temple

Creating sustainable futures

Leonardslee House, Leonardslee Lakes and Gardens

Preliminary Ecological Appraisal and Preliminary Roost Assessment

Report for Leonardslee Lakes and Gardens

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Contents

Executive Summary

Temple was commissioned in November 2022 by Leonardslee Lakes and Gardens to carry out a Preliminary Ecological Appraisal (PEA) and a Preliminary Roost Assessment (PRA), comprising a UK habitat survey (UKHabs), protected species assessment, bat roost assessment and ecological evaluation of Leonardslee House, Leonardslee Lakes and Gardens, Lower Beeding, West Sussex (henceforth referred to as 'the Site'). The PEA and PRA are required as a baseline assessment to inform any future proposals to Leonardslee House.

The main findings are as follows:

- The Site is located within the grounds of Leonardslee Lakes and Gardens, a 97ha Grade I listed garden, comprising lakes, a vineyard and associated buildings. The Site comprised Leonardslee House, a Georgian Grade II listed building with associated patio space, landscaping, outbuildings and basement.
- The Site is not subject to any international important wildlife sites, and none are located within a 15km radius of the proposed development Site. The Site however, falls within the St Leonards watershed Biodiversity Opportunity Area (BOA). The Site sits within an area that is classified as Wood-pasture and Parkland Habitat of Principal Importance (HPI).
- **Roosting and foraging/ commuting bats –** Leonardslee House is a confirmed roost following surveys undertaken in 2017. Therefore, any future works may need to proceed under a Mitigation Licence from Natural England depending on the likely impacts to bats following the results of an emergence and/or dawn re-entry surveys undertaken using the most current survey methodology at the time. The Site has good connectivity to suitable habitats for foraging and commuting bats.
- **Breeding birds -** The buildings could potentially support breeding birds. Should any active birds' nest be discovered during the works, all works must stop, the nest must be left in situ and a suitable buffer be established around the nest until chicks have fledged or the breeding attempt complete.

- **Invasive plants -** Rhododendron, a schedule 9 invasive plant, was found to be present on site. It is an offense to allow the spread of this species to any off-site habitats and mitigation has been recommended in Section 4 of this report.

Where possible on the basis of information available to date, recommendations to enhance the importance of the Site for biodiversity in accordance with the Environment Act 2021 and national and local planning policies, have been provided. As the proposals are part of a wider set of ongoing developments within the wider Leonardslee estate, it is recommended that an enhancement plan for the whole estate is produced which incorporates the enhancements of each development. This will include a wildlife planting scheme and grassland diversity enrichment to enhance biodiversity for net-gain as well as dark-sky friendly lighting provision of nesting opportunities and inclusion of log piles where possible.

1 Introduction

BACKGROUND TO COMMISSION

1.1 Temple was commissioned by Leonardslee Lakes and Gardens in November 2022 to carry out a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) of the existing Leonardslee House at Leonardslee Lakes and Gardens, Lower Beeding, West Sussex. There are currently five small developments being undertaken within the wider Leonardslee Lakes and Gardens estate. This appraisal considers land within the Site boundary (henceforth referred to as 'the Site') as indicated on the maps provided in appendix 1 below.

1.2 Temple, formerly The Ecology Consultancy, undertook surveys of land within seven areas and 11 buildings to reopen Leonardslee Lakes and Gardens and modernise a number of existing buildings on Site. A Preliminary Roost Assessment undertaken in 2017 of Leonardslee House recorded a scattering of brown long eared droppings; however, subsequent dusk emergence and dawn re-entry surveys didn't record any bats emerging or re-entering the building. Based on the number of droppings and the results of the further surveys, Leonardslee House was considered to be an occasional summer day roost used by low numbers of bats (The Ecology Consultancy, 2017).

SCOPE OF THE REPORT

1.3 The aim of this appraisal is to provide baseline ecological information about the Site. This will be used to identify any potential ecological constraints 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 possible, this report outlines any avoidance, mitigation, compensation and enhancement measures as may be required to ensure compliance with legislation and policy. Although enhancement measures may be used to achieve a net gain in biodiversity in line with national and local planning

policies, this does not comprise a formal Biodiversity Net Gain assessment and no metric calculations have been made.

1.4 This appraisal is based on the following information sources:

- a desk study of the Site and land within a 2km surrounding radius;
- a search for internationally important wildlife sites within a 15km surrounding radius;
- a UK Habitat Classification survey (UK Habitat Classification Working Group, 2018) of the Site to identify and map the habitats present;
- a Species Assessment of the Site to identify features with potential to support legally protected and/or notable species including those defined by Section 41 of the NERC Act 2006 as Species of Principal Importance;
- A Preliminary Roost Assessment (PRA) of Leonardslee House on site for roosting bats and nesting birds;
- an evaluation of the Site's importance for nature conservation.

1.5 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).

1.6 The survey, assessment and report were conducted by Francesca West BSc (Hons) MRes an experienced ecologist with eight years' experience who is trained and competent in carrying out UK Habitat surveys and Preliminary Roost Assessments as an Accredited Agent under licence number 2019-41253-CLS-CLS. Francesca was assisted by Maisie Worthington BSc (Hons), an experienced ecologist with five years' experience who is trained and competent in carrying out UK Habitat surveys and protected species assessments.

1.7 Maps of the Site are presented in Appendix 1 with a botanical species list of plants recorded in Appendix 2. Photographs of the site are presented in Appendix 3 and Habitat Condition Assessment forms (in accordance with Panks *et al.,* 2022) are replicated in Appendix 4.

SITE CONTEXT AND STATUS

1.8 The Site is approximately 0.1ha in size and is centred on Ordnance Survey National Grid reference TQ 22179 25909. The majority of the Site comprised the northern section of the existing Leonardslee House and patio area. Leonardslee House in its entirety is used as a hotel spanning across two storeys with a restaurant on the ground floor. To the northeast of the patio was the single storey shed, which has been converted and is now used as storage. To the east of the patio area was a garden and areas of flower beds.

1.9 The Site was situated within Leonardslee Lakes and Gardens a 97ha Grade I Listed landscaped garden with large lakes, a vineyard, recreational facilities and areas of woodland that is open to visitors all year round. Leonardslee Lakes and Gardens comprises a steep sandstone valley and seven man-made lakes interconnected with woodlands, scrub and landscaped woodland gardens adjoining. Areas of Ancient & Semi-Natural Woodland, Ancient Replanted Woodland, Deciduous Woodland and Lowland Heathland are present within the wider Leonardslee Lakes and Gardens Estate. The Gardens are bordered by a busy 'A' road to the west, but the wider landscape stretching from the Estate boundary comprises areas of agricultural land bordered by hedgerows, woodland and residential properties. It lies in a rural area north of Crabtree, Lower Beeding and is within the Horsham District of West Sussex. Haywards Heath sits approximately 10km to the east and Horsham approximately 5km to the north-west.

DEVELOPMENT PROPOSALS

1.10 At this stage, there are no set proposals to develop the Site or the house. The scope of this report is to provide a baseline assessment of the house and outline the potential impacts of any further development.

RELEVANT LEGISLATION AND PLANNING POLICY

1.11 The following key pieces of nature conservation legislation are relevant to this appraisal. A more detailed description of legislation is provided in Appendix 5:

- The Conservation of Habitats and Species Regulations 2017 (as amended) (commonly referred to as the Habitats Regulations);
- Wildlife and Countryside Act 1981 (as amended);
- Natural Environment and Rural Communities Act 2006;
- Environment Act 2021;
- Protection of Badgers Act 1992; and
- Wild Mammals (Protection) Act 1996.

1.12 The National Planning Policy Framework (Department for Levelling Up, Housing and Communities, 2023) and Environment Act 2021 requires local authorities to avoid and minimise impacts on biodiversity and to provide net gains in biodiversity when taking planning decisions. In addition, in England, under Section 40 of the Natural Environment and Rural Communities Act 2006, all public bodies are required to have regard to biodiversity conservation when carrying out their functions.

1.13 Other planning policies at the local level of relevance to this development include the Horsham District Local Plan 2021- 2038 and The High Weald Area of Outstanding Natural Beauty (AONB) Management Plan 2019-2024.

NOMENCLATURE

1.14 A botanical species list, including scientific names in accordance with Stace (2019), is provided in Appendix 2. Common names of species, in accordance with the Natural History Museum Species Dictionary (Natural History Museum (2022), are used throughout this report with scientific names given at first mention only for fauna.

2 Methodology

DESK STUDY

2.1 The following data sources were reviewed to provide information on the location of statutory designated sites[1], non-statutory designated sites[2], legally protected species[3], Species and Habitats of Principal Importance[4], and other notable species[5] and habitats[6] that have been recorded within a 2km radius of the Site:

- Sussex Biodiversity Record Centre, the local Biological Records Centre, principally for species records and information on non-statutory sites;
- MAGIC (http://www.magic.gov.uk/) - the Government's on-line mapping service; and
- Ordnance Survey mapping and publicly available aerial photography.

2.2 A summary of key records provided by the desk study is presented in Section 3 of this report. All records have been used to inform the assessment of the potential for protected or otherwise notable species to be present at the Site to provide a preliminary view of the Site's ecological importance but these are not presented in full in the report.

1 **Statutory designations** include Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites (referred to collectively as National Site Network sites in England), 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 2017 (as amended); or in the Protection of Badgers Act 1992.

