees surrounding the rear garden.	Birch *(Betula sp.)*, Hazel sp. *(Corylus sp.)*, Magnolia sp. *(Magnolia sp.)*	Moderate	No	Offer some feeding opportunities to birds and invertebrates. Some nesting opportunities for birds.
Introduced shrubs	Ornamental shrubbery surrounding rear garden.	Pyracantha *(Pyracantha sp.)*, Rose sp. *(Rosa sp.)*, Snowberry *(Symphoricarpos sp.)*	Low	No	Offer some feeding opportunities to birds and invertebrates. Some minor nesting opportunities for birds.
Buildings and hard standing	Large three-storey house with surrounding parking and patios.	None	Low	No	Potential for roosting bats is addressed within this report.
Amenity grassland	Rear lawn mown short.	Red Fescue *(Festuca rubra agg.)*	Low	No	Potential feeding resource for some bird species and hedgehog.
Hedges	Dense hedgerows on western boundary.	Cypress sp. *(Cupressus sp.)*, Cherry Laurel *(Laurocerasus officinalis)*	Low	No	Nesting opportunities for birds.
Dense/Scattered Scrub	Dense scrub beyond garden wall, forming edge of Primrose Hill parkland.	Elder *(Sambucus nigra)*	Moderate	No	Provides suitable habitat for hedgehogs, nesting birds, small mammals, and an ecological corridor around the edge of the park. No evidence of badgers visible.

*Overall biodiversity value of a habitat is guided by the criteria listed in section 4.6 of the Guidelines for Ecological Impact Assessment (CIEEM, 2018), which include habitats required by rare or uncommon animal or plant species, habitat connectivity and species-rich assemblages of plants.
** Habitats of principal importance included in Section 41 of the NERC Act.



Rear elevation of house

Rear garden

Protected/Notable Species Potential

6.2 The table below details the suitability of habitats within the site for key protected/notable species.

6.3 Species not detailed below are considered unlikely to be significantly impacted by the proposed works.

Table 5. Protected species potential

Species group	Strict Protection*	Species of Principal Importance**	General habitat requirements	Suitable habitat within site	Additional notes (e.g. evidence of species)
Great crested newt	Yes	Yes	Breed in ponds and other waterbodies. Terrestrial habitat includes woodland and grassland.	Formal shrubbery would offer very little shelter.	No ponds have been identified within 500 m of the site, except for one potential garden pond to the rear of number 39, located 70 m west of the site, for which access was requested but has not been granted.
Reptiles	Yes	Yes - all reptiles	Long grass, scattered scrub, hedgerows, rubble and log piles.	Garden vegetation offers almost no shelter. The site is not adjacent to other habitats with good suitability.	
Bats	Yes	Yes - several species	Roost in buildings, tree cavities, bridges and caves.	Certain features of the house have potential to be used by roosting bats, as detailed in the next section of this report. The nearby habitat - large residential gardens and the adjacent Primrose Hill park - offer good suitability for foraging and commuting bats within the urban environment.	
Dormouse	Yes	Yes	Hedgerows, dense scrub, deciduous woodland with connected canopy and good ground flora.	No suitable habitats	
Water vole	Yes	Yes	Rivers, streams, wet ditches.	No suitable habitats	
Otter	Yes	Yes	Rivers and lakes	No suitable habitats	

Species group	Strict Protection*	Species of Principal Importance**	General habitat requirements	Suitable habitat within site	Additional notes (e.g. evidence of species)
White-clawed crayfish	Yes	Yes	Canals, streams, rivers, lakes, reservoirs and water-filled quarries	No suitable habitats	
Badger	Yes	No	Woodland, dense scrub, meadows, field edges.	The site has no evidence of use by badgers. The adjacent park has low suitability for badgers and no evidence of badgers was visible within the neighbouring area.	
Hedgehog	No	Yes	Woodland, hedgerow, gardens, parks	Garden offers suitable habitat for hedgehogs. The garden wall prevents free movement of hedgehogs but the hedgerows permit movement to/from the south-west.	
Stag beetle	No	Yes	Woodland, hedgerow, orchard, parks	The site is sub-optimal for this species due to lack of dead wood resources.	
Other invertebrates	No	Various	Species-dependent. High invertebrate diversity is favoured in sites with a mosaic of habitats and diverse plant assemblage.	Introduced shrubs offer a variety of flowering plants as a feeding resource for invertebrates.	
Nesting birds	Whilst Nesting	Various	Trees, shrubs, scrub, hedgerows, cavities within buildings, waterbodies, arable fields, bare/stony ground.	Shrubs and trees, where vegetation is dense and undisturbed.	
Invasive Plant Species	No	No	Species-dependent: Waste land, railway verges, riverbanks, waterbodies	Various shrubs present are known to be invasive in some circumstances - snowberry (Symphoricarpos albus), montbretia (Crocosmia x crocosmiiflora), cherry laurel (Prunus laurocerasus) and bamboo (species unknown).	These species are typical amongst shrubbery but their spread off-site should be avoided.

7 RESULTS OF BAT SCOPING ASSESSMENT

Buildings

7.1 Building names and locations are shown on the Phase 1 Habitat Plan (Appendix A). Target Notes have been used to identify features such as potential bat access points. Full details of the Bat Scoping Survey findings are contained in Appendix B, including building descriptions and inspection findings.

7.2 Roof voids are not the only area of a building that may be used by roosting bats. Bats often roost underneath roof tiles, hanging tiles, wooden cladding, inside cavity walls, in store rooms and amongst brickwork. In these locations, evidence of a bat roost may be concealed.

