



The Spinney, Essendon

Preliminary Ecological Appraisal

Report for Chassay Studio Ltd

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Summary of key issues

The Ecology Consultancy was commissioned to carry out a Preliminary Ecological Appraisal (PEA), comprising a Phase 1 habitat survey, protected species assessment and ecological evaluation of land at the Spinney, Essendon. The main findings of the PEA are as follows:

- The site comprised a residential property and a large garden with outbuildings. The main habitats present included mixed semi-natural woodland, introduced shrubs, bare ground, amenity grassland, species-poor hedgerows, hardstanding and scattered trees.
- The site does not form part of any statutory or non-statutory designated nature conservation site. There are no statutory designated sites within 2km of the site. The nearest non-statutory site is St Mary's Church, Essendon a Local Wildlife Site located 200m to the south west of the site.
- The majority of the habitats present are of value within the immediate vicinity of the site only (but may assume higher value where they support protected and/or notable species). The woodland and a veteran oak tree represent the habitat of highest value at the site. It is recommended that, where possible, both the veteran tree and the majority of the woodland habitat is retained as part of development proposals. Working under the principle of 'net-gain' in line with national planning policy, compensation should also be sought for the loss of habitats on site. This should be achieved through the provision of wildlife planting within the soft landscape plans.
- **Bats** – Building 1 and seven trees with moderate potential to support a bat roost were identified within the site boundary and will be affected by the development. In order to comply with legislation, further survey is required to ascertain if any bats are using these trees and building for roosting. Lighting measures during and post construction are also provided.
- **Dormouse** - habitats with low potential to support dormouse were present on site in the form of hedgerows and mixed semi natural woodland. In order to comply with legislation, precautionary measure must be undertaken whereby, the on-site woodland and hedgerows must be cleared outside the sensitive dormouse hibernation period (November - May) under ecological supervision.
- **Great crested newts** – the site contained suitable great crested newt terrestrial habitat (woodland, hedgerows and compost heaps). A great crested newt Habitat Suitability Index of ponds within 500m of the site is recommended, followed by presence/likely absence surveys if required.

- **Badger** – the woodland, scrub and hedgerow habitats within the site have moderate potential to support badger. A badger walkover survey is recommended prior to works to determine the presence/likely absence of badger on site.
- **Breeding birds** – breeding birds were confirmed as being present on site. Bird boxes, buildings, shrubs, trees and hedgerows on site all have potential to support breeding birds and most will be affected by the development. In order to comply with legislation, the removal of vegetation must be carried out September to February inclusive, to avoid the main bird breeding season. However, this must not be undertaken ahead of bat or dormice surveys.
- **Reptiles** – habitats with low potential to support reptiles were present at the site. In order to comply with legislation, it is recommended that a precautionary approach is taken whereby habitats are removed in such a way as to minimise the risk of killing and injuring reptiles and dissuade them from using the site during construction.
- Recommendations to enhance the biodiversity value of the site in accordance with national and local planning policies comprise the inclusion of wildlife planting; the provision of bird nesting and bat roosting opportunities; and wildlife-friendly fencing.

1 Introduction

BACKGROUND TO COMMISSION

- 1.1 The Ecology Consultancy was commissioned by Chassay Studio Ltd on 22 January 2018, to carry out a Preliminary Ecological Appraisal (PEA) of land at The Spinney Essendon. The Ecology Consultancy completed a PEA for the site in February 2016 to inform a planning application (The Ecology Consultancy, 2016). Planning permission was granted in October 2016 for the demolition of the existing house and construction of two dwellings. However, a new planning application for an alternative development proposal is now required. This appraisal was carried out in order to provide ecological information to inform the current planning application. The appraisal considers land within the planning application site boundary (hereon referred to as ‘the site’) as indicated on the plan provided by the client (Chassay Studio, 2017).

SCOPE OF THE REPORT

- 1.2 This aim of this appraisal is to provide baseline ecological information about the site. This will be used to identify any potential ecological constraints associated with the proposed development and/or to identify the need for additional survey work to further evaluate any impact that may risk contravention of legislation or policy relating to protected species and nature conservation. Where necessary, avoidance, mitigation/compensation and/or enhancement measures have been recommended to ensure compliance.
- 1.3 This appraisal is based on the following information sources:
- a desk study of the site and land within a 2 kilometre (km) surrounding radius;
 - a Phase 1 habitat survey (JNCC, 2010) of the site to identify and map the habitats present;
 - a protected species assessment of the site to identify features with potential to support legally protected species; and
 - an evaluation of the site’s importance for nature conservation.
- 1.4 This appraisal has been prepared with reference to best practice guidance published by the Chartered Institute for Ecology and Environmental Management (CIEEM, 2017) and as detailed in British Standard 42020:2013 *Biodiversity - Code of Practice for Biodiversity and Development* (BSI, 2013).

- 1.5 The survey, assessment and report were conducted and written by Verity Heard BSc, MSc, GradCIEEM, an Ecologist with over four years' experience who is competent in carrying out Phase 1 habitat surveys and protected species assessments.

SITE CONTEXT AND STATUS

- 1.6 The site is located within a rural setting south of the centre of Essendon, consisting predominantly of residential properties surrounded by woodland and agricultural fields. It is bound by High Road in the west, a large golf course in the east and woodland in the south and north. Further afield, approximately 600 metres (m) west of the site lies the Essendon Brook and the River Lea is approximately 1.7 km north of the site.
- 1.7 The proposed development site totals approximately 1 hectares (ha) in size. The National Grid reference for the centre of the site is TL 275 080.

DEVELOPMENT PROPOSALS

- 1.8 The development proposals for the site, based on current plans provided by the client (Chassay Studios, 2017), are to demolish the existing house and three outbuildings on the site and build three detached houses. The proposed development will also include a newly formed additional entrance onto the site from High Road, but this will be located in the same position as the new entrance already consented and is to serve both plot 2 and plot 3 together.

RELEVANT LEGISLATION AND PLANNING POLICY

- 1.9 The following key pieces of nature conservation legislation are relevant to this appraisal. A more detailed description of legislation is provided in Appendix 6:
- The Conservation of Habitats and Species Regulations 2010 (as amended) (commonly referred to as the Habitats Regulations);
 - Wildlife and Countryside Act 1981 (as amended);
 - Natural Environment and Rural Communities Act 2006;
 - Protection of Badgers Act 1992; and
 - Wild Mammals (Protection) Act 1996.
- 1.10 The National Planning Policy Framework (Department of Communities and Local Government, 2012) requires local authorities to avoid and minimise impacts on

biodiversity and, where possible, to provide net gains in biodiversity when taking planning decisions.

- 1.11 Other planning policies at the local level which are of relevance to this development include the Policy RH11: Biodiversity and Development, Policy R16 - Protection of Species, Policy R17 - Trees, Woodland and Hedgerows and Policy D8: Landscaping of the Welwyn and Hatfield District Local Plan (2005). Further information is provided in Appendix 6.

2 Methodology

DESK STUDY

2.1 The following data sources were reviewed to provide information on the location of statutory designated sites¹, non-statutory designated sites², legally protected species³, Species and Habitats of Principal Importance⁴ and other notable species⁵ and notable habitats⁶ that have been recorded within a 2km radius of the site:

- Hertfordshire Environmental Records Centre (HERC), the local Biological Records Centre, principally for species records and information on non-statutory sites. HERC also performed a search on behalf of the Hertfordshire and Middlesex Badger group on their badger group data;
- MAGIC (<http://www.magic.gov.uk/>) - the Government's on-line mapping service; and
- Ordnance Survey mapping and publically available aerial photography.

2.2 Records provided by the desk study are provided in Section 3 and Appendix 2 of this report. Records for relevant protected or noteworthy species have been used to inform the assessment of the potential for protected species at the site and to provide a preliminary view of the site's ecological value but are not presented in the report.

HABITAT SURVEY

2.3 A habitat survey of the site was carried out on 23 January 2018 in cool, clear, dry conditions. It covered the entire site including boundary features. Habitats were described and mapped following standard Phase 1 habitat survey methodology (JNCC, 2010). Habitats were marked on a paper base map and subsequently digitised using

¹ Statutory designations include Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, National Nature Reserves (NNR), Sites of Special Scientific Interest (SSSI) and Local Nature Reserves (LNR).

² Non-statutory sites are designated by local authorities (e.g. Sites of Importance for Nature Conservation or Local Wildlife Sites).

³ **Legally protected species** include those listed in Schedules 1, 5 or 8 of the Wildlife and Countryside Act 1981; Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended); or in the Protection of Badgers Act 1992 (as amended).

⁴ **Species of Principal Importance** are those listed on Section 41 of the Natural Environment and Rural Communities Act, 2006.

⁵ **Notable species** include Species of Principal Importance under the Natural Environment and Rural Communities Act 2006; Local Biodiversity Action Plan (LBAP) species; Birds of Conservation Concern (Eaton *et al.*, 2015); and/or Red Data Book/nationally notable species (JNCC, undated).

⁶ **Notable habitats** include Habitats of Principal Importance under the Natural Environment and Rural Communities Act, 2006; those included in an LBAP; Ancient Woodland Inventory sites; and Important Hedgerows as defined by the Hedgerow Regulations 1997.