4 **Species/Habitats of Principal Importance** are those defined by 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 (Stanbury *et al.* 2021); 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.

PRELIMINARY ECOLOGICAL APPRAISAL - HABITAT SURVEY

2.3 A preliminary ecological appraisal was carried out at the Site on 30th of November 2022 in weather conditions of 8°C, 2/12 Beaufort scale wind, 9/8 (fog) okta cloud cover.

2.4 The survey covered the entire Site including boundary features. Habitats were described and mapped following standard UKHabs Classifications Version 1.1 (UK Habitat Classification Working Group, 2020) and marked on a paper base map and subsequently digitised using ESRI ArcGIS software. Habitats were also assessed against descriptions of Habitat of Principal Importance as set out by the UK Habitat Classification where appropriate.

2.5 As a formal Biodiversity Net Gain (BNG) assessment is required, UK Habitat Classifications Version 1.1, in use at the time of the survey (UK Habitat Classification Working Group, 2020) has been used for the purposes of calculating the preliminary baseline units. The condition of each of the applicable habitats present on Site has been recorded in line with the Biodiversity Net Gain 3.1 Technical Supplement which was relevant at the time of the survey (Panks *et al,*. 2022) with condition assessment forms presented in Appendix 5. A formal Biodiversity Net Gain assessment and metric calculations will be provided in a separate report.

2.6 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. The latter have been used to justify the potential presence of important ecological features where applicable.

2.7 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 locations on the habitat plan are indicative only.

PROTECTED AND INVASIVE SPECIES ASSESSMENT

2.10 The suitability of the Site for legally protected species was assessed on the basis of relevant desk study records[7] combined with field observations from the habitat survey. The likelihood of the habitat(s) supporting protected and/or notable species was ranked on a scale from 'negligible' to 'present' as described in Table 2.1.

2.11 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.

Table 2.1: Protected species assessment

Category	Description
Present	Presence confirmed by the current survey or by recent and/or desk study records.
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 some of the known key requirements for a given species/species group. Several desk study records and/or the Site are within known 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. 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. No desk study records. Surrounding habitat unlikely to support wider populations of a species/species group. Outside or peripheral to the known range of a species.

2.12 The findings of this assessment help establish the need for protected species surveys. Surveys may be required where a site is judged to be of suitability for a particular species/ species group even if that suitability is deemed to be Low - this is particularly the case where there the risk of contravening the relevant conservation

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

legislation is unknown or cannot be quantified on the basis of the information available. However, in some cases there may be opportunities to ensure compliance with the legislation without further survey through precautionary measures prior to and during construction.

PRELIMINARY ROOST ASSESSMENT – BUILDINGS

2.13 The PRA consisted of an external inspection of all features/surfaces of Leonardslee House and an internal inspection where access allowed. The survey and assessment were undertaken by Francesca West, MRes BSc (Hons), an experienced ecologist with eight years' commercial bat survey experience. Francesca was working as an accredited agent under licence number 2019-41253-CLS-CLS which allowed her to undertake the surveying of bats using artificial light (torches) and endoscopes but does not include the handling, or trapping of bats, or use of acoustic lures. Francesca was assisted by Maisie Worthington (BSc Hons), an experienced ecologist with five years' experience.

2.14 The aim of the surveys outlined below is to establish the suitability of Leonardslee House within the site to support bat roosts. The suitability of structures to support roosting bats, ranging from negligible to the presence of a confirmed roost, is assessed using the findings of the survey and the desk study. The following criteria were used to determine the suitability of the buildings for roosting bats (taken from guidance at the time of the survey, Collins, 2016):

- Negligible – While presence cannot be absolutely discounted there were no significant visible features that could be used by bats for roosting.
- Low – A structure with one or more potential roost sites that could be used by individual bats opportunistically; however, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain Potential Roost Features (PRFs) but with none seen from the ground or features seen with only very limited roosting potential.

- Moderate – A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
- High – A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
- Confirmed roost[8] – Evidence indicates a building or other structure is used by bats, for example:
    - bats seen roosting or observed flying from a roost or freely in the habitat;
    - droppings, carcasses and feeding remains indicative of a roost; and
    - bats heard 'chattering' inside on a warm day or at dusk.

2.15 The gathered information has been used to inform whether further survey is required in the form of dusk emergence and/or dawn re-entry surveys, in line with current guidelines (Collins, 2023), to fully understand how bats are using the site and the potential impacts of the proposals on bats, or whether an assessment can be made on the basis of the [building] inspection alone.

Internal and External Inspections

2.16 The PRA was carried out on the 30th November 2022 in weather conditions of 8°C, 2/12 Beaufort scale wind, 9/8 (fog) okta cloud cover and no rain.

[8] Adapted from Cowan, A. (2006) Trees and Bats. Guidance Notes 1. Arboricultural Association, Cheltenham

2.17 The survey comprised an external inspection of Leonardslee House, focussing on the northern section. This involved a detailed search of all accessible architectural features for bat droppings, urine staining, scratch marks, staining around suitable crevices and feeding remains. Windowpanes and other external surfaces were checked for droppings or other secondary evidence. This included external features, such as soffits and fascias, roof lining, brickwork and window casements. Any features that could potentially provide access into internal areas (such as cavity walls) were noted.

2.18 An internal inspection of the northern section of Leonardslee House and the basement beneath the existing patio area was completed. The surveyor walked through the interior of the building in logical progression. For the internal survey of Leonardslee House the surveyor entered the roof void above one of the guest rooms. For both the basement and the roof void of Leonardslee House, all surfaces, including floor areas, were checked for discarded feeding remains and bat droppings. A high-powered torch was shone along the interior of the roof, where appropriate, to look for bats, staining and droppings.

2.19 The survey methodology followed best practice guidelines at the time of the survey (Mitchell-Jones 2004; Collins, 2016). This guidance has now been superseded by Reason and Wray, 2023. Equipment used during the building inspection included an extendable ladder, close-focusing binoculars, a hand-held LED torch and a high-powered torch.

2.20 Finally, all buildings on Site were inspected for evidence of/potential for breeding and/or nesting birds.

SITE EVALUATION

2.21 Where sufficient baseline data are available, the Site's ecological importance has been evaluated broadly following guidance issued by CIEEM (CIEEM, 2018) which ranks the nature conservation importance of a site according to a geographic scale of reference: international, national, regional (England, South-East), metropolitan,

county, vice-county or other local authority-wide area (West-Sussex); and of importance at the zone of influence of the Site only. In evaluating the nature conservation importance of the Site, the following factors were considered: nature conservation designations; species/habitat rarity; naturalness; fragility and connectivity to other habitats. Where no importance has been assigned this is due to insufficient information.

2.22 An assessment of likely ecological impacts has been undertaken in accordance with CIEEM guidelines (CIEEM, 2018) only where clear evidence is available to substantiate and justify the findings. In the absence of such evidence, the ecological feature is merely identified as a potential constraint to development. Reference is also made to Section 6 of the Bat Mitigation Guidelines (Mitchell-Jones, 2004) and Natural England's standing advice and includes a summary of the scale of impact according to bat roost type and development effect, if known.

2.23 Where ecological constraints to development are identified, further survey requirements and/or mitigation measures that are proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development are described. In addition, in accordance with the Environment Act 2021, National Planning Policy Framework (NPPF) and local/regional planning policies, opportunities to enhance or create benefits for wildlife are provided where this is possible based on the information available to date. These measures may be appropriate for the attainment of net gains in biodiversity, although this assessment does not provide a formal measure of Biodiversity Net Gain. A formal BNG assessment will be undertaken for this Site and included within a subsequent report.

DATA VALIDITY AND LIMITATIONS

2.24 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 and potentially affected by the proposed development.

- 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 are 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 are accurate to the nearest 100m only.
- The UK Habitat classification survey does not constitute a full botanical survey or provide accurate mapping of invasive plant species. Furthermore the survey was undertaken in November, a sub-optimal time for plant growth so some species may not have been identified or accounted for during the survey.
- Bats are highly mobile animals and can move roost sites both within and between years. Where surveys are not spread throughout the bat active season is possible that roost sites that are used for a limited time only could be missed, and the detection of small numbers of crevice dwelling species from an inspection alone may remain problematic, particularly where droppings accumulate within an inaccessible void such as a cavity wall or above the roof lining. Where visible and undisturbed, however, evidence of bats inside a building is likely to be detectable throughout the year.
- Ecological survey data are typically valid for 12-18 months unless otherwise specified (CIEEM, 2019). Data used to support a bat mitigation licence application to Natural England must be from the most recent survey season;

depending on the timing of the application, this may mean from the same or previous year.

- The surveys were undertaken at the sub-optimal time of year for plant growth, during the winter months, so it is possible that species that flower earlier in the year may have been missed. However, the data from the habitat survey is sufficient to inform a baseline assessment.
- The surveyors were unable to gain access into some of the rooms within the basement. However, it was possible to gain an understanding of the building's accessibility via the external walkover and from what was recorded internally.
- During the internal survey of the roof void within the northern section of Leonardslee House, it was noted that the void floor was covered in debris and detritus so evidence of bats, such as droppings, could have been missed. However, as the building remains relatively in the same condition as when it was surveyed in 2017, its potential for roosting and likely presence of bats is likely to remain the same.