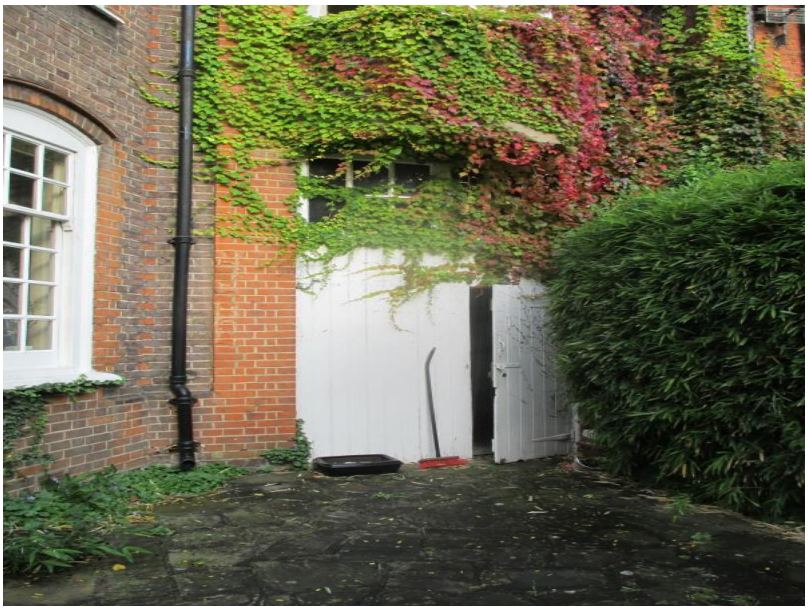
7.3 All areas where bats may roost in all buildings were accessed internally and externally.

7.4 The roof of the building included features suitable for roosting bats such as gaps beneath roof tiles, lead flashing, gaps around dormer windows. However it is understood that these features are not due to be impacted.

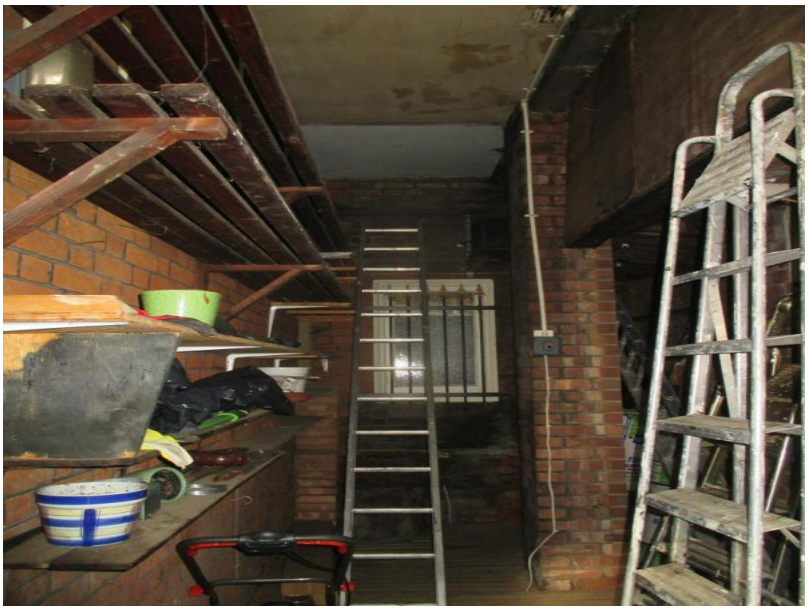
7.5 The rear wall/face of the building had no notable features suitable for roosting bats.

7.6 A ground-floor store room, accessible from the garden, was considered to have some low potential for occasional use by bats, most notably during winter hibernation.

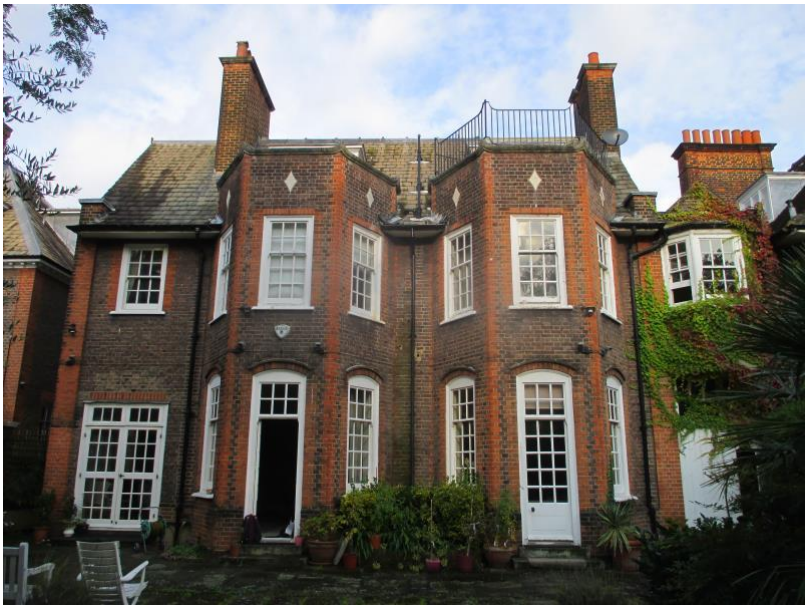
7.7 The dormer window above the store room is obscured with ivy which may obscure minor potential bat roost features.



Store room



Inside of store room



Rear elevation of house

Trees

7.8 No suitable bat roosting features were visible within any trees within the site. As such all trees within the site boundary have been assessed as having **Negligible** bat roosting potential.

7.9 One tree (T13) in the neighbouring garden, close to the boundary, may include features suitable for use by roosting bats, although access to view this tree was very limited.

Tree T13 as viewed from within hedge

Tree T13 as viewed from balcony

Foraging and commuting habitat

7.10 The location of the site and the surrounding area is considered to be of moderate value for commuting and foraging bats. The network of large suburban gardens are suitable for regular use by foraging and commuting bats, as well as the Primrose Hill park directly adjacent to the site. It is expected that a variety of bat species may be found in the local area. It is likely that foraging or commuting bats use the site itself to a certain extent.

8 CONCLUSIONS AND RECOMMENDATIONS

8.1 For any constraints identified, mitigation options should follow the Mitigation Hierarchy as set out in British Standard BS42020 (BSI, 2013). This seeks as a preference to avoid impacts then to mitigate unavoidable impacts, and, as a last resort, to compensate for unavoidable residual impacts that remain after avoidance and mitigation measures.