ESRI ArcGIS software. Habitats were also assessed against descriptions of Habitats of Principal Importance as set-out by the JNCC (BRIG, 2008)⁷.

- 2.4 Records for dominant and notable plants are provided, as are incidental records of birds and other fauna noted during the course of the habitat survey.
- 2.5 Common names are used where widely accepted – for amphibians, birds, fish, mammals, reptiles and vascular plants. Scientific names are provided for other groups but at first mention only if there is also an accepted common name.
- 2.6 The site was also surveyed for the presence of invasive plant species as defined by Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). However, detailed mapping of such species is beyond the scope of this commission and the location on habitat plan are indicative only.
- 2.7 Target notes are used to provide information on specific features of ecological interest (e.g. a badger sett) or habitat features that were too small to be mapped.

PROTECTED AND INVASIVE SPECIES ASSESSMENT

- 2.8 The suitability of the site for legally protected species was assessed on the basis of relevant desk study records⁸ combined with field observations from the habitat survey. The likely value of habitat for protected species occurrence was ranked on a scale from ‘negligible’ to ‘present’ as described in Table 2.1.
- 2.9 The assessment of habitat suitability for protected or notable species was based on professional judgement drawing on experience of carrying out surveys of a large number of urban and rural sites and best practice survey guidance on habitat suitability and identifying field signs. Further information is provided in CIEEM’s Sources of Survey Methods⁹

Table 2.1: Protected species assessment categories

Category	Description
Present	Presence confirmed from the current survey or by recent, confirmed records.

⁷ Data required to confirm that certain habitats (including rivers and ponds) meet criteria for Habitats of Principle Importance is beyond that obtained during a Phase 1 habitat survey. In these cases the potential for such habitats to meet relevant criteria is noted but further surveys to confirm this assessment may be recommended

⁸ Primarily dependent on the age of the records, distance from the site and types of habitats at the site.

⁹ <http://www.cieem.net/sources-of-survey-methods-sosm->

High	Habitat present provides all of the known key requirements for a given species/species group. Local records are provided by desk study. The site is within or close to a national or regional stronghold for a particular species. Good quality surrounding habitat and good connectivity.
Moderate	Habitat present provides all of the known key requirements for a given species/species group. Several desk study records and/or site within national distribution and with suitable surrounding habitat. Factors limiting the likelihood of occurrence may include small habitat area, barriers to movement and disturbance.
Low	Habitat present is of relatively poor quality for a given species/species group. Few or no desk study records. However, presence cannot be discounted on the basis of national distribution, nature of surrounding habitats or habitat fragmentation.
Negligible	Habitat is either absent or of very poor quality for a particular species or species group. There were no desk study records. Surrounding habitat unlikely to support wider populations of a species/species group. The site may also be outside or peripheral to known national range for a species.

2.10 The findings of this assessment establish the need for protected species surveys that are required to achieve compliance with relevant legislation. Surveys are commonly required for widespread species such as bats, great crested newt, reptiles and badger; but may be necessary for other species if suitable habitat is present.

2.11 Surveys may be required where a site is judged to be of low suitability for a particular species/species group. However, in some cases there may be opportunities to comply with legislation, without further survey, through precautionary measures prior to and during construction.

SITE EVALUATION

2.12 The site's ecological value has been evaluated broadly following guidance issued by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017) which ranks the nature conservation value of a site according to a geographic scale of reference: international, national, regional, county/metropolitan, district/borough, local/parish or of value at the site scale. In evaluating the nature conservation value of the site the following factors were considered: nature conservation designations; species/habitat rarity; naturalness; fragility and connectivity to other habitats.

DATA VALIDITY AND LIMITATIONS

2.13 Every effort has been made to provide a comprehensive description of the site, however, the following limitations apply to this assessment.

- The protected species assessment provides a preliminary view of the likelihood of protected species occurring on the site. It should not be taken as providing a full and definitive survey of any protected species group. Additional surveys may be recommended if on the basis of the preliminary assessment or during subsequent surveys it is considered reasonably likely that protected species may be present.
- The walkover habitat survey was carried out during sub-optimal season for plant identification. As such, species present on site might have been under recorded. A number of ornamental plant species were present on site. These have been identified to species level where possible; however, owing to the large number of horticultural varieties, some plants could not be identified. Ornamental plants may be of value to wildlife; however, none are characterised as rare or notable from a native biodiversity conservation perspective. Thus this limitation does not affect the overall conclusions of this appraisal.
- The ecological evaluation is preliminary and may change subject to the findings of further ecological surveys (should these be required).
- Even where data for a particular species group is provided in the desk study, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest, the area may simply be under-recorded.
- Where only four figure grid references are provided for protected species by third parties, the precise location of species records can be difficult to determine and they could potentially be present anywhere within the given 1km x 1km square. Equally six figure grid references may be accurate to the nearest 100m only.
- The Phase 1 habitat survey does not constitute a full botanical survey or provide accurate mapping of invasive plant species.
- Ecological survey data is typically valid for two years unless otherwise specified.

2.14 Despite these limitations, it is considered that this report accurately reflects the habitats present, their biodiversity values and the potential of the site to support protected and notable species.

3 Results

DESIGNATED SITES

Statutory designated nature conservation sites

- 3.1 The proposed development site is not subject to any statutory nature conservation designations. There are no European or national statutory sites within a 2km radius of the site.

Non-statutory designated nature conservation sites

- 3.2 The proposed development site does not form part of a non-statutory designated site. There are 32 non-statutory sites designated as Local Wildlife Site (LWS) located within the 2km data search area.
- 3.3 The closest, St Mary's Church, Essendon, is located approximately 200m south west of the site. Details of this and all other non-statutory designated sites within 2km of the development site are described in Appendix 2.

Habitat inventories and landscape-scale conservation initiatives

Ancient woodland

- 3.4 Ten areas of woodland within a 2km radius of the site appear on the ancient woodland inventory. The closest of these is the Ancient Semi-Natural Woodland site Backhouse Wood, located approximately 510m west of the site.

Habitats of Principal Importance

- 3.5 There is Mixed Semi Natural Woodland on site. However, following the survey, this habitat was not thought to be of sufficient quality to qualify as a Habitat of Principal Importance (See section 3.18 for further information).

PHASE 1 HABITAT SURVEY

Overview

- 3.6 The site consists of four buildings surrounded by a large garden and a small area of hardstanding. The garden was largely semi-natural mixed woodland and amenity grassland with scattered trees. A species-poor intact hedgerow was present along the north eastern boundary and a small area in front of the main house comprised a small number of introduced shrubs.

3.7 Phase 1 habitat types are mapped in Figure 1, areas are given in Table 3.1. A description of dominant and notable species and the composition of each habitat is provided below.

Table 3.1: Phase 1 Habitat Areas

Phase 1 Habitat	Extent	%
Mixed semi-natural woodland	0.46ha	55
Amenity grassland and scattered trees	0.30ha	36
Buildings and hardstanding	0.04ha	3
Introduced shrub	0.02ha	1
Species-poor non-native hedgerow	120m	

Habitat description

Buildings and hardstanding

3.8 Four buildings were situated within the site and are described below, in terms of their suitability for roosting bats.

- Building 1 was a two-storey building of brick and concrete construction present in the north of the site. It comprised a pitched roof with clay tiles, a chimney, wooden soffits and barge boards and metal framed glass windows. On the building's eastern wall was a flat roof extension covered by bitumen felt. The buildings brick work was in a good state of repair with no gaps or cracks. However, a linear gap was noted between the soffit and fascia board on the western elevation of the building and a small number of gaps were noted underneath the roof tiles on the eastern elevation. (See Appendix 3, Photograph 1, 2 & 6).
- Building 2 was located adjacent to Building 1. It was a brick-built garage with a pebble dash render and a flat roof that was tightly sealed by plastic sheeting. The eastern elevation of the building was almost entirely clad in ivy however, no gaps or holes could be seen on the building (See Appendix 3, Photograph 3).
- Building 3 was a single-storey wooden shed that was located in the west of the site with a wooden porch and a low pitched felt roof in a good state of repair. (See Appendix 3, Photograph 4).
- Building 4 was a pebble dash rendered shed with a flat bitumen felt roof and wooden barge boards. The wooden barge boards were weathered with paint missing and the wood was rotten in places (See Appendix 3, Photograph 5).

3.9 There were adjacent areas of hardstanding, including a drive to the main access point on the western boundary of the site.

Amenity grassland with scattered trees

- 3.10 Amenity grassland formed the northern and eastern section of the garden. Moss species dominated the sward with annual meadow grass, perennial rye grass, daisy, plantain and white clover. Hart's tongue fern was present rarely. Scattered tree species included ivy-clad hawthorn trees, mature common lime trees with bird boxes, mature Prunus species and mature and veteran oak trees (See Appendix 3, Photographs, 6-9).