2.25 Despite these limitations, it is considered that this report accurately reflects the habitats present, their biodiversity importance and the potential of the Site to support protected and otherwise notable species.

3 Results and Evaluation

DESIGNATED SITES

Statutory designated nature conservation sites

3.1 The Site is not subject to any international or national statutory nature conservation designations. No internationally important sites are located within a 15km radius of the proposed development Site. No nationally designated sites are located within 2km of the Site.

3.2 See Appendix 1, Figure 2 and 3 for international and nationally designated sites map.

Non-statutory designated nature conservation sites

3.3 The Site is included within the Sussex Biodiversity Opportunity Area (BOA) strategy. A single non-statutory designated site, Old Deer Park Local Wildlife Site (LWS) is located within 2km of the Site (see Table 3.1). See Appendix 1, Figure 3 for local designated sites map.

Table 3.1: Non-Statutory Designated Site

Site Name	Distance from Site and orientation	Ecological Importance	Qualifying features/Description	Potential constraint
The St Leonards watershed Biodiversity Opportunity Area (BOA)	On site	Local	The St Leonards watershed has been recognised as a Biodiversity Opportunity Area (BOA) as it represents a priority area for the delivery of Biodiversity Action Plan (BAP) targets. It is one of 75 such areas across Sussex. The BOA covers approximately 4057 hectares.	No
Old Deer Park Local	100m east	Local	Old Deer Park is one of the best surviving relicts of St Leonard's Forest. There are	No

Site Name	Distance from Site and orientation	Ecological Importance	Qualifying features/Description	Potential constraint
Wildlife Site (LWS)			ancient parkland trees with a good lichen community, dry and wet heathland, and a bog that contains an assemblage of species no longer found in any other site in West Sussex. The most important area is the southern part of the parkland where the dry and wet heath and bog communities occur. The dry heath consists of a fine area of Heather Calluna vulgaris with Bell Heather Erica cinerea, Heath Bedstraw Galium saxatile, Tormentil Potentilla erecta, Green-ribbed Sedge Carex binervis, Heath-grass Danthonia decumbens and Mat-grass Nardus stricta. At least ten Cladonia species of lichen have been recorded, including one extremely rare species.	

Habitat inventories and landscape-scale conservation initiatives

Habitats of Principal Importance

3.4 There are 56 Habitats of Principal Importance (HPI) located within 2km of the Site (Natural England, 2022), namely Deciduous Woodland, Ancient Woodland, Wood-pasture and Parkland, Traditional Orchard, and Lowland Heathland. The Site sits within an area classified as Wood-pasture and Parkland HPI (Magic, 2023). There

are over 20 ancient or veteran trees within 2km of the wider Leonardslee Lakes and Gardens, but none on Site.

3.5 The Site is located within wood-pasture and parkland HPI but does not contain the characteristics of wood pasture and parkland.

Ancient woodland

3.6 80 areas of woodland within a 2km radius of the Leonardslee Lakes and Gardens estate, appear on the Ancient Woodland Inventory. The site lies 40m west of Ancient Replanted Woodland.

Data return for bat species

3.7 The data search returned 62 records of bats from within the past ten years from at least eight species and two species groups. Of these records, 16 were roosts and the remainder were field records. 13 roosts were recorded within 2km of the Site in the last ten years. Some of which were previously recorded within Leonardslee House, or adjacent buildings such as the Stable Block. There was also one historic record of a hibernation roost from 1992, within the Ice-House associated with Leonardslee House. Two historic mitigation licences were found within a 2km radius of the site. A summary of the results is presented in Tables 3.2 and 3.3.

Table 3.2: Summary of data search results

Species	Distance & Orientation	Date of most recent record	Description
Plecotus auritus Brown Long-eared Bat	On site	16/11/2017	The Manor House, Leonardslee Estate. Building inspection, unspecified roost
Myotis nattereri Natterer's Bat	On-site	15/02/1992	Ice-house, Leonardslee Gardens, Brighton Road, Lower Beeding. 1 bat present during hibernation survey
Plecotus auritus Brown Long-eared Bat	50m north	16/11/2017	The Stable Block, Leonardslee Estate, Building inspection, unspecified roost
Plecotus auritus Brown Long-eared Bat	115m northwest	20/06/2019	Leonardslee House & Gardens. One roosting in the building.

Plecotus auritus Brown Long-eared Bat	115m northwest	05/09/2019	Leonardslee House & Gardens. One bat emerged from building, unspecified roost
Plecotus auritus Brown Long-eared Bat	115m northwest	24/09/2019	Leonardslee House & Gardens. One bat emerged from building, unspecified roost
Pipistrellus pygmaeus Soprano Pipistrelle	115m northwest	25/09/2019	Leonardslee House & Gardens, one bat emerged from building, unspecified roost
Pipistrellus pygmaeus Soprano Pipistrelle	115m northwest	24/09/2019	Leonardslee House & Gardens, 1 bat emerged from building, unspecified roost
Pipistrellus pygmaeus Soprano Pipistrelle	115m northwest	05/09/2019	Leonardslee House & Gardens, four bats emerged from building, unspecified roost
Pipistrellus pipistrellus Common Pipistrelle	115m northwest	24/09/2019	Leonardslee House & Gardens, two bats emerged from building, unspecified roost
Pipistrellus pipistrellus Common Pipistrelle	115m northwest	05/09/2019	Leonardslee House & Gardens, two bats emerged from building, unspecified roost
Pipistrellus pygmaeus Soprano Pipistrelle	170m south	02/06/2020 - 04/08/2020	Maternity roost, surveyed over a number of dusk/dawns in 2020 plus hand netting in 2019. 2020 peak count of 286 bats.
Plecotus sp. Long-eared Bat species	415m south	13/03/2020	Maternity Roost
Pipistrellus pipistrellus Common Pipistrelle	1.9km northeast	01/07/2016	Maternity roost

Table 3.3: Bat mitigation licences within 2km of the site boundary

Licence Number	Distance & Orientation	Notes
EPSM2010-1637	1.6km southwest	Brown long ear, Common pip, Soprano pip. Licence was valid 10/03/2010 to 30/11/2010
2019-43870-EPS-MIT	1.6km southeast	Brown long ear, Common pip, Soprano pip, Whiskered bat Licence was valid 03/02/2020 to 30/01/2030

UK HABITAT CLASSIFICATION SURVEY

Site character

3.8 The Site sits centrally within Leonardslee Lakes and Gardens estate, comprising a sensitively managed Grade II listed House and garden which consists of buildings, lakes, ancient and semi-natural woodland and ancient replanted woodland. Leonardslee Lakes and Gardens sits within a rural landscape and is open to the public. The gardens are carefully managed and there is a high footfall around the estate, as the gardens are open to visitors year-round. The Leonardslee House operates as a hotel and wedding venue. Leonardslee House is a two-story Grade II listed building constructed of sandstone brick with a slate roof.

3.9 UKHabs types are mapped in Appendix 1, Figure 1 and areas are given in Table 3.3 and an assessment of habitat condition in accordance with the Biodiversity Net Gain 3.1 Technical Supplement which was the relevant metric at the time of the survey (Panks *et al,*. 2022).

3.10 A description of dominant and notable species and the composition of each habitat is provided below, with a species list (including all scientific names) provided in Appendix 2. Photographs are located in Appendix 3. The habitat condition forms are presented in full in Appendix 4.

Table 3.3: UK Habitat Classification Version 1.1

UKHab Primary Habitat (Area)	UKHab Secondary codes	Condition	Extent (Ha)
u1b5 Building	N/A	N/A	0.37
u1b Developed land; sealed surface	N/A	N/A	0.52
u1 Built-up areas and gardens	1140 Ground level planters 1150 Flower bed 1160 Introduced Shrub	N/A	0.23
		Total	1.13

UKHab Primary Habitat (Linear)	UKHab Secondary codes	Condition	Extent (m)
u1e Built linear feature	N/A	N/A	77
UKHab Primary Habitat (Trees)	**UKHab Secondary codes**	**Condition**	**No. of trees**
u1 Built-up areas and gardens	11 Scattered trees	Moderate	1
u1b Developed land; sealed surface	11 Scattered trees	Moderate	1

Habitat Description

u1b5 Buildings

3.11 The buildings on Site comprised the Leonardslee House, with wooden sheds adjacent to the north. Leonardslee House is a two-story building comprised of sandstone brick with a slate roof. The building had a basement. The shed to the north was a wooden clad building with bitumen felt roof.

u1b Developed land, sealed surface

3.12 An area of tarmac is immediately adjacent to the Leonardslee House entrance to the west and is currently in use as an area for cars to pull up to the house. An area laid with patio, is located to the south and east of the house and is currently used as an outside seating area.

u1 Built-up areas and gardens (230 – garden; 1150 – flower bed; 1160 – Introduced shrub; 1140 – ground level planters)

3.13 Located on the east of Leonardslee House is an area of garden planted with shrubs and ground level planters. Species include lavender (*Lavandula* sp.), rosemary (*Salvia rosmarinus*), hydrangea (*Hydrangea sp.*), camelia (*Camellia sp.*) and rhododendron sp.

u1e Built linear feature

3.14 A sandstone wall encloses the patio area to the north of Leonardslee House and around part of the garden and shrub area.

u1 Built-up areas and gardens (11 - Scattered trees)

3.15 One Cherry (*Prunus* sp.) tree is located within the garden area to the east of Lonardslee House.

u1b Developed land; sealed surface (11 - Scattered trees)

3.16 There is one Yew tree (*Taxus baccata*) to the north of the building, adjacent to the path.

PROTECTED, NOTABLE AND INVASIVE SPECIES ASSESSMENT

3.17 The potential for the Site to support protected and/or notable species has been assessed using criteria provided in Table 2.2 and is based on the results of the desk study and observations made during the survey of habitats at the Site. Those legally protected species not referred to in Table 3.4 below have been scoped out as it is considered that the Site does not contain habitats suitable to support them.