Overall Ecological Value

8.2 The proposed development is not due to result in the loss of significant habitats of ecological value, although the recommendations below should be followed to minimise the risk of impact on habitats of ecological value and protected and notable species.

Designated Sites

Statutory Designated Sites

8.3 The closest statutory designated site is located 400 m away.

8.4 Given the small footprint and very localised scale of the development, there is unlikely to be a detrimental impact on this or any other statutory designated sites.

Non-statutory Designated Sites

8.5 The site is located directly adjacent to Primrose Hill SINC. However the proposed extension is not expected to have any detrimental impact on the SINC site, as long as pollution impacts can be controlled, which should be achieved since the proposed development is contained within a private walled garden.

8.6 As such, given the small footprint and very localised scale of the development, there is unlikely to be a detrimental impact on this or any other non-statutory designated sites.

Habitats of Principal Importance

8.7 No habitats within or adjacent to the proposed development site are listed as Habitats of Principal Importance under Section 41 of the NERC Act (Refer to Appendix E).

Other Notable Habitats

8.8 The following habitats are not classed as Habitats of Principal Importance, but nevertheless are considered to be of notable biodiversity value in the context of the site and its surroundings:

Trees

8.9 A number of trees are present on the peripheries of the site and off-site areas. Some minor tree removal is due to take place.

8.10 Recommendation: Where trees are to be retained, tree protection areas and methods should be advised by a suitably qualified arboricultural consultant.

Protected Species

8.11 The following species are protected against harm/destruction/disturbance by European or UK Law for details see Appendix E.

Great Crested Newts

8.12 Great crested newts are legally protected from killing, injury, capture and deliberate disturbance. Habitats used by great crested newts are also protected (see Appendix E for details).

8.13 Local Ecological Records Centres returned no previous records of great crested newts within 1 km of the proposed development site. The only potential pond identified within 500 m of the site is in a nearby garden, but the presence of a pond could not be verified and access to the property was not permitted. It is considered very unlikely that great crested newts are present and the habitat present within the site is largely unsuitable.

8.14 Therefore, it is considered unlikely that the proposed development will impact great crested newt populations or individual great crested newts.

8.15 As such, no further surveys or mitigation are recommended regarding great crested newts.

Reptiles

8.16 All species of native reptiles are legally protected against killing or injury (see Appendix E for details).

8.17 The habitats within the site are considered broadly unsuitable for reptile species. Local Ecological Records Centres returned no previous records of reptile species within 1 km of the proposed development site.

8.18 Therefore, it is considered unlikely that the proposed development will impact reptile populations or individual reptiles.

8.19 As such, no further surveys or mitigation are recommended regarding reptiles.

Roosting Bats - Buildings

8.20 All species of bat are legally protected from disturbance or harm and their roosts are protected from damage or destruction (see Appendix E for details).

8.21 The house was assessed as having some potential features potentially suitable for roosting bats and records have shown that bats are present in the wider area. However it is understood that the roof of the building will not be impacted and therefore potential bat roost features in relation to the roof (roof tiles, dormer windows) are not due to be impacted.

8.22 A ground-floor store room, accessible from the garden, was considered to have some low potential for occasional use by bats, most notably during winter hibernation. Additionally, the dormer window above the store room is covered with ivy which may obscure minor potential bat roost features. If these structures are used by roosting bats, bat roost features would be destroyed and bats may be disturbed, injured or killed during dismantling works.

8.23 Recommendation: Due to the minor potential for features suitable for roosting bats to be obscured by ivy, dismantling of the dormer window above the store room (if required) should be preceded by stripping of ivy and inspection by an appropriately licensed ecologist with an endoscope to confirm whether any crevices suitable for roosting bats are present. This is considered to be proportionate to the risk of roosting bats being present. This may be undertaken well in advance if preferred, to reduce the risk of delays.

8.24 Recommendation: To confirm that the inside of the store room is not used by hibernating bats, prior to the commencement of any works impacting the store room, it is recommended that an automated bat detector is installed for a minimum of two weeks during the period of December to February. A two-week sample is considered to be proportionate to the risk of the room being used by roosting bats.

8.25 If the surveys confirm the use of any structures by roosting bats, additional surveys may be required. Any proposed development works likely to disturb bats or damage/destroy bat roosts may only be undertaken once a Natural England Mitigation Licence has been obtained. This would require a detailed bat mitigation strategy including the provision of alternative roosting features within the development site.

Roosting Bats - Trees

8.26 All trees within the site boundary have been assessed as having **Negligible** bat roosting potential.

8.27 One tree (T13) in the neighbouring garden, close to the boundary, may include features suitable for use by roosting bats, although access to view this tree was very limited.

8.28 If tree T13, which appears to have potential to be used by roosting bats, is due to be significantly disturbed (though noise, vibrations etc) during construction works, roosting bats may be disturbed if present at the time.

8.29 Recommendation: Evidence should be provided to demonstrate how the potential disturbance of roosting bats in tree T13 will be minimised to a negligible level by control of potentially disturbing activities. If potential disturbance cannot be sufficiently minimised, a climbed inspection of the tree should be undertaken by a suitably licensed ecologist to investigate the features within the tree more closely to assess their potential for roosting bats (any time of year). If access cannot be gained to the tree, an emergence/re-entry survey should be undertaken on two occasions between May and August to ascertain the presence or absence of roosting bats. The balcony of the property at 31 Elsworthy Road gives a partial view of the top of the tree.

8.30 If the surveys confirm the use of the tree by roosting bats, additional surveys may be required. Any proposed development works likely to disturb bats may only be undertaken once a Natural England Mitigation Licence has been obtained. This would require a bat mitigation strategy, likely to include timing restrictions to avoid the most sensitive seasons for bats.