Semi-natural mixed woodland

- 3.11 Whilst a number of planted trees were present, these comprised less than 30% of all trees on site. The canopy contained 12 species including abundant common oak and common lime, frequent sycamore, with occasional beech, holly, silver birch, Lawson cypress, hornbeam, wild cherry, hawthorn, white mulberry, and holm oak. The understorey was sparse comprising abundant cherry laurel and occasional holly, yew and large patches of rhododendron, with locally frequent mahonia, spotted laurel and spindle. Ivy was frequently growing on trees and across the woodland floor. Ground flora species comprised snowdrops, fern, common dog violet and moss. A number of fallen branches were present throughout the woodland, providing deadwood habitat and there was also compost and log piles in the west of the woodland.

Introduced shrub

- 3.12 Various planted ornamental shrubs were present around the main house (B1) (see Photograph 6). Species included dominant spindle, and frequent box, barberry, Christmas berry, skimmia species and camelia.

Species-poor non-native hedgerow

- 3.13 Coniferous hedging approximately 10m high formed almost the entire boundary of the site with the exception of a few gaps in the south-east and south-west corners.
- 3.14 A hedgerow lined almost the entire north east boundary of the site, with the exception of a walkway in its centre leading into adjacent woodland. It was approximately 120m in length, 1m in width and 1.5m in height. It was dominated by cherry laurel and holly which were interspersed with blackthorn. (See Appendix 3, Photograph 10). Other species were present within and at the base of the hedgerow including silver birch, pedunculate oak, cow parsley and common chickweed.

PROTECTED AND INVASIVE SPECIES ASSESSMENT

3.15 The potential for the site to support protected species has been assessed using criteria provided in Table 3.2, based on the results of the desk study and observations made during the site survey of habitats at the site. Other legally protected species are not referred to as it is considered that the site does not contain habitats that would be suitable to support them. The following species/species groups are potentially present at the site:

- bats;
- dormice;
- great crested newts;
- breeding birds;
- reptiles; and
- badgers.

3.16 The table also summarises relevant legislation and policies relating to protected and invasive species. Key pieces of statute are summarised in Section 1 and set-out in greater detail in Appendix 6.

Table 3.2: Protected and Invasive Species Assessment

Habitat/ species	Status ^{10, 11}	Likelihood of occurrence
Bats	HR WCA S5	<p>The site is linked to suitable off-site roosting and foraging habitats via hedgerows, scrub and grassland and contained habitats suitable for roosting and foraging bats as described below. Given its remote rural location and limited road lighting nearby, illumination of the site is also likely to be low.</p> <p>There are desk study records of six species of bats within 2km of the site including natterer's, common pipistrelle, soprano pipistrelle and brown long-eared bats.</p> <p>Roosting - buildings</p> <p>MODERATE: A single building on site, Building 1 was assessed as having moderate potential to support roosting bats. Its roof had a small number of gaps underneath its tiles and the fascia and soffit box were unsealed.</p> <p>Roosting – Trees</p> <p>Seven trees on the site had potential to support roosting bats. The potential for each tree to support a bat roost is described below:</p> <p>HIGH: A large veteran oak tree comprised numerous features including holes, cavities, broken, cracked and split branches (see Target Note 3 in Appendix 5 and Photograph 9 in Appendix 3). Immediately adjacent to the southern boundary of the site there was an additional veteran tree with numerous potential roost features. Veteran trees are considered likely to support roosting bats and in turn increase the likelihood of bats finding and utilising other roosting features on site.</p> <p>MODERATE A mature prunus tree and lime tree on site included woodpecker and a rot hole respectively. Four mature lime trees also had bird boxes which can occasionally be used as a roosting site by bats.</p> <p>There is potential for bats to be present within seven trees and Building 1 on site which are scheduled for removal. As such, they will be considered further in this report.</p>
Dormice	HR WCA S5	<p>LOW: The mixed semi-natural woodland and hedgerows may provide suitable habitat for hazel dormouse. Potential food sources included yew, oak and hawthorn. There is also a record for dormouse approximately 1.7km from the site with good connectivity to the site.</p> <p>The site has connectivity to suitable off-site habitats. In particular, a larger area of woodland with similar species and of a dense structure is located north east of the site, it is connected by the onsite species poor hedgerow and semi-natural woodland. It is also adjacent to</p>

¹⁰ The following abbreviations have been used to signify the legislation regarding different species: HR = Conservation of Habitats and Species Regulations 2010 (as amended); WCA S1 = Schedule 1 of the Wildlife and Countryside Act 1981 (as amended); WCA S5 = Schedule 5 of the Wildlife and Countryside Act 1981 (as amended); WCA S9 = Schedule 9 of the Wildlife and Countryside Act 1981 (as amended); PBA = Protection of Badgers Act, 1992.

¹¹ The following abbreviations have been used to signify the policy of conservation assessments applying to notable species: SPI = Species of Principal Importance under the NERC Act 2006; LBAP = Local Biodiversity Action Plan species; BoCC = Birds of Conservation Concern - amber list / red list (Eaton *et al.*, 2015); and/or RD/NN = red data book/nationally notable species (JNCC, undated).

Table 3.2: Protected and Invasive Species Assessment

Habitat/species	Status ^{10, 11}	Likelihood of occurrence
		<p>Essendon Golf Course surrounded by open countryside and residential properties with large gardens in the west. However, the site is relatively small, it is adjacent to a B road in the west and the shrub layer in the woodland is limited.</p> <p>Overall, the likelihood of this species persisting at this site is considered likely to be of a remnant, low population and movement of this species through the landscape cannot be discounted.</p> <p>As there is a low likelihood of presence, dormice are considered further in this report.</p>
Great crested newts	HR WCA S5	<p>MODERATE: There are no waterbodies on site. However, the site contained suitable terrestrial habitat (woodland and hedgerow, compost heaps etc) and is located within 500m of waterbodies with potential to provide suitable breeding habitat.</p> <p>The site has connectivity to a network of four ponds within a 500m radius of the site. The closest pond is approximately 200m north west. There is also a single great crested newt record in 2016 located approximately 2km from the site. Cherry laurel and rhododendron shrubs are sub-optimal terrestrial habitat, but the semi-natural woodland and hedgerows are of value with additional features such as deadwood and compost heaps (TN1).</p> <p>As there is a moderate potential for great crested newts to be present on site, they are considered further in this report.</p>
Breeding birds	WCA S5	<p>HIGH: The bird boxes (TN2), scrub, woodland, introduced shrub, species-poor non-native hedgerows and scattered trees provided suitable nesting habitat for common breeding bird species. Several common bird species were observed during the habitat survey and an old birds nest was recorded in a lime tree in the centre of the site.</p> <p>It is considered that breeding birds utilise the habitats on site due to the presence of an old birds nest and in consideration of the lack of disturbance and good connectivity to the surrounding habitats.</p>
Reptiles	WCA S5	<p>LOW: Habitats on site suitable for supporting breeding or foraging reptiles comprised piles of garden waste (see Target Note 1, Appendix 5), woodland ground layer and introduced shrubs around the margins of the site. The site is also connected to areas containing standing water within 500m from the site which provides a suitable habitat for grass snake. There was one record for grass snake within 2km of the site. However, this record was over 20 years ago, located approximately 1.8 km west of the site.</p> <p>The woodland floor over much of the site largely comprised bare ground and scrub vegetation was dominated by cherry laurel and rhododendron which are unlikely to provide a sufficient foraging resource. Overall, the site is considered sub-optimal, but may support a small population of common and widespread species, such as slow worm.</p> <p>Considering the above, there is a low possibility that widespread reptiles may occur at the site in low numbers and as such they are considered further in Section 4 of this report.</p>

Table 3.2: Protected and Invasive Species Assessment

Habitat/ species	Status 10, 11	Likelihood of occurrence
Badgers	PBA	<p>MODERATE: There were 26 records of badger within 2km of the site. The nearest record was approximately 900m south of the site in 2014. The most recent was in 2017 approximately 1.5km north east from the site.</p> <p>Habitats on site were easily accessible via gaps in the hedgerow and southern boundary. The site provided suitable habitats for sett construction, there were no setts recorded at the time of the survey. However, two disused mammal burrows were located in the south of the site, partially collapsed and full of debris. Another sett was also noted offsite, immediately adjacent to the southern boundary of the site (see Target Note 7, Appendix 5 &, Photograph 11, Appendix 3).</p> <p>Given the small size of the site it is highly unlikely that the site forms an important part of a badger territory. However, the site is in a rural setting with good connectivity to the wider landscape. Badger may make use of woodland, scrub and hedgerow habitats within the site.</p> <p>Considering the above, there is a moderate possibility that badgers may occur at the site and as such they are considered further in Section 4 of this report.</p>
Invasive species	WCA S9	<p>PRESENT: There are no desk study records for invasive species within 2km of the site. Rhododendron was present on site, which is listed on Schedule 9.</p> <p>As invasive species listed on Schedule 9 are present on site, they are considered further in this report.</p>

NATURE CONSERVATION EVALUATION

- 3.17 The proposed development site is not subject to any nature conservation designations. With the exception of the woodland and veteran trees on site, all of the habitats present are common and widespread of low conservation value, none are deemed Habitats of Principal Importance.
- 3.18 Many existing trees on the site are the subject of a Tree Preservation Order (TPO) by Welwyn Hatfield Borough Council (Ref: TPO03 W4). The hedgerow is classified as species-poor and non-native and does not qualify as a priority habitat. The woodland on the site is classified as a Hertfordshire priority habitat, but is not considered to be a good example of its type. It is small in extent with a low diversity of woody species and has rhododendron and cherry laurel dominant in the shrub layer. As the woodland provides connectivity and may support protected species, such as bats, badgers or dormice it is considered to be of importance locally.
- 3.19 A list of note-worthy species including Species of Principal Importance and Hertfordshire BAP species likely to be supported by the habitats on site, as reported in the desk study or recorded during the survey, are as follows:
- slow worm and other widespread species of reptile;
 - dunnock, song thrush, house sparrow and other widespread but declining species of birds that are also species of conservation concern¹²;
 - hedgehog; and
 - stag beetle.
- 3.20 Due to the limited extent of suitable habitat and known distribution of the species in the area, it is considered likely any populations of these species (if present) would be of importance up to a local level only and are unlikely to comprise diverse assemblages or rare species.
- 3.21 Records for soprano pipistrelle and brown long-eared bats, which are both Species of Principal Importance, were provided in the desk study. It is not possible to confirm the value of bat populations that may be present at the site until further surveys have been undertaken. Recommendations for further survey are provided in Section 4.