3.18 Key pieces of statute are summarised in Section 1 and set out in greater detail in Appendix 5.

PRELIMINARY ROOST ASSESSMENT

3.19 The building inspection covered two buildings, Leonardslee House and the shed, as detailed below. A site plan is provided in Appendix 1 and supporting photographs of key features in Appendix 2. Table 3.5 provides an assessment of each building/structure.

Table 3.4. Protected, notable and invasive species assessment

Ecological feature	Status[9][10]	Likelihood of occurrence	Ecological importance	Potential constraint
Bats: Roosting Foraging/commuting Hibernating	HR WCA S5	**CONFIRMED (Roosting):** A Preliminary Roost Assessment (PRA) of the buildings on Site was undertaken. No evidence of bats was recorded at the time of the survey, but the building was considered to have High suitability to support roosting bats due to the number of suitable roosting features present and the presence of a confirmed roost during previous surveys undertaken in 2017. Please refer to the PRA table below for full details. **NEGLIGIBLE (Foraging/ commuting):** The Site itself does not contain any suitable foraging or commuting habitat. Suitable habitat is available off-site within Leonardslee Lakes and Garden, with ancient woodland and lakes that provide suitable foraging and commuting habitat. **NEGLIGIBLE (Hibernating):** Leonardslee House has a basement with sandstone walls. Since 2018 the site has changed and become more active with no access internally, all the brickwork was in good condition, with no crevices recorded externally allowing for internal access. The internal environment had changed, and it is permanently lit, heated and in constant use so not suitable for hibernating bats.	Unknown until further surveys undertaken	**Roosting:** Further surveys are required. **Hibernating:** The basement is not considered suitable to support hibernating bats.

[9] The following abbreviations have been used to signify the legislation afforded different species: HR = Conservation of Habitats and Species Regulations 2017 (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.

[10] 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 (Stanbury *et al*., 2021); and/or RD/NN = red data book/nationally notable species (JNCC, undated).

		Bats have previously been confirmed to be roosting within Leonardslee House on Site and as such they are considered further in Section 4 of this report.		
Dormouse	HR WCA S5	**NEGLIGIBLE:** There are three records of dormouse within 2km of the Site, with the closest record approximately 100m east in the woodland between the Site and Engine Pond. The majority of the Site comprised Leonardslee House with associated hard standing and an outdoor seating area. There is no connectivity to the woodland to the east, with footpaths and human activity disturbing the area. **As there is a negligible likelihood of presence, dormice are not considered further in this report.**	N/A	No
Great crested newt	HR WCA S5	**NEGLIGIBLE:** There are records of great crested newts from the last ten years within 2km of the Site. The most recent are from 2019, where a maximum abundance count of 13 adults were found at South Lodge Hotel, 700m from site. There is also a record of great crested newt presence within Leonardslee Lakes and Garden Estate from 2018. Habitat within the Site boundary does not contain any ponds and has limited suitability to support great crested newts during their terrestrial phase due to its size and managed habitat. **As there is a negligible likelihood of presence, great crested newts are not considered further in this report.**	N/A	No – Precautionary approach included within environmental best practise.

Birds: Breeding Wintering	WCA Sections 1-8	**LOW (Nesting):** The building and garden had limited suitability for nesting birds. **LOW (Foraging):** The garden area to the east of the building contained shrubs and trees that provided limited foraging opportunities for common and widespread species of birds. **NEGLIGIBLE (Wintering):** The site does not contain any foraging habitat for wintering birds. **Recommendations are considered in section 4 of this report.**	Likely to be important at Site level only, due to the minimal opportunities the habitats provide for foraging and breeding birds.	Precautionary approach to be adopted, further details can be found in section 4.
Birds	WCA S1	**NEGLIGIBLE:** The desk study found records of 14 WCA Schedule 1 species within 2km of the Site from the last ten years. This includes four species found within Leonardslee Lakes and Gardens: kingfisher *(Alcedo atthis),* hobby *(Falco subbuteo),* crossbill *(Loxia curvirostra)* and firecrest *(Regulus ignicapilla).* There were also two records of birds classed as confidential by the Sussex Ornithological Society (SOS). The Site contained a small garden that provides limited foraging/ nesting opportunities for Schedule 1 birds. It is unlikely this area would be utilised considering the abundance of suitable habitat in the woodland to the east. **As there is a negligible likelihood of presence, Schedule 1 birds are not considered further in this report.**	N/A	No
Reptiles	WCA S5	**NEGLIGIBLE:** The desk study found only one reptile record from the last ten years within 2km of the Site. Several slow-worms are recorded to have been found 800m south of the Site.	Site	No – Precautionary approach included within environmental best practise.

		The Site contained minimal, if any habitat for reptiles. The flower beds and introduced shrubs were unsuitable for reptiles, given how exposed the ground was around the base of the plants and the proximity to the house, it is deemed unlikely to be suitable habitat. **As reptiles are not considered to be present on Site, they are not considered further in Section 4 of this report.**		
Invasive plants	WCA S9	**PRESENT:** The desk study found 11 records of Invasive Non-Native Species (INNS) within 2km of the Site from the last ten years. Some, including montbretia and cherry laurel, could successfully germinate and become established on Site. Rhododendron sp. is present in the grassland areas surrounding the Site. *Rhododendron ponticum* is listed under Schedule 9 of the Wildlife and Countryside Act as an Invasive Non-Native Species. It is possible that the presence of this plant on the Site could result in its spreading and steps should be taken to avoid disturbing this plant. It is assumed that the Rhododendron present on Site is *Rhododendron ponticum*, and precautionary methods are advised. **As an invasive species was identified on the Site they are considered further in Section 4 of this report.**	Likely to be important at Site level only	If any of the rhododendron are to be impacted by the works, measures should be taken to ensure the plant does not spread into the wider habitat. Steps should be taken to avoid treading any part of the plant onto the Site to prevent further spreading.
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

		[redacted]		
Hedgehog	S41 NERC	**NEGLIGIBLE:** The desk study returned no records of hedgehog within 2km of the Site within the last ten years. The survey recorded no evidence of use of the Site by hedgehogs. The Site does not provide suitable nest building opportunities but may be used by dispersing hedgehogs to suitable surrounding habitat, such as the woodland. **As there is a negligible likelihood of presence, hedgehogs are not considered further in this report.**	N/A	No – Precautionary methods included within environmental best practice.

Table 3.5 Preliminary Bat Roost Assessment

Building / Structure	Description	Potential Roost Features (PRFs)	Factors influencing suitability for bats	Building suitability	Evaluation
Leonardslee House	A two-storey Grade II listed building constructed of sandstone brick. The roof is pitched and is constructed of slate with a double gabled end. Internally, the void to the south is constructed of plasterboard and plaster and is lined with bitumen felt. Steel purlin and timber beams are throughout the void and there are uncovered eaves. The void space to the north has access throughout. The void is lined with bitumen felt and has a timber purlin and central ridge board. There are 2 breeze block partitions and 1 brick built partition. Leonardslee House has a basement with sandstone walls. Since 2018 the site has changed and become more active with no access internally, all the brickwork was in good condition, with no crevices recorded externally allowing for internal access. The internal environment had changed, and it is permanently lit, heated and in constant use so not suitable for hibernating bats.	Gaps behind bitumen felt on the Northwest elevation. Vents located along the soffit at approximately 7m high on the northeast face. Gaps in materials behind right hand side window on second storey on the northeast elevation.	Connecting habitats including woodland and ponds provide suitable habitat for foraging and commuting bats. Leonardslee House was a previously confirmed roost for Brown long-eared bats (2018).	**CONFIRMED** for roosting bats. **NEGLIGIBLE** potential for hibernating bats.	This is a previously confirmed roost. Further surveys will be required to determine the current roost status.

Table 3.5 Preliminary Bat Roost Assessment

Building / Structure	Description	Potential Roost Features (PRFs)	Factors influencing suitability for bats	Building suitability	Evaluation
Shed	To the north of Leonardslee House is a single story shed used for storage. The building has a bitumen felt roof pitched roof and the exterior is cladded in timber shiplap.	On the western elevation there is a gap between the wooden bargeboard and the roof.	Connecting habitats including woodland and ponds provide suitable habitat for foraging and commuting bats.	**NEGLIGIBLE** potential for roosting bats.	No further surveys required

NATURE CONSERVATION EVALUATION

3.20 The Site is included within the St Leonards watershed Biodiversity Opportunity Area the Sussex Biodiversity Opportunity Area (BOA) as it represents a priority area for the delivery of Biodiversity Action Plan (BAP) targets. It is one of 75 such areas across Sussex.