Foraging and Commuting Bats

8.31 Due to the habitats present within the site and the local landscape, it is considered likely that foraging or commuting bats use the site to a certain extent.

8.32 The foraging and commuting behaviour of bats is known to be altered by artificial lighting and bats may avoid illuminated areas (ILP, 2018).

8.33 Recommendation: To avoid a detrimental impact on bats using the site, there should be no increased light spillage on to suitable habitats, particularly amongst mature trees, where bats are most likely to forage and commute. Lighting should be restricted to the building and should be kept to a low level. The following measures should be implemented within the lighting scheme:

- Minimise light spill through careful aiming, positioning and selection of luminaires.
- LED luminaires should be used where possible due to their sharp cut off, lower intensity and dimming capacity.
- Warm white luminaires with peak >550nm. UV lighting should be avoided.
- Reduce the light intensity to the minimum required for safety and security;
- Where security lamps are used these should use a trigger to illuminate them (e.g. infra-red detector), and switch off after a short period, rather than remaining on all night.
- Further guidance is available in Bats and artificial lighting in the UK (ILP, 2018).

Dormice

8.34 Dormice are legally protected from disturbance or harm and their breeding sites and resting places are protected from damage or destruction (see Appendix E for details).

8.35 No records of dormice within 1 km of the site have been returned by record centres.

8.36 The habitats within the site are of negligible suitability for dormice and there are minimal connections to suitable habitat in the surrounding landscape.

8.37 Therefore, dormice are considered unlikely to be present within the site.

8.38 As such, no further surveys or mitigation are recommended with regards to dormice.

Water Vole and Otter

8.39 Otters and water voles are legally protected from harm, capture and disturbance and their breeding sites and resting places are fully protected (see Appendix E for details).

8.40 No habitat suitable for water voles or otters is present within or adjacent to the site.

8.41 Therefore, the proposed development is considered unlikely to impact these species.

8.42 As such, no further surveys or mitigation are recommended with regards to water vole or otter.

White-clawed Crayfish

8.43 White-clawed crayfish are legally protected from harm, capture and disturbance (see Appendix E for details).

8.44 No habitat suitable for white-clawed crayfish is present within or adjacent to the site.

8.45 Therefore, the proposed development is considered unlikely to impact this species.

8.46 As such, no further surveys or mitigation are recommended with regards to white-clawed crayfish.

Badger

8.47 Badgers are legally protected against killing, injury or disturbance and their setts are protected against interference (see Appendix E for details).

8.48 The habitats within the site are considered broadly unsuitable for badgers and no evidence of badgers was recorded during the survey.

8.49 Therefore, the proposed development is considered unlikely to impact badgers or their setts.

8.50 As such, no further surveys or mitigation are recommended with regards to badgers.

Invertebrates

8.51 Approximately 400 invertebrate species are listed as Species of Principle Importance' under Section 41 of the NERC Act (see Appendix E) and decision makers must have regard to the conservation of these species.

8.52 Although common invertebrates are likely to be found within the site, the habitats within the site are common and widespread, such as introduced shrubbery and amenity grassland.

8.53 Therefore, it is considered unlikely that the proposed works will significantly impact important populations of invertebrates.

Nesting Birds

8.54 All birds are protected against killing, injury or capture, and eggs and active nests are protected. Some bird species are also protected against disturbance (see Appendix E for details).

8.55 The site includes trees and shrubbery which are suitable for nesting birds during the nesting season (typically March to August inclusive). Removal of suitable nesting habitats may result in the destruction of active bird nests, eggs or young.

8.56 Recommendation: To avoid destruction of active bird nests, it is recommended that dense vegetation removal (if required) is only undertaken outside the bird nesting season. Vegetation removal may only be undertaken during the nesting season if a careful check by a suitably competent person or an experienced ecologist can confirm that no active bird nests are present. If bird nests are present within vegetation to be removed, it must be left in place and not disturbed until all the young have fledged and cease to return to the nest.

Other Species

Hedgehog

8.57 The site includes habitats suitable for hedgehogs to be present. Whilst not a strictly protected species, the hedgehog is listed as a Species of Principal Importance (see Appendix E) and decision makers must have regard to the conservation of their populations.

8.58 Recommendation: Care should be taken when removing scrub/shrub vegetation to avoid harm to hedgehogs which may be present. Once vegetation has been removed to a height of 150-300 mm, it should be checked by a member of site staff to ensure that no hedgehogs are present. If any hedgehogs are present, they may be moved to suitable habitat nearby.

Invasive Species

Invasive plant species

8.59 Various shrub species were recorded within the site that are known to be invasive in some circumstances - snowberry, montbretia, cherry laurel and bamboo.

8.60 Montbretia is listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) as an invasive plant species. It is prohibited to plant or otherwise cause this species to grow in the wild. Cherry laurel, snowberry and bamboo are not listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) as legally-controlled invasive plant species, but are known to be invasive in some circumstances (Natural England, 2011).

8.61 Recommendation: These plants are unlikely to cause problems in their current location within the site, but their spread should be avoided. If removal of these plants is required as part of the works, they should be disposed of responsibly (e.g. mulching, burning on site or removal to landfill) so that the plants cannot spread.

9 BIODIVERSITY ENHANCEMENT OPPORTUNITIES

9.1 In accordance with the National Planning Policy Framework, recommended opportunities for biodiversity enhancement (above and beyond those required to mitigate for the identified impacts) are set out below. Any additional measures pending the results of the recommended bat and GCN surveys should be incorporated as necessary. The below recommendations may not all be feasible within the final development and alternative enhancements should also be considered. A detailed Ecological Mitigation and Enhancement scheme may be appropriate to confirm the details and locations of enhancements which are due to be included within the development.

Wildlife Boxes

House Sparrow Nest Boxes

9.2 The house sparrow (*Passer domesticus*) is an iconic species whose populations have faced steep declines in recent decades. 'Sparrow terraces' are available which can accommodate multiple nests and are designed to be incorporated into the fabric of a building as it is built. Boxes should ideally be installed between 2 and 5 m above ground, preferably avoiding areas that are exposed to strong sunlight or prevailing winds. Siting boxes close to vegetation is helpful for young birds taking their first flights.