¹² Birds of Conservation Concern - amber list / red list (Eaton *et al.*, 2015);

4 Potential Impacts and Recommendations

4.1 This section summarises the potential impacts on habitats and notable species that may be present at this site. The impact assessment is preliminary and further detailed assessment and surveys will be required to assess impacts and design suitable mitigation, where appropriate.

4.2 The following key ecological issues have been identified:

- The mixed semi natural woodland on site is of local importance, compensation for the loss of this habitat should be sought when working under the principle of net gain in line with planning policy.
- habitat suitable for roosting bats is present – further survey will be required to establish their presence/likely absence in Building 1 and trees that are due to be removed;
- habitat suitable for dormouse is present – measures must be undertaken to avoid killing or injuring dormouse prior to vegetation removal;
- habitat suitable for great crested newt is present – an assessment of ponds within 500m of the site will be required to establish their presence/likely absence prior to vegetation removal;
- habitat suitable for breeding birds is present – measures must be taken to avoid killing birds or destroying their nests;
- habitat suitable for widespread reptiles is present – measures must be taken to avoid killing or injuring reptiles;
- habitat suitable for badger is present – further survey is required immediately prior to development works to establish their presence/likely absence;
- invasive species, rhododendron is present on site, measures should be undertaken to ensure this specie is disposed of appropriately and is not spread into off site habitats;
- habitat suitable for small mammals such as hedgehog is present – measures should be taken to continue accommodating this species on site post-development; and
- a range of measures should be undertaken to satisfy the requirement for ecological enhancement included in planning policy.

CONSTRAINTS AND MITIGATION/COMPENSATION

Designated Nature Conservation Sites

- 4.3 No impacts are envisaged on statutory or non-statutory designated sites due to the small scale of the proposed development and distance of the site from any designated site. Therefore there are no constraints to the proposed development in this regard.

Habitats

- 4.4 Approximately 0.36ha of mixed semi natural woodland, 0.36ha of amenity grassland, as well as approximately 0.03 ha of introduced shrub will be removed for construction of the new dwellings. The development will also remove scattered trees and three outbuildings. Whilst the majority of these habitats are considered common and widespread within the local area, compensation for the loss of these habitats should be sought when working under the principle of 'net-gain' in line with national planning policy. This should be achieved through the provision of wildlife planting within the soft landscape plans. Best environmental practice measures should also be implemented to protect retained trees.

Bats

- 4.5 All British species of bat are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended). Under this legislation it is an offence to deliberately capture, kill, disturb and damage or destroy a bat roost. Some species of bat are also Species of Principal Importance and Hertfordshire BAP species.
- 4.6 Seven trees on site possessed features with potential to support roosting bats such as holes, broken or cracked branches and bird boxes (see Appendix 1, habitat map). Building 1 was also assessed as having moderate potential to support roosting bats. Building 1 is scheduled for removal. An internal inspection of the building, followed by at least one dusk emergence and one dawn re-entry survey is required to determine the presence/likely absence of roosting bats within Building 1 in line with best practice (Collins, et al 2016). The seven trees with potential (should they require removal) should be subject to a detailed climbed tree inspection to further assess their level of bat potential and the requirement for further surveys as outlined below to comply with legislation. Should a bat roost be present a Natural England licence and mitigation strategy may be required.

- 4.7 It is also recommended that measures are implemented to avoid night-time lighting of features with potential for roosting bats, as well as areas that could provide flight lines and foraging habitats for bats. Further advice on the locations and appropriate methods for controlling light emissions should be sought when commissioning the bat surveys noted above.

Dormouse

- 4.8 The semi-natural woodland and hedgerows on site had low potential to support dormice. As such, in line with best practice (Bright et al., 2006), precautionary measures for dormouse must be undertaken to avoid unlawful killing or injury during vegetation clearance, whereby, vegetation is cleared outside the sensitive dormouse hibernation period (November - May) under ecological supervision. Immediately prior to clearance, a suitability qualified ecologist will check for the presence of any dormouse. In the unlikely event that dormouse are found on site during the pre-clearance check, all works must cease and a European Protected Species Mitigation (EPSM) licence may be required to facilitate the lawful removal of the woodland as proposed in the current Proposed Sketch Plan (Ref 1610-A-30 v8).

Great crested newts

- 4.9 Great crested newts are protected under the Conservation of Habitats and Species Regulations 2010 (as amended) and the Wildlife and Countryside Act 1981 (as amended).
- 4.10 Terrestrial habitat on site was considered suitable to support great crested newt, therefore, a Habitat Suitability Index (HSI) assessment must be undertaken on any water bodies within 500m of the boundary to determine the probability of great crested newts being present within them (Oldham et al., 2000). If those water bodies are found to be suitable, further surveys to determine presence/likely absence may be required. HSI assessments can be carried out at any time of year, but further surveys for great crested newts are time constrained and can involve eDNA surveys (between mid-April and June) and/or pond surveys (between mid-March and mid-June).

Breeding birds

- 4.11 All wild birds and their nests are protected under the Wildlife and Countryside Act 1981 (as amended). Where the proposed works require the removal of bird boxes, buildings, shrubs, trees and hedgerows with potential to support breeding birds, this should be

carried out September to February inclusive, to avoid any potential offences relating to breeding birds during their main bird breeding season (Newton *et al.*, 2011).

- 4.12 If site clearance during the breeding season is unavoidable then potential nesting habitat must be inspected shortly before work commences to identify active birds' nests. Should they be present, the nest and a suitable buffer of habitat around it must be retained until the young have left the nest.

Reptiles

- 4.13 All species of reptile are protected from killing or injury under the Wildlife and Countryside Act 1981 (as amended).
- 4.14 Habitats on site with potential to support reptiles were restricted to piles of garden waste, woodland ground layer and introduced shrub. Consequently there is limited potential for reptiles to be present at the site and any populations present are likely to be small and comprised of widespread species such as slow-worm.
- 4.15 It is not necessary to carry out reptile surveys but management of suitable habitat is required to dissuade reptiles from using the site (should they be present), to avoid any potential impacts on reptiles and to comply with legislation. This will involve maintaining the areas of garden waste, amenity grassland and introduced shrub. The amenity grassland on site should be maintained as a regularly-mown sward that is unsuitable for reptiles until just before works commence.
- 4.16 Garden waste (compost heaps) and woodland edges that may provide cover or hibernation sites must be carefully removed by hand and with hand-held tools under the supervision of an ecologist to avoid any potential harm to reptiles. Any reptiles found on site should be moved by an ecologist to suitable nearby habitat, outside of the works area.

Badger

- 4.17 To avoid killing or injury of badgers during the construction phase, it is recommended that a walkover survey of the site and a 30m radius of the boundaries (access permitting) is carried out immediately prior to the start of development works to ensure that no setts have been created over the intervening period. If setts are discovered and may be impacted by the works, a Natural England Development Licence may be required.

Mammals

- 4.18 Although common mammals such as mole, red fox and European hedgehog may not receive the level of protection afforded to protected species, all wild animals are protected against intentional acts of cruelty under Wild Mammals (Protection) Act 1996. To avoid possible contravention, due care and attention should be taken when carrying out construction works (for example, operations near burrows or mole hills).
- 4.19 It is recommended that Heras fencing should be erected around works area to prevent animals entering the works site. Any excavations and trenches should be covered during non-working hours to minimise risk of animals getting trapped, injured and/or killed. An escape route, in the form of a platform (i.e. timber plank or gradual bank profile), should be provided in excavations and/or trenches that are too large to cover.
- 4.20 The proposed development will include the use of fencing to divide the residential properties and gardens and will fragment an area of foraging and nesting habitat of value to mammals. It is therefore recommended that connectivity is maintained between the gardens by installing wildlife-friendly fencing, known as 'hedgehog highways' with gaps or tunnels in the bottom panels/gravel boards to allow easy passage for small mammals to continue foraging in this area. This can be achieved for example by cutting a hole (approximately 10cm²) in certain gravel boards, which is large enough for small mammals to pass through, but small enough to contain pets (see Appendix 3, photograph 13).