3.21 The Site is not subject to any nature conservation designations but is situated approximately 100m east of Old Deer Park Local Wildlife Site (LWS), an area of nature conservation importance. The habitats that comprise the LWS are not found on Site, and it is considered that the development proposals will not impact upon the LWS.

3.22 The Site, as well as the rest of Leonardslee Lakes and Gardens, is classified as Wood-Pasture and Parkland HPI and is likely to contain relics of the former St. Leonards Forest. Wood-pasture and parkland has a long history of continued management, is rare across Sussex and are mosaic habitats valued for their old trees and the wildlife they support. The Site itself does not contain any of the characteristic habitats of Wood-pasture and parkland (Brig, 2011), therefore any future renovations will not impact upon this habitat.

3.23 The habitats on the Site were suitable for a range of noteworthy species, as reported in the desk study or recorded during the survey, as follows:

- Roosting bats;
- Invasive plant species; and
- Common and widespread bird species.

3.24 The habitats at the Site and populations of the above species are likely to be of importance within the immediate vicinity of the Site only. It is unlikely that the Site would support rare species, or diverse assemblages or large populations of any noteworthy species.

3.25 Records for at least eight species of bats, some of which are Species of Principal Importance, were provided in the desk study. It is not possible to confirm the importance 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.

4 Recommendations

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

FURTHER SURVEY AND MITIGATION

4.2 For each constraint identified as being of importance at greater than the site level, all mitigation options provided follow the established Mitigation Hierarchy as set out in Section 5.2 of BS42020:2013. This seeks as a preference to avoid impacts then to mitigate unavoidable impacts, and, as a last resort, to compensate for unavoidable residual impacts that remain after avoidance and mitigation measures. The measures set out below will address no net loss of biodiversity, although no formal calculation of losses and gains has been carried out. Features deemed important at the site level only are considered here only where further survey and/or mitigation is necessary to ensure legal compliance.

4.3 In the absence of mitigation, the following key ecological issues have been identified:

- Leonardslee House is a previously confirmed roost for brown long-eared bats (confirmed by DNA analysis in 2018).
- Further surveys will be required to determine the current status of bats within the main Leonardslee House.
- Habitats suitable for foraging and commuting bats were present nearby – measures should be taken to reduce impacts on bat species on Site post-development.
- Habitats suitable to support nesting and foraging birds were present on Site – these habitats should be retained on Site.

- Invasive Non-Native Species, Rhododendron, was recorded on Site. Should any future proposals require this species to be removed, government guidance should be followed to prevent the spread of this species beyond the Site boundary.

STATUTORY AND NON-STATUTORY SITES

4.4 The Site does not lie within any international statutory or non-statutory nature conservation designations. However, the site is included within the Sussex Biodiversity Opportunity Area (BOA) strategy. No significant impacts are envisaged due as the Site is small in scale and does not include any of the BAP habitats or BAP species for which the area is designated for.

4.5 The Site is situated approximately 100m west of Old Deer Park Local Wildlife Site (LWS), an area of nature conservation importance. The habitats that comprise the LWS are not found on Site, and the development proposals will not result in a change of land use and are small and discrete in nature, therefore, development proposals will not impact upon the LWS.

HABITATS

Ancient Woodland

4.6 The Site is located 40m east of Ancient Replanted Woodland. Ancient woodland is regarded as irreplaceable habitat and the National Planning Policy Framework (2023) states that planning permission should be refused for development that results in the loss or deterioration of Ancient Woodland unless there are wholly exceptional reasons, and a suitable compensation strategy exists.

4.7 Any future works should protect the Ancient Woodland in line with Natural England's Standing Advice (2022). Any new lighting should be directed away from surrounding woodland and Ancient Replanted Woodland and avoid night-time lighting of these areas, to minimise impacts on species such as birds and bats.

4.8 Fuels and chemicals should be stored appropriately to minimise the risk of accidental spillage. Sources of best construction practice and environmental management include CIRIA guidance (Connolly and Charles, 2005) and Defra/Environment Agency guidelines (2016). This guidance relates to various pieces of legislation including the Environmental Damage (Prevention and Remediation) Regulations 2009.

Wood-pasture and parkland

4.9 The Natural Environment and Rural Communities Act 2006 requires that HPIs are regarded as a material consideration in determining planning applications. All HPIs are by default also Sussex BAP habitats. It is recommended that all HPIs within the site are retained where possible.

4.10 The Site is situated with an area designated as 'Wood-Pasture and Parkland' Habitat of Principal Importance. Wood-pasture and parkland are mosaic habitats valued for their trees, especially veteran and ancient trees, and the plants and animals that they support. Grazing animals are fundamental to the existence of this habitat (Brig, 2011).

4.11 The Site does not contain the key features of this habitat, with the majority of the Site consisting of the building, associate hard standing, and small garden.

BATS

4.12 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 2017 (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 Sussex LBAP species.

4.13 Leonardslee House provides high suitability for roosting bats and has previously been confirmed as a roost (The Ecology Consultancy, 2018). Further bat surveys are

required to gather sufficient information to assess the importance of the site for roosting bats and the potential impacts of the proposals.

4.14 The basement beneath Leonardslee House provides negligible suitability for hibernating bats and therefore, no further bat surveys are required.

4.15 The shed provides negligible potential for roosting bats. No further surveys are required.

4.16 Any future proposals are unlikely to impact foraging/commuting bats using the site, provided sensitive artificial lighting is employed during the construction and operational phase of development, as recommended below.

4.17 The proposals are unlikely to impact foraging/commuting bats using the Site, provided sensitive artificial lighting is employed during the construction and operational phase of development.

4.18 A sensitive lighting strategy is recommended, covering construction and post-development with respect to foraging and commuting bats. This could include specifications for downward facing lights or the inclusion of baffles with light spillage kept to a minimum. During the construction phase artificial lighting should only be utilised where necessary for health and safety reasons with lighting only used for the period of time for which it is required (Jones, 2000). It is recommended that a lighting strategy is devised to minimise impacts on the surrounding woodland that includes the following accepted best practice measures (Fure, 2006; Institute of Lighting Engineers, 2009; Institution of Lighting Professionals, 2023):

- The level of artificial 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;
- Warm-white (i.e. long wavelength) should be used over blue-white (i.e. short wavelength) lights as the latter have a significant negative impact on bats (Stone, 2013);
- 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 habitats of value to commuting/foraging bats such as the grassland and woodland to the west or trees assessed as having suitability for roosting bats.

4.19 The High Weald AONB Management Plan (2019) propose that public bodies and others 'follow the Institute for Lighting Professionals guidance; promote information on dark sky-friendly lighting; install outside lighting only when needed and use dark sky-friendly lighting' (objective OQ4).

BREEDING BIRDS

4.20 All wild birds and their nests are protected under the Wildlife and Countryside Act 1981 (as amended). The Site is likely to support common species of breeding bird.

4.21 A precautionary approach should be adopted and where possible any works to Leonardslee House should take place outside of the main breeding bird season (February-August inclusive). If this is not possible, then a nesting bird check of the building should be carried out by a suitably qualified ecologist no longer than 48 hours prior to works commencing. Any active birds' nests should be left in situ and

a suitable buffer established until all the chicks have fledged, or the breeding attempt considered over.

OTHER PROTECTED SPECIES

4.22 Works must stop immediately, and advice sought from a suitably qualified ecologist on how to proceed in the unlikely event that any protected species are found during Site clearance or construction.

4.23 All mammals are afforded protection under the Wild Mammals (Protection) Act 1996, which make it an offence to cause unnecessary suffering to wild mammals.

ENVIRONMENTAL BEST PRACTICE

4.24 Although the site is considered to have negligible potential for newts, dormice, reptiles [redacted], good site practice during the construction phase must take place to avoid any negative impacts through increased noise, lighting, sound, vibration, dust or particles. Best environmental practice measures which should be implemented where appropriate to include:

- Appropriate storage of fuels and chemicals to minimise the risk of accidental spillage. Sources of best construction practice and environmental management include CIRIA guidance (Connolly and Charles, 2005) and various Defra/ Environment Agency guidelines (2016). This guidance relates to various pieces of legislation including the Environmental Damage (Prevention and Remediation) Regulations 2009.
- The protection of retained trees in accordance with *BS 5837:2012 Trees in Relation to Design, Demolition and Construction.*
- All materials should be stored on hardstanding. Where materials cannot be stored on hardstanding, methods for ground protection should be considered and put in place to prevent damage to the root system of any retained trees within the development footprint or wider Leonardslee area. This would also protect against any damage caused by the tracking of heavy machinery during construction works.

- Adherence to best construction practice including CIRIA guidance (Connolly and Charles, 2015) and various Defra/Environment Agency guidelines (2016) that have replaced the Pollution Prevention Guidelines (Environment Agency, 2007).
- All individuals on site should perform frequent checks for plant material on shoes, vehicle tracks and tyres, and equipment to prevent transfer of invasive plant material across the wider Leonardslee Lakes and Gardens Estate and beyond the ownership boundary.

- overnight working should be avoided to minimise noise and disturbance to protected species including [redacted], bats, breeding birds and dormice;
- any trenches should be covered overnight, or include a means of escape for any animals falling in (such as a ramp); and
- any open or exposed pipe work should be capped to prevent animals from gaining access.