Bat Boxes

9.3 The inclusion of bat boxes provides new roost sites for bats within the local area. A variety of bat box designs are available, for installation on existing mature trees, on external building walls, or to be in-built into the structure of new buildings. Bat boxes should be located in sheltered spots away from artificial lighting and placed at a height of at least 3 metres from the ground, ideally facing south.

Hedgehog Boxes/Corridors

9.4 To enhance the site for hedgehogs, it is recommended that hedgehog nest boxes/domes are installed in undisturbed locations within the site.

9.5 To allow hedgehogs to pass through the site, it is recommended that all garden fences and gates include a gap of at least 13 cm x 13 cm at ground level.

Additional Habitat Features

Log or Stone Piles

9.6 To enhance the site for invertebrates such as the stag beetle (*Lucanus cervus*) and amphibians, it is recommended that a log pile may be created in a shaded and undisturbed location within the site. Alternatively, piles of rocks in both sunny and shaded areas of the site can provide enhancement for a variety of species.

10 REFERENCES

10.1

- British Standards Institution (2013). BS42020 Biodiversity – Code of practice for planning and development.
- CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal*, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
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- Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey. A technique for environmental audit.
- Ministry of Housing, Communities and Local Government (2019). National Planning Policy Framework.
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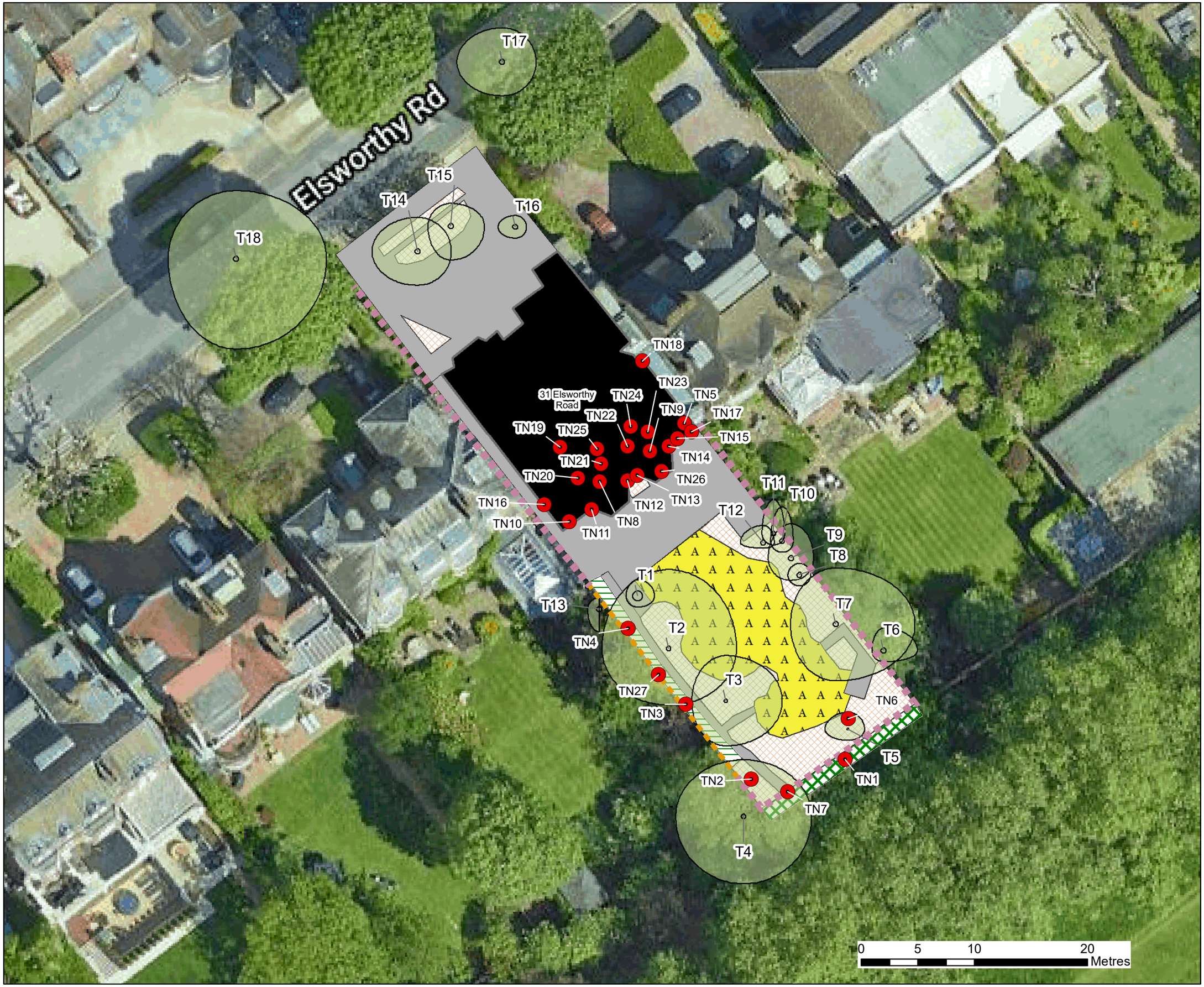
APPENDIX A

- Habitat plan
- Target Note Schedule



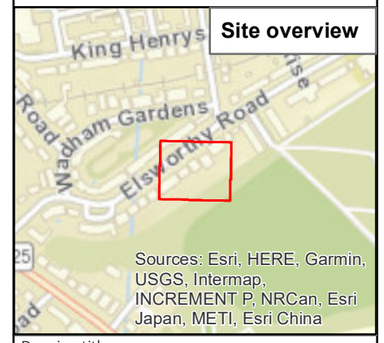
N

W E

S

Legend

- Target Note
- Tree
- Building
- Scrub - dense/continuous
- Cultivated/disturbed land - amenity grassland
- Introduced shrub
- Intact hedge - species-poor
- Hard standing
- Fence
- Wall