Other protected species

- 4.21 In the unlikely event that any protected species are found during site clearance or construction, works must stop immediately and advice sought from a suitably qualified ecologist on how to proceed.

Environmental best practice

- 4.22 The invasive plant species, rhododendron, was present on the site within the woodland. It is an offence to plant or otherwise cause this species to grow in the wild, therefore if any of these plants are due to be removed as part of the proposed development it is advised that they are correctly disposed of following best practice guidelines – see <https://www.gov.uk/japanese-knotweed-giant-hogweed-and-other-invasive-plants> .
- 4.23 Retained trees and hedgerows should be protected in accordance with British Standards Institution (2012) guidelines. This includes the erection of a vertical barrier to

protect the trees and their root zones. Barriers are typically placed around the Root Protection Area (RPA). No works, tracking of heavy machinery or storage of materials should take place in protected areas. The contractor should erect ecological protection prior to any preliminary construction or preparation works e.g. clearing of the site or erection of temporary site facilities. Regular checks should be made to ensure the protection measures are intact and fenced habitats are not being impacted.

FURTHER SURVEY REQUIREMENTS

4.24 Table 4.1 lists further survey requirements as recommended in the constraints section.

Table 4.1: Further survey requirements

Species/ Habitat	Survey Requirement	Number of surveys and seasonal considerations
Bats	<p>Building 1: Internal Inspection of Building 1 loft void followed by at least one dusk emergence and one dawn re-entry survey.</p> <p>Trees: Four trees with bird boxes must be checked immediately prior to removal by a bat licenced ecologist prior to removal.</p> <p>Three trees with holes, cracks and splits must be subject to a climbed tree inspection and/or emergence/re-entry surveys as required.</p>	<p>Building 1: The presence/absence surveys must be carried out between May and September and spread at least two weeks apart during this period in line with best practice guidelines (Collins, 2016).</p> <p>Trees: Bird boxes should be checked for the presence of any bats (and birds nests as below) prior to removal during either March/April or September/October to avoid sensitive bat maternity and hibernation periods.</p> <p>Following a single climbed tree inspection, two emergence/re-entry survey visits are required for any features with moderate roost potential and three for those with high roost potential. Climbed tree inspections can be carried out at any time of year and emergence surveys must be carried out between May and August and spread evenly across this period (Collins, 2016).</p>
Dormouse	Removal of woodland and hedgerows under ecological supervision.	Vegetation clearance must occur outside the sensitive dormouse hibernation period (November - May) under ecological supervision.
Great Crested Newts	A HSI Assessment must be undertaken on suitable waterbodies within 500m of the site followed by eDNA surveys and/or presence/likely absence pond surveys (if required).	HSI assessments can be carried out at any time of year, but further surveys for great crested newts are time constrained; eDNA surveys (between mid-April and June) and/or pond surveys (between mid-March and mid-June).
Badger	Badger Walkover survey of the site and 30m radius.	Anytime
Breeding Birds	Breeding bird check of trees and bird boxes prior to removal	Trees with bird boxes (March/April or September/October) outside of the bat roosting period.

Table 4.1: Further survey requirements

Species/ Habitat	Survey Requirement	Number of surveys and seasonal considerations
Reptiles	Removal of compost heaps and woodland margins under ecological supervision	Anytime

OPPORTUNITIES FOR ECOLOGICAL ENHANCEMENT

4.25 Planning policy at the national and local level and strategic biodiversity partnerships encourage inclusion of ecological enhancements in development projects. Ecological enhancements can ensure a net gain in biodiversity is achieved and can contribute to green infrastructure and ecosystem services such as storm water attenuation and reducing the urban heat island effect. The following measures would be suitable for integration into the site's design, but would require a more detailed design to successfully implement.

Wildlife planting

4.26 Wildlife planting should be integral to the soft landscape plans and should include native species and/or species of recognised wildlife value¹³. The use of nectar-rich and berry producing plants will attract a wider range of insects, birds and mammals and continue to accommodate those already recorded at the site. Trees should also be provided and can be under-planted to improve structure and cover for wildlife. Consideration should also be given to creation of species-rich native hedgerows.

4.27 Good horticultural practice should be utilised, including the use of peat-free composts, mulches and soil conditioners, native plants with local provenance and avoidance of the use of invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

4.28 Landscaping should include the use of climbing plants growing on a support structure to provide vertical nesting habitat and foraging resources for birds and invertebrates. The support structure should ideally be placed 50-100mm off the façade. Plants should

¹³ For example The Royal Horticultural Society (RHS) Perfect for Pollinators Scheme <https://www.rhs.org.uk/science/conservation-biodiversity/wildlife/encourage-wildlife-to-your-garden/plants-for-pollinators> and the joint RHS/Wildlife Trust's Gardening With Wildlife In Mind Database <http://www.joyofplants.com/wildlife/home.php>

comprise native species or non-native species of recognised wildlife value and either deciduous or evergreen species depending on the specification.

Provision of bird nesting opportunities

4.29 The continued provision of bird boxes would be appropriate at this site and any that are lost should be replaced. Many different designs are available including boxes to support colonial species such as house sparrow. Woodcrete bird boxes (Schwegler, 2011) are recommended as they are long lasting compared to wooden boxes, insulate occupants from extremes of temperature and condensation and are available in a broad range of designs.

Lighting

4.30 Lighting has the potential to impact a wide range of species groups, including but not limited to, bats. Increasing levels of lighting can cause significant changes in animal behaviour for example causing species to move away from suitable foraging areas and affecting their use of movement corridors and existing resting sites. It is important that the use of lighting associated with the site is carefully considered to ensure that the impacts on wildlife are minimised.

4.31 In order to minimise indirect impacts from lighting associated with development it is recommended to limit light spillage and glare. This can be achieved by following accepted best practice (Fure, 2006; Institute of Lighting Engineers, 2009; Jones, 2000):

- The level of artificial lighting including flood lighting should be kept to a minimum;
- Where this does not conflict with health and safety and/or security requirements, the site should be kept dark during peak bat activity periods (0 to 1.5 hours after sunset and 1.5 hours before sunrise);
- 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;
- LED or 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; and

- Artificial lighting should not directly illuminate any potential bat roosting features, confirmed roost access point or habitats of value to commuting/foraging bats. Similarly, any newly planted linear features should not be directly lit.

Stag beetle habitat

4.32 The mature trees on site may provide a source of deadwood for stag beetles. Deadwood was found on the floor of the woodland and introduced shrubs were located in beds comprising wood chippings. It is recommended that, where possible, these are all retained, and that new habitat is created using the material from any trees that are due to be removed. 'Log pyramids' can be created by partially burying logs in the soil, sited in partial shade. For more advice on creating habitat for stag beetle, see the People's Trust for Endangered Species website <http://ptes.org/get-involved/wildlife-action/help-stag-beetles/>

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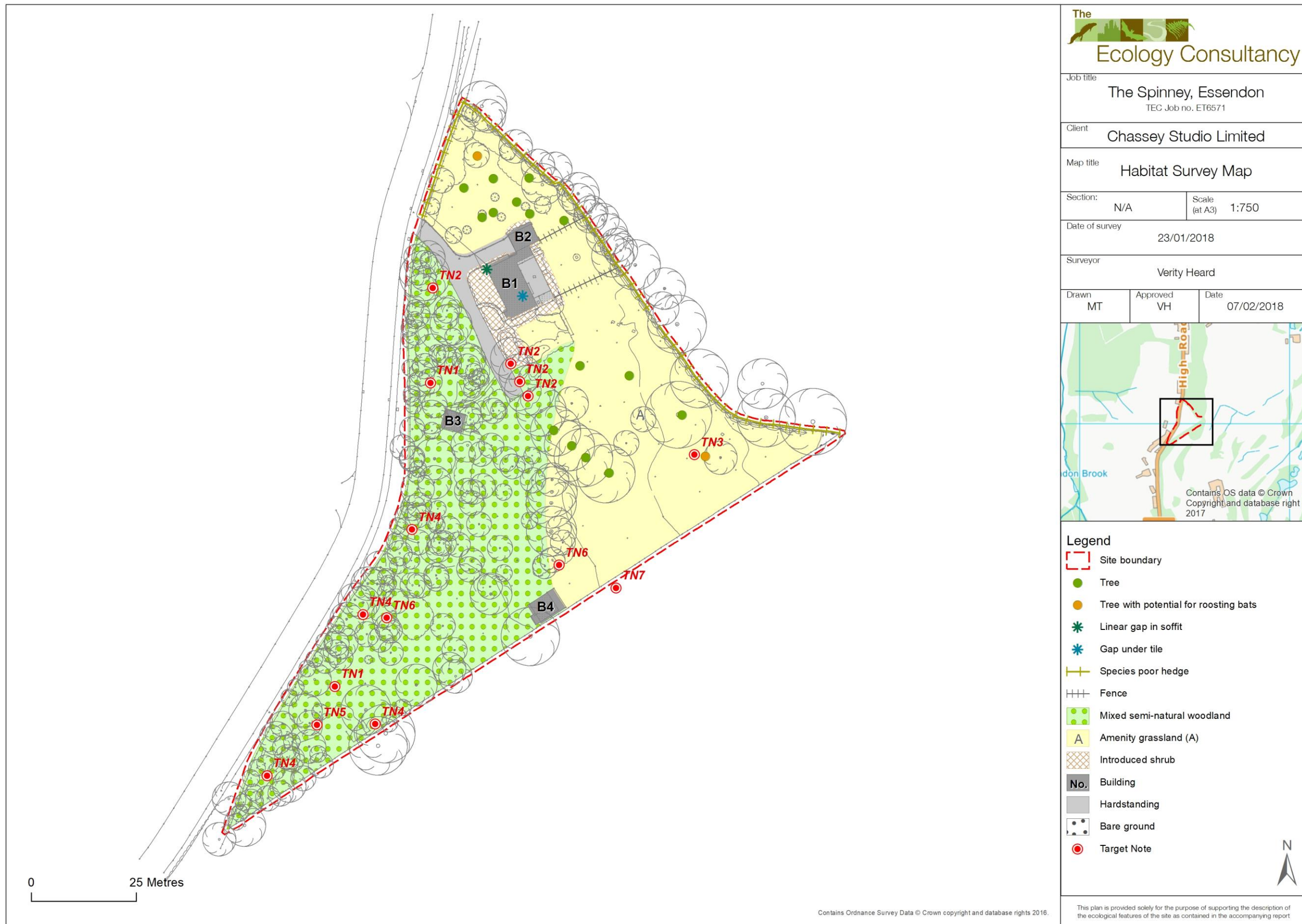
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Appendix 1: Habitat Map