INVASIVE SPECIES MANAGEMENT

4.25 *Rhododendron ponticum* is an invasive non-native species. It is listed on Schedule 9 of the Wildlife and Countryside Act in England and Wales therefore, it is also an offence to plant or otherwise cause to grow these species in the wild. If this plant is to be affected during works then appropriate site management and waste disposal will be required. Environmental management guidance to prevent the spread of invasive plant species is available on the Government website (Natural England, Defra & Environment Agency, 2016).

4.26 Rhododendron sp. was found on Site and in the surrounding area. It is unknown if this is *Rhododendron ponticum*, but should be assumed it is, and further methods of control are advised.

4.27 Mechanical methods of control and removal are advised and these comprise pulling young seedlings and excavating the root mass. Appropriate measures should be taken to ensure it is contained during works to avoid spreading and specialist

guidance on how to safely remove and dispose of invasive species should be adhered to

4.28 All personnel working on Site should perform frequent checks for plant material on shoes, vehicle tracks and tyres, and equipment to prevent transfer of invasive plant material across the wider Leonardslee Lakes and Gardens Estate and beyond the ownership boundary.

FURTHER SURVEY REQUIREMENTS

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

Table 4.1: Further survey requirements

Ecological Feature	Survey Requirement	Number of surveys and seasonal considerations
Leonardslee House	Bat dusk/dawn emergence surveys	A minimum of three bat dusk/dawn emergence/re-entry surveys to be undertaken during the bat active season - between May and August (inclusive).

SUMMARY OF RESIDUAL EFFECTS

4.30 Provided that the above is adhered to, with the exception of the additional information required to assess impacts on roosting bats, all identified impacts to ecological receptors will have been addressed, with no residual impacts.

OPPORTUNITIES FOR ECOLOGICAL ENHANCEMENT

4.31 Planning policy at the national and local level and strategic biodiversity partnerships encourage inclusion of ecological enhancements in development projects. Ecological enhancements can also contribute to green infrastructure and ecosystem services such as storm water attenuation and reducing the urban heat island effect.

Measures set out below can be used to achieve a net gain in biodiversity. Please note, however, that no formal calculations have been provided in this instance.

4.32 As proposals for this Site are part of a wider plan for multiple sites within Leonardslee Lakes and Gardens estate, enhancements should be made as part of an enhancement plan that covers the proposals for each Site within the Leonardslee Lakes and Gardens estate.

4.33 The following measures would be suitable for integration into the Site's design.

Dark-sky friendly lighting

4.34 The High Weald AONB Management Plan (2019) propose that public bodies and others 'follow the Institute for Lighting Professionals guidance; promote information on dark sky-friendly lighting; install outside lighting only when needed and use dark sky-friendly lighting' (objective OQ4) (High Weald Joint Advisory Committee 2019).

4.35 Consideration should be given to a sensitive artificial lighting strategy during construction and post-development with respect to breeding birds, dormice and foraging and commuting bats. This could include specifications for downward facing lights or the inclusion of baffles with light spillage kept to a minimum. During the construction phase artificial lighting should only be utilised where necessary for health and safety reasons with lighting only used for the period of time for which it is required (Jones, 2000).

Wildlife Planting

4.36 In order to provide enhancements with the aim of a net-gain in biodiversity, planting in context within the Site could be beneficial and provide numerous benefits for wildlife within the local area. Wildlife planting should include a diversity of native species and the use of nectar-rich and berry producing plants, as well night-scented flowers, will attract a wider range of insects, birds and mammals and continue to accommodate those already recorded at the site and in the local area.

4.37 A planting scheme post development to enhance the garden area in the east of the Site for a range of invertebrates could include native species such as; Honeysuckle (*Lonicera periclymenum),* Primrose *(Primula vulgaris)*, Thyme *(Thymus serpyllum)* and Wild pansey *Viola tricolor.* The inclusion of night scented flowers could be especially beneficial and could include species such as; Night-blooming jasmine (*Cestrum nocturnum)* and Common jasmine (*Jasminum officinale).*

4.38 Trees and shrubs are a great way to encourage species biodiversity and would fit within the context of the Site. Native UK species could include; Bird cherry (*Prunus padus*), Wild cherry (*Prunus avium*), Crab apple (*Malus sylvestris*), Dogwood (*Cornus sanguinea*), Holly (*Ilex aquifolium*) and Rowan (*Sorbus aucuparia*).

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Appendix 1: Maps

Figure 1: Site Context Map

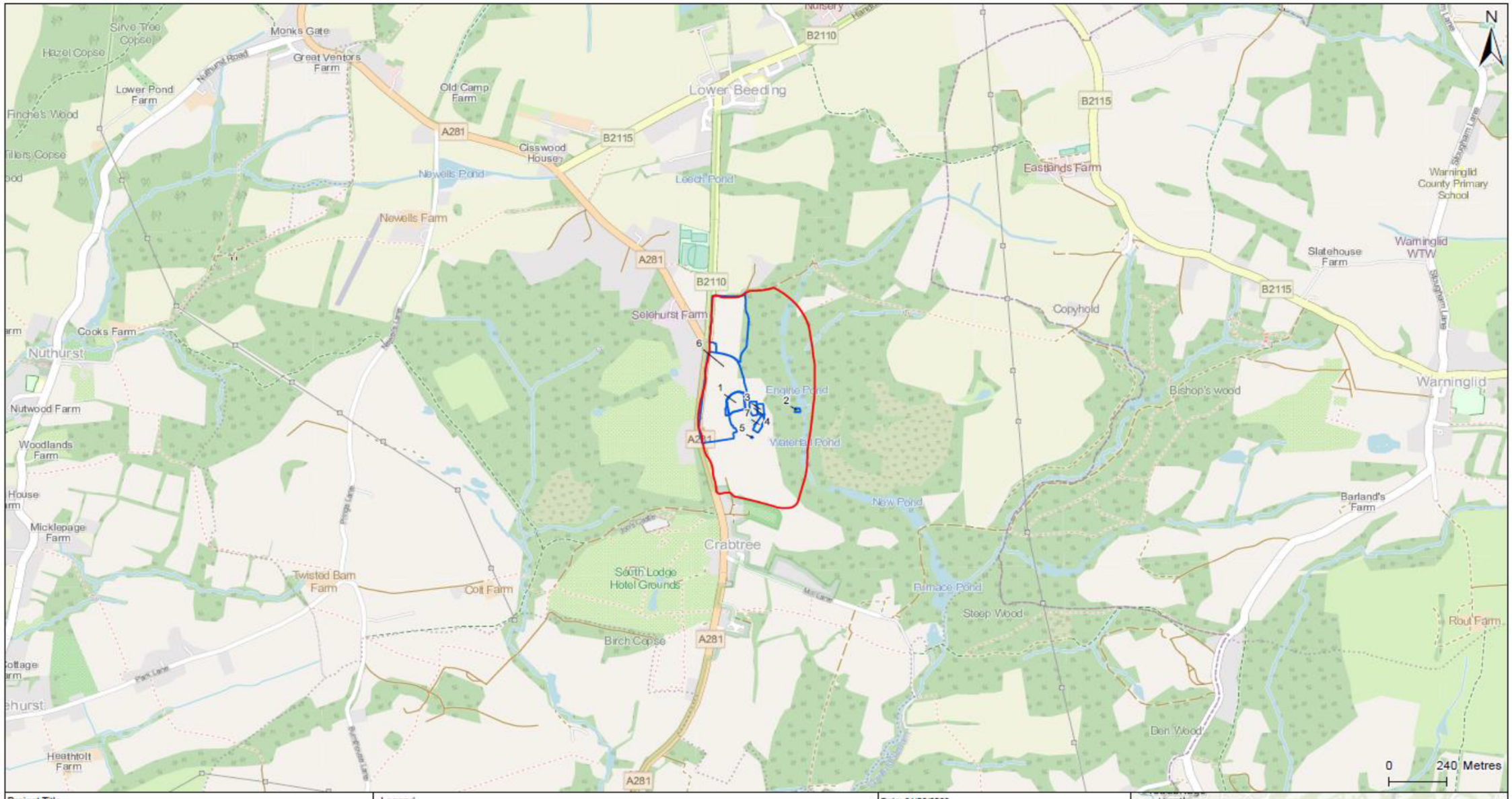


Figure 2: Designated Sites Map

Project Title: Leonardslee Gardens			
Client: Leonardslee Estate			
Map Title: Local Designated Sites			
Scale: 1:22,000	Version: 02	Drawn: GA	Reviewed: JH

Legend

- Data Search Boundary For All Sites
- Data Search Boundary - 2km Buffer
- Development Sites
- 1- Visitor Centre
- 2- Engine House
- 3- The Stables
- 4- Museum
- 5- The Bandstand (site not detectable due to scale of map)
- 6- Car Park
- 7-Leonardslee House