Drawing title:
Habitat Plan

Project Name:
31 Elsworthy Road, Primrose Hill

Date	Drawn by	Check by
16/11/2021	JCF	-

Drawing No	Rev	Scale
201059-EC-01	-	1:300

The original of this drawing was produced in colour - a monochrome copy should not be relied upon

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Target Note Schedule

TIM MOYA ASSOCIATES

Target notes

Object ID	Type	Notes and findings
1	Habitat description	Dense scrub area on edge of park - mainly elder.
2	Habitat description	Patchy shrub and ruderal low vegetation.
3	Habitat description	Cherry laurel hedge.
4	Habitat description	Cypress hedge.
5	Miscellanous target note	Side storage room. Rear door open during survey (seemingly for cats). Front door has 4 cm gap over top. Brick construction with wooden panels. Access by bats is possible but no evidence of roosting bats is present, or notably suitable roosting places.
6	Invasive plant species	Various invasive plant species present throughout shrubbery - montbretia, snowberry, bamboo, cherry laurel.
7	Miscellanous target note	Garden gate with 3 cm gap beneath.
8	Potential Bat Roost Feature (PRF)	Dormer window.
9	Potential Bat Roost Feature (PRF)	Dormer window.
10	Potential Bat Roost Feature (PRF)	Gaps under lead flashing.
11	Potential Bat Roost Feature (PRF)	Gaps under lead flashing.
12	Potential Bat Roost Feature (PRF)	Gaps under lead flashing.
13	Potential Bat Roost Feature (PRF)	Gaps under lead flashing.
14	Potential Bat Roost Feature (PRF)	Gaps under lead flashing.
15	Potential Bat Roost Feature (PRF)	Gaps under lead flashing.

Target notes

Object ID	Type	Notes and findings
16	Potential Bat Roost Feature (PRF)	Potential gaps beneath tiles on gable end of roof. View very limited from side of house. Directly above drainpipe.
17	Habitat description	Ivy covers junction between two neighbouring buildings, but it can be viewed reasonably well. No notable potential bat roost fetaures visible. Bay window structure may have minor gaps.
18	Survey limitation	Eastern gable end of building can't be viewed.
19	Miscellanous target note	Loft hatch location (approx.).
20	Potential Bat Roost Feature (PRF)	Gaps under lead flashing and structure of dormer window.
21	Potential Bat Roost Feature (PRF)	Gaps under lead flashing and structure of dormer window.
22	Potential Bat Roost Feature (PRF)	Gaps under lead flashing and structure of dormer window.
23	Potential Bat Roost Feature (PRF)	Gaps under lead flashing and structure of dormer window.
24	Potential Bat Roost Feature (PRF)	Broken roof tile and gap beneath lead flashing over roof ridge.
25	Potential Bat Roost Feature (PRF)	Slightly lifted roof tiles.
26	Miscellanous target note	Balcony accessible to give good view of roof structure and better view of tree in neighbouring garden.
27	Miscellanous target note	Hedge rather than wall on western side of garden - allows potential access for wildlife such as hedgehogs.

APPENDIX B

- Bat Building Assessment

201059 - 31 Elsworthy Road

201059ED-11

Object ID REF	Storeys	Use of Building	Roof type Condition	Materials	Cellars	Chimneys	Roof void present	Bats evidence	Bat roost potential	Hibernation pot.	Internal Inspection	Potential bat access points Potential bat roost features	Ecological notes	Recommendations	Survey date
1 31 Elsworthy Road	3	Residential	Pitched Good	Roof external: Slate tiles Roof internal: Wooden sarking Wall: Brick	N	2	Y	N	M	L	Yes	Roof materials - gaps under lead flashing. Tiles - gaps between. Tiles - lifted/broken Dormer windows. Roof materials - gaps between wooden boarding and roof tiles. Roof materials - gaps under lead flashing. Rooms - cavities within internal rooms. Tiles - gaps under roof tiles	Building in general has moderate bat roost potential but the potential roost features are largely not due to be impacted. Roof void limited to upper portion of roof. Trapezium shaped roof void with upper part sectioned off in roof apex. Hatch present but access limited to view around hatch due to cramped space approx 80 cm tall. No bat droppings visible around hatch. Externally roof (rear side) viewed closely from balcony. Slate tiles generally close fitting but quite frequent gaps large enough for access by bats. Dormer windows have notable gaps around them and lead flashing where the wall meets the roof also has notable gaps. Front (north) side of roof not closely viewed and not due to be impacted by works. Rear wall of building has very small minor holes due to small pipes etc but considered to be of negligibly low potential for roosting bats. Ground floor store	- Soft strip of building required - Dismantling of the dormer window above the store room (if required) should be preceded by stripping of ivy and inspection by an appropriately licensed ecologist with an endoscope to confirm whether any crevices are present suitable for roosting bats. Nocturnal bat emergence survey may be undertaken if preferred (May-August only) although not considered necessary given the very low risk of bat presence. - Automated bat detector survey- An automated bat detector should be installed for a minimum of two weeks during the period of December to February to confirm the absence of hibernating bats during that time.	

Bat roost and Hibernation potential

C - Confirmed H - High M - Moderate L - Low N - Negligible

Generated By MyTREES tree management software

201059 - 31 Elsworthy Road

201059ED-11

Object ID REF	Storeys	Use of Building	Roof type Condition	Materials	Cellars	Chimneys	Roof void present	Bats evidence	Bat roost potential	Hibernation pot.	Internal Inspection	Potential bat access points Potential bat roost features	Ecological notes	Recommendations	Survey date
													room present (see target note 5) at eastern corner (rear), with open door to rear garden. No evidence of bats present within this room although occasional bat access cannot be ruled out. Features present within the room were of some suitability for hibernating bats due to the conditions within the room. Dormer window above store room is obscured with ivy which may obscure minor potential bat roost features. Building soffits and windows appear well sealed with no visible gaps.		