Figure 1: Habitat Survey Map



Appendix 2: Desk Study

Table 1: Non - statutory sites within a 2km radius of the site.

Site Name	Reason for designation	Area (ha)	Distance from site (m)
Local Wildlife Sites			
St Mary's Church, Essendon	Building and environs important for protected species.		200
Backhouse Wood	Ancient semi-natural pedunculate oak, hornbeam coppice-with-standards woodland with wild cherry and silver birch and some broadleaved planting. ash and hazel coppice are locally frequent. The ground flora supports ancient woodland indicators including bluebell, yellow archangel, dog's mercury, wood meadow-grass and remote sedge. A stream crosses the site.	7.59	360
Essendon Glebe Meadow	Old pasture with semi-improved neutral grassland. Species recorded include the grasses meadow foxtail, Yorkshire fog, creeping bent, red fescue and sweet vernal-grass and the herbs pignut, meadow vetchling, meadow buttercup and bulbous buttercup. A small pond partly shaded by a sycamore is present along the southern edge.	1.47	450
Ox Wood	Ancient semi-natural pedunculate oak/ hornbeam woodland with bluebell. Further south there is a scots pine plantation and at the very southern end a large pit and elder are present. Shrubs, notably spindle, are numerous within the conifer plantation. The boundary partly supports hedges of blackthorn or coppiced hornbeam.	4.40	510
Essendon Brook Pasture	Old semi-improved neutral grassland bisected by the Essendon Brook supporting a good range of grass and herb species such as red fescue and creeping soft-grass plus several indicator species including sweet vernal-grass, field wood-rush, meadow vetchling, lady's bedstraw, common sorrel and common knapweed.	4.77	610
Grassland S. of Essendon Pinetum	Old unimproved neutral to slightly acidic grassland with a moderately species-rich sward often dominated by red fescue plus a good diversity of indicator species such as pignut, Bird's-foot trefoil, lady's bedstraw, field wood-rush and meadow vetchling. The presence of Hairy Sedge and lady's smock indicate some damper soils.	2.56	620
Meadow at Essendon Place	Unimproved species-rich neutral grassland with scattered trees, mainly of pedunculate oak and invading mixed species scrub. Many indicator species have been recorded including agrimony, sweet vernal-grass, common knapweed, pignut, lady's bedstraw and bird's-foot trefoil. A small stream crosses the site and is lined with shrubs and trees of hornbeam, lime and conifers with some woodland flora.	11.82	660

Bedwell Chalk Quarry	Rough chalk grassland with much invading scrub on a remnant area of old chalk pit. The chalky soils provide rich conditions for a wide diversity of herbs, with species recorded such as common centaury, common eyebright, hairy St John's-wort, pyramidal orchid, common spotted-orchid and ploughman's Spikenard. Of particular note are the records of the scarce plant Chiltern Gentian.	4.99	750
Larkinhill Grove	Small fragment of ancient semi-natural Oak and Hornbeam coppice-with-standards woodland with some ash plus coppice of hazel and field maple. The ground flora supports abundant Bluebell and frequent Dog's mercury along with other indicator species such as pignut, wood melick, wood meadow-grass and Hairy-brome. The wood is largely surrounded by a boundary bank with some old field maple and hawthorn and a small pond is present in the north of the wood.	0.66	900
Pasture W. of Essendon Place	Old herb-rich semi-improved neutral grassland supporting a sward mostly of fine grasses with a varied herb community. A small spring source is present which creates some wet ground.	5.47	920
Berkhamsted Lane Plantation	Ancient semi-natural oak/hornbeam woodland and old secondary estate planting. In the shrub layer species include elder, hawthorn, holly and hazel. The ground flora supports a good diversity of species including several woodland indicators such as dog's mercury, bluebell, wood meadow-grass and wood anemone. Remnant hedge and wood banks are present along with streams, ditches, ponds, rides and small glades, which all add to the habitat diversity.	28.89	990
Long Wood (Essendon)	Ancient semi-natural pedunculate oak /hornbeam coppice-with-standards woodland with frequent Ash standards. There is some old Hazel coppice at the north end and down the west side The ground flora supports woodland indicators and is dominated by Bluebell with frequent yellow archangel. Several small streams occur within the wood and there are boundary bank remnants supporting old hornbeam or field maple.	2.08	1100
Harefield Wood Green Lane	Green lane with substantial hedges and trees supporting a good diversity of woody species. The ground flora includes hairy-brome, bluebell, yellow archangel, Dog's mercury and wood meadow-grass. To the south-east there is a linking, banked, hedgerow supporting more abundant hornbeam and Bluebell.	1.17	1100
Meadow at Howe Green South	Semi-improved neutral grassland with a moderate diversity of grasses and herbs including several indicator species. Plants recorded include lady's smock, field wood-rush, common sorrel and meadow buttercup. The site is bordered by trees and shrubs and there is one large pedunculate oak within the field.	0.54	1150
Essendon Place Farm Meadow	Old pasture supporting semi-improved neutral grassland. The sward typically contains species such as meadow foxtail, Yorkshire fog, creeping bent and red fescue. Several pedunculate oak are present.	4.48	1190

Veteran trees nr Ashfield Farm	Numerous scattered veteran trees along path and within field. Mainly pedunculate Oak trees with hollows.	0.70	1260
Furze Field Wood East	Ancient semi-natural Pedunculate Oak Hornbeam coppice-with-standards woodland. The ground flora is typically sparse but several woodland indicator species have been recorded including Bluebell, wood sedge, broad buckler-fern and wood meadow-grass.	2.28	1320
Wood by Belvedere Farm	Ancient streamside woodland composed predominantly of Hornbeam coppice and standards with some large Pedunculate Oak. To the south is a larger area of Hornbeam coppice. The ground flora is reasonably diverse, particularly along the brook, and supports woodland indicators. Pendulous Sedge is occasional along the watercourse (Essendon Brook) which is deeply incised in places. An old double bank feature (an old trackway) is present along the west edge in the northern part of the site.	2.61	1480
Bath Wood	Old plantation dominated by mature sycamore with some remnants of Hornbeam woodland. A small watercourse (Wildhill Brook) bordered by scattered Hornbeams bisects the wood.	4.03	1510
Woodland E. of Deeves Wood	Small fragment of ancient semi-natural broadleaf woodland with hornbeam) and occasional pedunculate oak. Hornbeam present as standards, stubs and pollards. The ground flora supports a number of woodland indicators, predominantly bluebell with some dog's mercury and yellow archangel.	0.29	1540
Deeve Wood/Pope's Pondholes	Ancient semi-natural pedunculate oak, Hornbeam woodland. The majority of the wood has been replanted, mostly with hybrid black poplar and pine but remnant coppice of hornbeam and other species, including field maple and hazel with occasional pedunculate oak standards are present.	10.26	1550
Breach Lane and Stream Course	Old green lane and a network of wooded streams with a good diversity of trees and shrubs. Some of the trees alongside the stream and part of the lane are ancient in character, including old contorted coppices, pollards and standards of Hornbeam. The green lane is partly bordered by hawthorn hedges with some pedunculate oak and ash and areas of scrub and tall ruderals. A small block of secondary Pedunculate Oak woodland is also present.	1.59	1550
Grassland and Track E. of Deeves Wood	Remnant green lane lined with trees and shrubs with an area of species-rich damp grassland at the western end. The grassland has much bramble along with species such as ragged robin, Meadow Saxifrage, meadow vetchling and marsh thistle.	0.53	1580
Spring Wood (near Howe Green)	Broadleaved woodland alongside the River Lea with remnant, possibly ancient, semi-natural pedunculate oak/ hornbeam coppice. A spring source is present towards the northern end.	8.38	1640