- Ancient Woodland

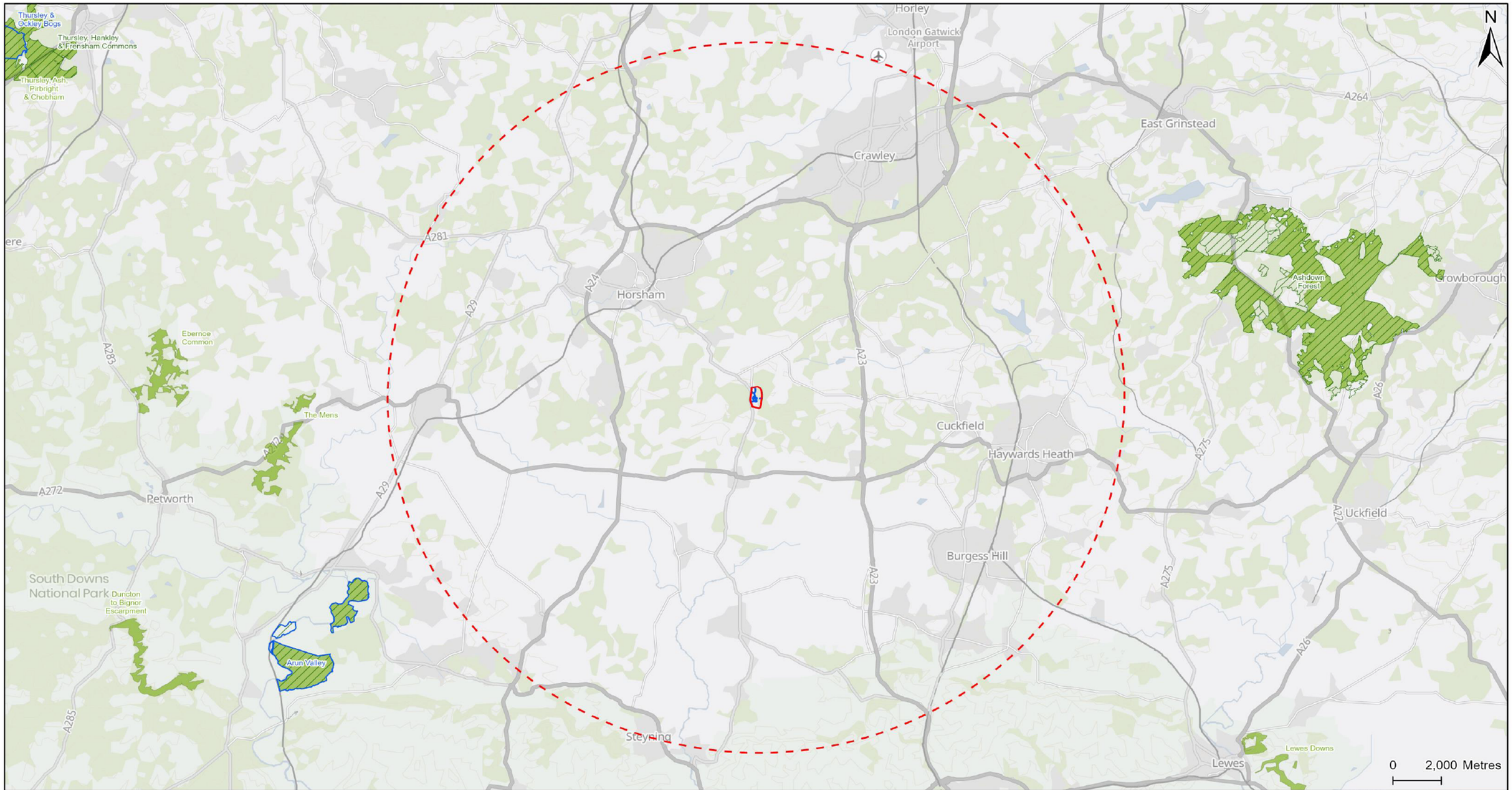
Priority Habitats Inventory (South) (England) © Natural England

- Deciduous woodland
- Good quality semi-improved grassland
- Lowland fens
- Lowland heathland
- No main habitat but additional habitats present
- Traditional orchard
- Local Wildlife Site location
- Wood Pasture and Parkland

Date: 21/03/2023

temple
Temple Group Ltd., The Clove Building,
4 Maguire Street, London, SE1 2NQ
Tel. 020 7394 3700

Figure 3: International designated sites



Project Title	T9105: Leonardslee Lakes and Gardens
Client	Leonardslee Estate
Map Title	International Designated Sites
Scale	1:150,000
Version	1.5
Drawn	JET
Reviewed	MW

Legend

- Data search boundary for all sites
- Development Sites
- Data Search Boundary - 15km Buffer
- Ramsar
- Special Protection Area (SPA)
- Special Areas of Conservation (SAC)

Date: 16/11/2023

temple
Temple Group Ltd., The Clove Building,
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Tel. 020 7394 3700

Figure 4: Habitat Survey Map

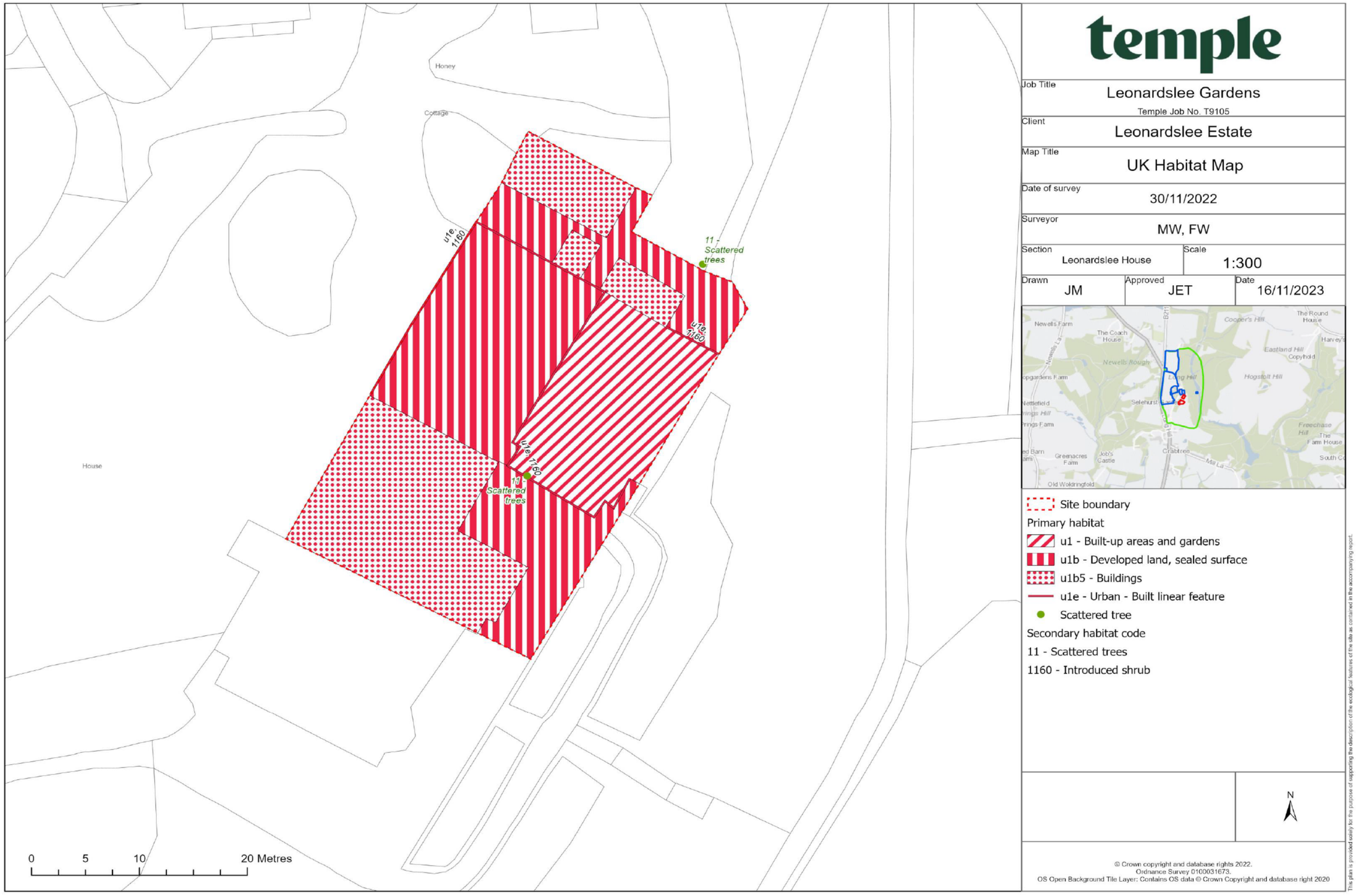
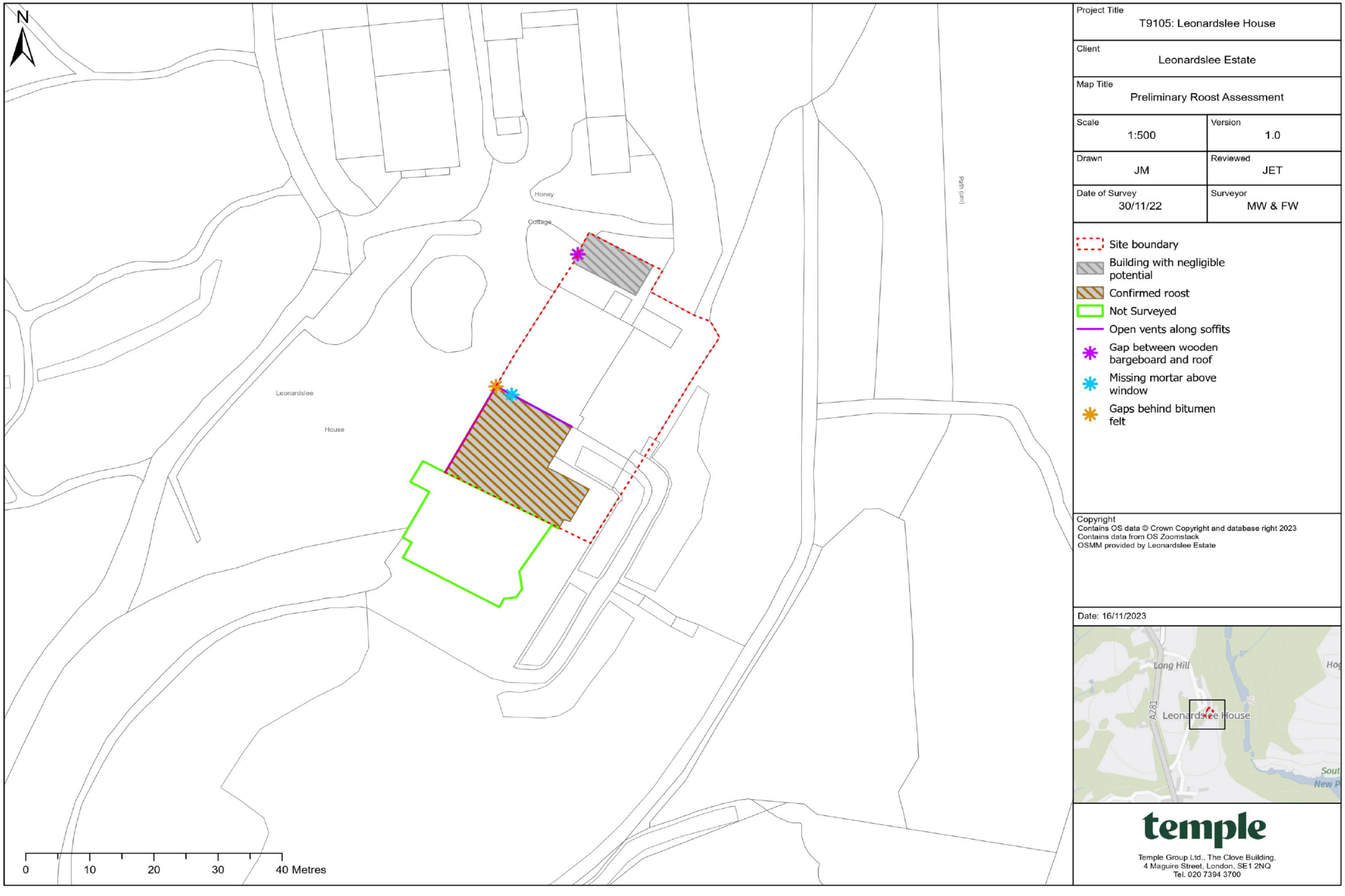