Bat roost and Hibernation potential

C - Confirmed H - High M - Moderate L - Low N - Negligible

APPENDIX C

- Bat Tree Assessment

Tree bat potential

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201059 - 31 Elsworthy Road
201059-ED-12

Tree No.	Species	Tree Tree group	BCT Category (explanation at end of schedule)	Notes	Ecological Recommendations
1	*Olea europaea* Olive	Tree	Negligible	No notable features of bat roost potential visible.	No further surveys required.
2	*Acacia sp.* Acacia sp.	Tree	Negligible	No notable features of bat roost potential visible.	No further surveys required.
3	*Betula sp.* Birch	Tree	Negligible	No notable features of bat roost potential visible.	No further surveys required.
4	*Acacia sp.* Acacia sp.	Tree		Off site tree not assessed.	No further surveys required.
5	*Magnolia salicifolia* Magnolia sp.	Tree	Negligible	No notable features of bat roost potential visible.	No further surveys required.
6	*Sambucus sp.* Elder sp.	Tree	Negligible	No notable features of bat roost potential visible.	No further surveys required.
7	*Betula sp.* Birch	Tree	Negligible	No notable features of bat roost potential visible.	No further surveys required.
8	*Cupressus sp.* Cypress sp.	Tree	Negligible	No notable features of bat roost potential visible.	No further surveys required.
9	*Magnolia salicifolia* Magnolia sp.	Tree	Negligible	No notable features of bat roost potential visible.	No further surveys required.
10	*Ligustrum sp.* Privet sp.	Tree	Negligible	No notable features of bat roost potential visible.	No further surveys required.
11	*Corylus sp.* Hazel sp.	Tree	Negligible	No notable features of bat roost potential visible.	No further surveys required.
12	*Pyrus sp.* Pear sp.	Tree	Negligible	No notable features of bat roost potential visible.	No further surveys required.

201059 - 31 Elsworthy Road
201059-ED-12

Tree No.	Species	Tree Tree group	BCT Category (explanation at end of schedule)	Notes	Ecological Recommendations
13	*Fraxinus sp.* Ash sp.	Tree	Moderate	Tree in neighbouring garden. Very limited view. Small tree crown has visible wounds which may offer suitable features for roosting bats.	Evidence should be provided to demonstrate how the potential disturbance of roosting bats in tree T13 will be minimised to a negligible level by control of potentially disturbing activities. If potential disturbance cannot be sufficiently minimised, a climbed inspection of the tree should be undertaken by a suitably licensed ecologist to investigate the features within the tree more closely to assess their potential for roosting bats (any time of year). If access cannot be gained to the tree, an emergence/re-entry survey should be undertaken on two occasions between May and August to ascertain the presence or absence of roosting bats. The balcony of the property at 31 Elsworthy Road gives a partial view of the top of the tree.
14	*Betula sp.* Birch	Tree	Negligible	No notable features of bat roost potential visible.	No further surveys required.
15	*Betula sp.* Birch	Tree	Negligible	No notable features of bat roost potential visible.	No further surveys required.
16	*Pinus sp.* Pine sp.	Tree	Negligible	No notable features of bat roost potential visible.	No further surveys required.
17	*Pinus sp.* Pine sp.	Tree		Off site tree not assessed.	No further surveys required.
18	*Platanus x hispanica* London Plane	Tree		Off site tree not assessed.	No further surveys required.

Bat Potential

Negligible - Negligible habitat features on site likely to be used by roosting bats.

Low - A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.

Moderate - A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.

High - A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Roost - A known or confirmed bat roost.

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

Soft-fell method

For some trees (see above), it is recommended that a precautionary 'soft-fell/prune' method is used in order to minimise the risk of harm to bats, as follows:

1. During felling/ pruning, trees or limbs must be lowered carefully to the ground using ropes.
2. If any cracks or fissures are observed, cross-cutting these features must be avoided.
3. Trees and limbs must left on the ground for 24 hours, to allow any bats to escape if present, although this is considered unlikely.

APPENDIX E

- Legislation

Statutes and English Law

Reptiles

All species of native reptiles are protected against killing or injury under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). The sand lizard (*Lacerta agilis*) and smooth snake (*Coronella austriaca*) are further protected under The Conservation of Habitats and Species Regulations 2017 and The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 against capture or disturbance and the places they use for breeding, resting, shelter and protection are protected from being damaged or destroyed.

Great Crested Newts

The great crested newt and its habitat are protected under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 and The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. This legislation makes it an offence to deliberately kill, injure or capture a great crested newt; deliberately disturb a great crested newt; damage, destroy or obstruct access to a structure used for shelter or protection by a great crested newt; or possess or transport a great crested newt.

Bats

All species of bat and their breeding sites or resting places (roosts) are protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2017 and The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and Section 9 of the Wildlife and Countryside Act 1981. It is an offence for anyone intentionally to kill, injure or handle a bat, to possess a bat (whether live or dead), disturb a roosting bat, or sell or offer a bat for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.

Badgers

Badgers and their setts are protected under the Protection of Badgers Act 1992 which makes it an offence to kill, injure or possess a badger; interfere with, damage or destroy a badger sett including obstructing access to a badger sett; cruelly treat or harm a badger; or disturb a badger in a sett.

Otters

Otters and their resting places are protected under the Wildlife and Countryside Act 1981 (as amended) and the The Conservation of Habitats and Species Regulations 2017 and The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. This legislation makes it an offence to deliberately kill, injure or capture an otter; deliberately disturb an otter in their breeding or resting places; damage, destroy or obstruct access to their resting or breeding places.

Water Voles

Water voles are protected under the Wildlife and Countryside Act 1981 (as amended) from killing or taking by certain prohibited methods. Their breeding and resting places are fully protected from damage, destruction or obstruction; it is also an offence to disturb them in these places.