Wood S. of Harefield Wood	Ancient semi-natural woodland with pedunculate oak, hornbeam and ash standards with some hornbeam coppice, hazel and elm scrub. The ground flora supports several woodland indicators including bluebell, dog's mercury and wood meadow-grass. Several very large horse-chestnuts are present in the north-east and the margin is partly bordered by old banks.	1.32	1670
Culver Wood	Ancient semi-natural pedunculate oak/hornbeam woodland composed of predominantly hornbeam with some pedunculate oak and silver birch. Within the western margin a stream lies in a narrow valley with adjacent wet areas and scrub of elder plus crack willow and ash. The ground flora is typically sparse but a good number of woodland indicators have been recorded including bluebell, dog's mercury, remote sedge, yellow archangel, giant fescue, wood meadow-grass, primrose and common dog-violet.	2.54	1720
Meadow and Spring near the Rectory	Old neutral to slightly acidic grassland with a fine sward supporting a good diversity of grasses and herbs such as bird's-foot trefoil, yarrow, common knapweed, meadow buttercup, field wood-rush and common sorrel. There is also a small spring-fed pond in the north-east corner.	0.66	1730
Pather's Wood	Ancient semi-natural hornbeam coppice. The ground flora supports woodland indicators. An incised watercourse (Essendon Brook) is present within the south-west edge of the wood.	2.28	1760
Little Berkhamsted House Meadow	A series of grasslands supporting a moderately diversity of grasses and herbs. The grassland is predominantly neutral in character but becomes more acidic on higher ground to the south. A spring-fed pond and associated ditches is present with an aquatic community.	7.84	1780
Cole Green Way	Disused railway route supporting linear secondary woodland and scrub on either side of steep embankments. The banks have been colonised by Pedunculate Oak, ash, sycamore, hawthorn, blackthorn, field maple and Bramble. Thin strips of grasses and herbs border the central track and larger open areas of more species-rich grassland occur in places.	9.35	1920
Home Wood N. of Wildhill	Ancient semi-natural pedunculate oak, hornbeam woodland, including coppice, with some ash standards. Elder is dominant in the shrub layer. The ground flora supports woodland indicators dominated by Bluebells with additional species such as Dog's mercury, broad buckler-fern and yellow archangel.	7.06	1960
Greater Captain's & Howell Park Wood	Remnant of a much larger ancient semi-natural pedunculate oak /hornbeam woodland. The remaining woodland is dominated by silver birch together with some pedunculate oak, ash and hornbeam standards plus coppice. Hazel coppice is also present. There has been some recent replanting to the north-east part. The ground flora supports frequent Bluebell and wood anemone and areas of Bracken.	7.96	1990

Appendix 3: Photographs

Photograph 1

Building 1 in the north of the site. View facing north east.



Photograph 2

Building 1 with a linear gap between the soffit box and fascia box.



Photograph 3

Ivy clad Building 2 in the north of the site. View facing west.



Photograph 4
Building 3 in the west of the site.



Photograph 5
Building 4 in the south of the site.



Photograph 6
Introduced shrub, hardstanding and Building 1 in the north of the site. View facing south.



Photograph 7
Bird boxes on scattered trees
in the centre of the site. View
facing south.



Photograph 8
Amenity grassland and
scattered trees in south east
of the site. View facing north.



Photograph 9
Mature lime tree in the centre
of the site with a rot hole
(circled in red).



Photograph 10

Non-native species poor hedgerow along the eastern boundary of the site. View facing south.



Photograph 11

Mammal hole in the south west of the site.



Photograph 12

Mammal hole off site, adjacent the southern boundary. View facing south.



Photograph 13

An example 'hedgehog highway' allowing site to site connectivity for hedgehogs and other small mammals to forage and commute across the landscape.



Appendix 4: Plant Species List

Plant Species List for The Spinney, Essendon compiled from Phase 1 habitat survey carried out on 23 January 2018.

Scientific nomenclature and common names for vascular plants follow Stace (2010) and Blockeel & Long (1998) for bryophyte species. Please note that this plant species list was generated as part of a Phase 1 habitat survey, does not constitute a full botanical survey and should be read in conjunction with the associated results section of this PEA.

Abundance was estimated using the DAFOR scale and additional notes taken as follows:

D = dominant, A = abundant, F = frequent, O = occasional, R = rare, L = locally
c=clumped, e=edge only, g=garden origin, p=planted, y = young, s=seedling or sucker,
t=tree, h=hedgerow, w=water

Latin Name	Common name	Abundance	Qualifiers
<i>Prunus laurocerasus</i>	Cherry laurel	LD	
<i>Ilex aquifolium</i>	Holly	O	t
<i>Euonymus sp.</i>	Spindle	O	p
<i>Cotoneaster sp.</i>	Cotoneaster species	O	p
<i>Buxus sempervirens</i>	Box	O	
<i>Mahonia sp.</i>	Barberry	F	p
<i>Aucuba japonica</i>	Spotted laurel	LD	
<i>Photinia</i>	Christmas berry	F	
<i>Skimmia sp</i>	Skimmia species	F	
<i>Camellia sp.</i>	Camelia	O	, g
<i>Quercus robur</i>	Common oak	A	
<i>Tillia x europaea</i>	Common Lime	A	t
<i>Acer pseudoplatanus</i>	Sycamore	F	t
<i>Fagus sylvatica</i>	Beech	O	t
<i>Ilex aquifolium.</i>	Holly	O	t
<i>Chamaecyparis lawsoniana,</i>	Lawson cypress	O	t
<i>Hedera helix</i>	Ivy	D	t
<i>Crataegus monogyna</i>	Hawthorn	O	t
<i>Carpinus betula</i>	Hornbeam	O	t
<i>Prunus avium</i>	Wild cherry	LA	t
<i>Betula pendula,</i>	Silver birch	O	t
<i>Morus alba</i>	White Mulberry	R	t
<i>Quercus ilex.</i>	Holm oak	O	t
<i>Taxus baccata</i>	Yew	O	t
<i>Rhododendron</i>	Rhododendron	O	

<i>Galanthus,</i>	Snowdrops	O	
<i>Dryopteris sp</i>	Fern	O	
<i>moss sp</i>	Moss	LD	

Appendix 5: Target Notes

Target Notes List The Spinney, Essendon from the Phase 1 habitat survey and protected and notable species assessment carried out on the 23 January 2018.

Target note (TN)	Description
1	Garden waste/ Compost piles/Deadwood
2	Bird boxes
3	Veteran tree
4	Snuffle holes
5	Log piles
6	Mole hills
7	Mammal hole

Appendix 6: Legislation and Planning Policy

Important notice: This section contains details of legislation and planning policy applicable in Britain only (i.e. not including the Isle of Man, Northern Ireland, the Republic of Ireland or the Channel Islands) and is provided for general guidance only. While every effort has been made to ensure accuracy, this section should not be relied upon as a definitive statement of the law.

A NATIONAL LEGISLATION AFFORDED TO SPECIES

The objective of the EC Habitats Directive¹⁴ is to conserve the various species of plant and animal which are considered rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (as amended) (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) is a key piece of national legislation which implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection obligations of Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Since the passing of the Wildlife & Countryside Act 1981, various amendments have been made, details of which can be found on www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CRoW) Act (2000).

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991;
- Countryside and Rights of Way (CRoW) Act 2000;
- Natural Environment & Rural Communities (NERC) Act 2006;
- Protection of Badgers Act 1992;
- Wild Mammals (Protection) Act 1996.

Species and species groups that are protected or otherwise regulated under the aforementioned domestic and European legislation, and that are most likely to be affected by development activities, include herpetofauna (amphibians and reptiles), badger, bats, birds,

¹⁴ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora

dormouse, invasive plant species, otter, plants, red squirrel, water vole and white clawed crayfish.

Explanatory notes relating to species protected under The Conservation of Habitats and Species Regulations 2010 (as amended) (which includes smooth snake, sand lizard, great crested newt and natterjack toad), all bat species, otter, dormouse and some plant species) are given below. **These should be read in conjunction with the relevant species sections that follow.**

- In the Directive, the term ‘deliberate’ is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.
- The Conservation of Habitats and Species Regulations 2010 (as amended) does not define the act of ‘migration’ and therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered.
- In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three ‘tests’: i) the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment; ii) that there is no satisfactory alternative and iii) that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

Bats

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species as:
 - a) to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young;
 - (ii) to hibernate or migrate³
 - b) to affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

Bats are also currently protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

How is the legislation pertaining to bats liable to affect development works?

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Though there is no case law to date, the legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded de facto protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost¹⁵.

Birds

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the Wildlife and Countryside Act 1981 (as amended). Among other things, this makes it an offence to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy an egg of any wild bird:

¹⁵ Garland & Markham (2008) Is important bat foraging and commuting habitat legally protected? Mammal News, No. 150. The Mammal Society, Southampton.

- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.

Certain species of bird, for example the barn owl, black redstart, hobby, bittern and kingfisher receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC). This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young;
- Intentional or reckless disturbance of dependent young of such a bird.

How is the legislation pertaining to birds liable to affect development works?