Dormice

Hazel dormice are protected under both The Conservation of Habitats and Species Regulations 2017 and The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and the Wildlife and Countryside Act 1981 (as amended). Dormice and their breeding sites and resting places are fully protected. Without a licence it is an offence for anyone to deliberately disturb, capture, injure or kill them. It is also an offence to damage or destroy their breeding or resting places, to disturb or obstruct access to any place used by them for shelter. It is also an offence to possess or sell a wild dormouse.

Birds

All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to kill, injure or take wild birds; take, damage or destroy the nest of wild birds while it is in use or being built; or take or destroy the eggs of wild birds.
Certain bird species are listed on Schedule 1 of The Wildlife and Countryside Act 1981 (as amended). Under this legislation they are afforded the same protection as all wild birds and are also protected against **disturbance** whilst building a nest, or on or near a nest containing eggs and or unfledged young.

White-clawed crayfish

White-clawed crayfish are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) protecting them from harm, disturbance and capture without an appropriate licence. It is illegal to buy or sell white-clawed crayfish whether alive or dead.

Invertebrates

Three UK invertebrate species are protected under The Conservation of Habitats and Species Regulations 2017 and The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 – large blue butterfly, fisher's estuarine moth, little ramshorn whirlpool snail. It is an offence for anyone to deliberately disturb, capture, injure or kill them. It is also an offence to damage or destroy their breeding or resting places, to disturb or obstruct access to any place used by them for shelter. It is also an offence to possess, or sell these species.
Approximately 400 further invertebrate species are listed as 'Species of Principle Importance under Section 41 of the NERC Act (see below).

Invasive Plant Species

It is prohibited to plant or otherwise cause to grow in the wild any species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). The Environmental Protection Act 1990 also classifies certain invasive plants as controlled waste which must be disposed of safely at an appropriately licensed landfill site (e.g. Japanese knotweed).
Under section 57 of the Anti-social Behaviour, Crime and Policing Act 2014, if an individual or an organisation fails to control an invasive plant species which is having a detrimental effect on the quality of life of those in the locality. A notice can be issued after a mandatory written warning has been served. Breach of this notice, without reasonable excuse, would be a criminal offence, subject to fixed penalty notice (a penalty of £100) or prosecution. On summary conviction an individual could be liable to a level 4 fine and an organisation (e.g. a company) could be liable to a fine not exceeding £20,000.

Planning Policy

In addition to the statutes described above, various planning policy imposes duties upon planning applicants to take account of protected species and habitats at sites of proposed development and in particular, protected species. The objective of this policy is to prevent a net loss of species and habitats diversity identified as priorities for the U.K. as a consequence of development activity.

National Planning Policy Framework (NPPF)

The National Planning Policy Framework is clear that pursuing sustainable development includes moving from a net loss of biodiversity to achieving net gains for nature, and that a core principle for planning is that it should contribute to conserving and enhancing the natural environment and reducing pollution.
Planning policies should promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations. If significant harm 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.

Natural Environment and Rural Communities Act (NERC Act)

Section 40 of the Natural Environment and Rural Communities Act 2006 places a duty on all public authorities in England and Wales to have regard, in the exercise of their functions, to the purpose of conserving biodiversity.

Priority Habitats and Species

Priority habitats and species are defined (NPPF, 2018) as 'Species and Habitats of Principle Importance included in the England Biodiversity List published by the Secretary of State under Section 41 (S41) of the Natural Environment and Rural Communities Act 2006 (NERC Act)'. The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under the NERC Act, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Fifty-six **habitats** of principal importance are included on the S41 list. These are all the habitats in England that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework. They include terrestrial habitats such as upland hay meadows to lowland mixed deciduous woodland, and freshwater and marine habitats such as ponds and subtidal sands and gravels.

There are 943 **species** of principal importance included on the S41 list. These are the species found in England which were identified as requiring action and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework. In addition, the Hen Harrier has also been included on the list because without continued conservation action it is unlikely that the Hen Harrier population will increase from its current very low levels in England.

ODPM Circular 06/2005

This Government Circular entitled 'Biodiversity and Geological conservation – Statutory obligations and their impact within the planning system' (ODPM, 2005) provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England.

The potential effects of a development, on habitats or species listed as priorities under Section 41 of the NERC Act, and by Local Biodiversity Partnerships, together with policies in the England Biodiversity Strategy, are capable of being a material consideration in the preparation of regional spatial strategies and local development documents and the making of planning decisions.

The presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat. It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted. However, bearing in mind the delay and cost that may be involved, developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of the species being present and affected by the development. Where this is the case, the survey should be completed and any necessary measures to protect the species should be in place, through conditions and/or planning obligations, before the permission is granted.

Statutory and Non-Statutory Sites

Name	Statutory/Non-statutory	Definition
SAC – Special Area of Conservation	Statutory	Strictly protected sites designated under the EC Habitats Directive, that will make a significant contribution to conserving habitats or species identified in Annexe I and II of the Directive (as amended).
SPA – Special Protection Area	Statutory	Strictly protected sites classified in accordance with Article 4 of the EC Birds Directive. They are classified for rare and vulnerable birds (as listed on Annex I of the Directive).
SSSI – Site of Special Scientific Interest	Statutory	SSSIs provide statutory protection for the best examples of the UK's flora, fauna, or geological or physiographical features.
NNR – National Nature Reserve	Statutory	NNRs contain examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats or to provide opportunities for scientific study.
LNR – Local Nature Reserve	Statutory	LNRs are declared and managed for nature conservation, and provide opportunities for research and education, or simply enjoying and having contact with nature.
Ramsar – Ramsar Site	Statutory	Ramsar sites are wetlands of international importance designated under the Ramsar Convention.
LWS – Local Wildlife Site	Non-statutory	Areas of land with significant wildlife value for the local area.
SINC – Site of Importance for Nature Conservation	Non-statutory	Areas of land with significant wildlife value for the local area.
CWS – County Wildlife Site	Non-statutory	Areas of land with significant wildlife value for the county.

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