To avoid contravention of the Wildlife and Countryside Act 1981 (as amended), works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird breeding season which typically runs from March to August¹⁶. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Those species of bird listed on Schedule 1 are additionally protected against disturbance during the breeding season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Herpetofauna (Amphibians and Reptiles)

The sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita* and great crested newt *Triturus cristatus* receive full protection under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2. The pool frog *Pelophylax lessonae* is also afforded full protection under the same legislation. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of species listed on Schedule 2

¹⁶ It should be noted that this is the main breeding period. Breeding activity may occur out with this period (depending on the particular species and geographical location of the site) and thus due care and attention should be given when undertaking potentially disturbing works at any time of year.

- Deliberate disturbance of any Schedule 2 species as:
 - a) to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young;
 - (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate
 - b) to affect significantly the local distribution or abundance of the species
- Deliberate taking or destroying of the eggs of a Schedule 2 species
- Damage or destruction of a breeding site or resting place
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

With the exception of the pool frog, these species are also currently listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of herpetofauna are protected solely under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). Species such as the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis* are listed in respect to Section 9(1) & (5). For these species, it is prohibited to:

- Intentionally (or recklessly in Scotland) kill or injure these species
- Sell, offer or expose for sale, possess or transport for purpose of sale these species, or any part thereof.

Common frog *Rana temporaria*, common toad *Bufo bufo*, smooth newt *Lissotriton vulgaris* and palmate newt *L. helveticus* are listed in respect to Section 9(5) only which affords them protection against sale, offering or exposing for sale, possession or transport for the purpose of sale.

How is the legislation pertaining to herpetofauna liable to affect development works?

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect the breeding sites or

resting places of those amphibian and reptile species protected under The Conservation Habitats and Species Regulations 2010 (as amended). A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the Wildlife and Countryside Act 1981 (as amended).

Invasive Plant Species

Certain species of plant, including Japanese knotweed *Fallopia japonica*, giant hogweed *Heracleum mantegazzianum* and Himalayan balsam *Impatiens glandulifera* are listed on Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) in respect to Section 14(2). Such species are generally non-natives whose establishment or spread in the wild may be detrimental to native wildlife. Inclusion on Part II of Schedule 9 therefore makes it an offence to plant or otherwise cause these species to grow in the wild.

How is the legislation pertaining to invasive plants liable to affect development works?

Although it is not an offence to have these plants on your land per se, it is an offence to cause these species to grow in the wild. Therefore, if they are present on site and development activities (for example movement of spoil, disposal of cut waste or vehicular movements) have the potential to cause the further spread of these species to new areas, it will be necessary to ensure appropriate measures are in place to prevent this happening prior to the commencement of works.

Wild Mammals (Protection) Act 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to:

- Mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

B NATIONAL AND EUROPEAN LEGISLATION AFFORDED TO HABITATS

Statutory Designations: National

Nationally important areas of special scientific interest, by reason of their flora, fauna, or geological or physiographical features, are notified by the countryside agencies as statutory **Sites of Special Scientific Interest** (SSSIs) under the National Sites and Access to the Countryside Act 1949 and latterly the Wildlife & Countryside Act 1981 (as amended). As well as underpinning other national designations (such as **National Nature Reserves** which are declared by the countryside agencies under the same legislation), the system also provides statutory protection for terrestrial and coastal sites which are important within a European context (Natura 2000 network) and globally (such as Wetlands of International Importance). See subsequent sections for details of these designations. Improved provisions for the protection and management of SSSIs have been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales).

The Wildlife & Countryside Act 1981 (as amended) also provides for the making of **Limestone Pavement Orders**, which prohibit the disturbance and removal of limestone from such designated areas, and the designation of **Marine Nature Reserves**, for which byelaws must be made to protect them.

Statutory Designations: International

Special Protection Areas (SPAs), together with **Special Areas of Conservation** (SACs) form the **Natura 2000** network. The Government is obliged to identify and classify SPAs under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds). SPAs are areas of the most important habitat for rare (listed on Annex I of the Directive) and migratory birds within the European Union. Protection afforded SPAs in terrestrial areas and territorial marine waters out to 12 nautical miles (nm) is given by The Conservation of Habitats & Species Regulations 2010 (as amended). The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SPAs in UK offshore waters (from 12-200 nm).

The Government is obliged to identify and designate SACs under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora). These are areas which have been identified as best representing the range and variety of habitats and (non-bird) species listed on Annexes I and II to the Directive within the European Union. SACs in terrestrial areas and territorial marine waters out to 12 nm are protected under The Conservation of Habitats & Species Regulations 2010 (as amended). The

Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SACs in UK offshore waters (from 12-200 nm).

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and wise use, in particular recognizing wetlands as ecosystems that are globally important for biodiversity conservation. Wetlands can include areas of marsh, fen, peatland or water and may be natural or artificial, permanent or temporary. Wetlands may also incorporate riparian and coastal zones adjacent to the wetlands. Ramsar sites are underpinned through prior notification as Sites of Special Scientific Interest (SSSIs) and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CROW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. This effectively extends the level of protection to that afforded to sites which have been designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs).

Statutory Designations: Local

Under the National Sites and Access to the Countryside Act 1949 **Local Nature Reserves** (LNRs) may be declared by local authorities after consultation with the relevant countryside agency. LNRs are declared for sites holding special wildlife or geological interest at a local level and are managed for nature conservation, and provide opportunities for research and education and enjoyment of nature.

Non-Statutory Designations

Areas considered to be of local conservation interest may be designated by local authorities as a **Wildlife Site**, under a variety of names such as **County Wildlife Sites** (CWS), **Listed Wildlife Sites** (LWS), **Local Nature Conservation Sites** (LNCS), **Sites of Biological Importance** (SBIs), **Sites of Importance for Nature Conservation** (SINCs), or **Sites of Nature Conservation Importance** (SNCIs). The criteria for designation may vary between counties.

Together with the statutory designations, these are defined in local and structure plans under the Town and Country Planning system and are a material consideration when planning applications are being determined. The level of protection afforded to these sites through local planning policies and development frameworks may vary between counties.

Regionally Important Geological and Geomorphological Sites (RIGS) are the most important places for geology and geomorphology outside land holding statutory designations such as SSSIs. Locally-developed criteria are used to select these sites, according to their value for education, scientific study, historical significance or aesthetic qualities. As with local Wildlife Sites, RIGS are a material consideration when planning applications are being determined.

C NATIONAL PLANNING POLICY

The National Planning Policy Framework (NPPF)

The National Planning Policy Framework (NPPF) replaced Planning Policy Statement (PPS9) in April 2012 as the key national planning policy concerning nature conservation. The NPPF emphasises the need for suitable development. The Framework specifies the need for protection of designated sites and priority habitats and priority species. An emphasis is also made for the need for ecological networks via preservation, restoration and re-creation. The protection and recovery of priority species – that is those listed as UK Biodiversity Action Plan priority species – is also listed as a requirement of planning policy. In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from adverse harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and The Biodiversity Duty

The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 40 of the Act requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the ‘biodiversity duty’.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of ‘principal importance for the conservation of biodiversity.’ They are referred to in this report as Species of Principal Importance and Habitats or Principal Importance. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

D LOCAL PLANNING POLICY

WELWYN HATFIELD DISTRICT COUNCIL'S ADOPTED CORE STRATEGY

Core Strategy Policy R11- Biodiversity and development

All new development will be required to demonstrate how it would contribute positively to the biodiversity of the site by;

- The retention and enhancement of the natural features of the site;
- The promotion of natural areas and wildlife corridors where appropriate as part of the design;
- The translocation of habitats where necessary, where it can be demonstrated that the habitat or species concerned cannot be successfully accommodated within the development;
- The use of locally native species in planting in accordance with Policy D8 Landscaping;
- Helping meet priorities/targets set out in the Local Biodiversity Action Plan.

PPG9 Nature Conservation identifies different levels of protection for sites of varying importance for biodiversity, for example European and National statutory sites such as Special Areas of Conservation (SAC), Special Protection Areas (SPAS), National Nature Reserves, Sites of Special Scientific Interest (SSSIs) and Local Nature Reserves and non statutory locally designated sites such as County Wildlife Sites. PPG 9 recognises that local and informal designations form part of a habitat network which helps to retain local biodiversity, but designation should only be for sites of substantive local value. Sites of International Importance 5.37

The district contains a small part of the Wormley-Hoddesdon Park Woods candidate Special Area of Conservation (SAC), which is identified on the Proposals Map. This designation is intended to protect the habitat of threatened species of wildlife. In accordance with PPG 9 development proposals for a candidate SAC will be treated in the same way as if it had already been designated.

F REGIONAL AND LOCAL BAPS

Many local authorities in the UK have also produced a local Biodiversity Action Plan (LBAP) at the County or District level. The UK plan also encourages the production of local

Biodiversity Action Plans at the County or District level. There are 17 Hertfordshire BAP Species and 7 broad Hertfordshire BAP Habitats with specific Habitat Action Plans (HAPs). Specific HAPs and SAPs, which are of potential relevance to this site include:

Habitats

- Urban
- Woodland

Species

- House Sparrow
- Song thrush
- Dormouse
- Stag beetle
- Great crested newt



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