Figure 5: Preliminary Roost Assessment map



Appendix 2: Species List

Botanical Species List for Leonardsee Lakes and gardens, Leonardslee House and Shed Site, compiled from UKHabs survey carried out in November 2022

Scientific nomenclature and common names for vascular plants follow Stace (2019) and Blockeel and 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

Scientific Name	Common Name	Abundance	Qualifier
Camellia sp	Camelia		
Salvia Rosmarinus	Rosemary		
Lavendula sp.	Lavender		
Rhododendron	Rhododendron		
Mentha sp.	Mint		
Salvia officinalis	Sage		
Taxus baccata	Yew		
Prunus sp.	Cherry		
Laurus nobilis	Laurel		
Cotoneaster	Cotoneaster		
Urtica	Nettle		
Eurphorbia sp.	Spurge		
Festuca sp.	Fescue		
Cirsium	Thistle		
Jacobaea vulgaris	Ragwort		
Hedera sp.	Ivy		
Cardamine sp	Cardamine		
Aleuria aurantia	Orange peel fungi		
Pteridium	Braken		
Verbascum thaspus	Great mullein		
Potentilla sp.	Cinqufoil		
Juncus inflexus	Hard rush		
Geranium robertianum	Herb Robert		
Fuschis sp.	Fuschia		
Symphoricarpos	Snowberry		
Hydrengea	Hydrengea		
Ficus carica	Fig		

Appendix 3: Photographs

Photograph 1
Leonardslee House as viewed from the West

Photograph 2
Entrance to basement

Photograph 3
Leonardslee House from the South

Photograph 4
Yew tree to the north of the Site

Appendix 4: Habitat Condition Assessments

Habitat Condition Assessment Proforma 1: u1 Built-up areas and gardens (11 - Scattered trees)

CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 3.1 - AREA BASED HABITATS			
Date	30th November 2022	Metric 3.1 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Leonardslee House
Weather conditions	Overcast, cold		
Surveyor name(s)	MW / FW	Unique polygon reference(s)	N/A
Project / development name	9105	Metric 3.1 habitat type	22. Urban Trees
Site name or location	Leonardslee House	Condition assessment required? (y/n)	Y
Onsite or offsite?	On-site	Condition sheet used	3.1
Reason for assessment (if not baseline condition survey)	Baseline		
Limitations (if applicable)	N/A		

Habitat description
Yew tree

Allocate pass 'P' or fail 'F'. Allocate 'NA' to any irrelevant criteria numbers where condition sheet contains fewer than 13 criteria. For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.														
Criterion	C1	C2	C3	C4	C5	C6								**TOTAL**
Result	P	P	F	F	F	F								2

Are any criteria non-negotiable? (Y/N) If Yes are they passed?	N	Condition (Good/Moderate/Poor):	Moderate
Suggested enhancement interventions to improve condition score			

Habitat Condition Assessment Proforma 2: u1b Developed land; sealed surface (11 - Scattered trees)

CONDITION ASSESSMENT PROFORMA FOR USE WITH BIODIVERSITY METRIC 3.1 - AREA BASED HABITATS			
Date	30th November 2022	Metric 3.1 survey reference (if condition assessment of this polygon relates to a wider habitat survey)	Leonardslee House
Weather conditions	Overcast, cold		
Surveyor name(s)	MW / FW	Unique polygon reference(s)	N/A
Project / development name	9105	Metric 3.1 habitat type	22. Urban Trees
Site name or location	Leonardslee House	Condition assessment required? (y/n)	Y
Onsite or offsite?	On-site	Condition sheet used	3.1
Reason for assessment (if not baseline condition survey)	Baseline		
Limitations (if applicable)	N/A		

Habitat description
Cherry tree

Allocate pass 'P' or fail 'F'. Allocate 'NA' to any irrelevant criteria numbers where condition sheet contains fewer than 13 criteria. For Woodland & Intertidal condition sheets, allocate scores of '1' '2' or '3' against each criteria assessed.														
Criterion	C1	C2	C3	C4	C5	C6								**TOTAL**
Result	P	P	F	F	F	F								2

Are any criteria non-negotiable? (Y/N) If Yes are they passed?	N	Condition (Good/Moderate/Poor):	Moderate
Suggested enhancement interventions to improve condition score			

Appendix 5: Legislation and Planning Policy

Important Notice: This section contains details of legislation applicable in England and Wales only (i.e. not including Scotland, 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 represent the current (at the time of writing) situation with respect to the UK's position outside of the EU and to ensure accuracy throughout, this section should not be relied upon as a definitive statement of the law.

Over the past few years, three important bills have been published which are intended to shape how growing pressures on the environment post-Brexit (post-transition period) are tackled. Both the Agriculture Bill and Fisheries Bill gained Royal Assent in November 2020 and are now the Agriculture Act 2020 and Fisheries Act 2020 respectively; and, more recently, the Environment Bill was passed into law in November 2021, becoming the Environment Act 2021. *N.B. as environment policy is a devolved matter, most of this Act applies to England only.*

A LEGISLATION AFFORDED TO SPECIES

The objective of the EC Habitats Directive[11] 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 2017 (as amended)** and **The 'Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended)**.

Various amendments to the 2017 Regulations in England and Wales have been made through the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. These changes came into effect on the 1 January 2021 following the UK's departure from the EU and the end of the Transition Period. The changes are largely limited to 'operability changes' that will ensure the Regulations can continue to have the same working effect as before.

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

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).

As well as delivering long-term targets to reduce waste and improve resource efficiency and improve air and water quality targets, the **Environment Act 2021** aims to halt the decline of nature by 2030, mandates Biodiversity Net Gain for developments in England and amends the Wildlife and Countryside Act 1981 (as amended) to introduce an additional purpose for granting a protected species licence in relation to development which is 'for reasons of overriding public interest'. The Act also introduces the Office for Environmental Protection (OEP), which will be a new public body intended to hold government and public authorities to account, although the government will be able to issue guidance to the OEP on how it enforces policies and legislation.

Some of the key biodiversity elements in the Act that will have a bearing on species protection in the UK include:

- A strengthened biodiversity duty on Local Planning Authorities;
- Biodiversity net gain to ensure developments, including Nationally Significant Infrastructure Projects (NSIP), deliver at least 10% increase in biodiversity;
- Local Nature Recovery Strategies to support a Nature Recovery Network;
- Duty upon Local Authorities to consult on street tree felling;
- Strengthen woodland protection enforcement measures;
- Conservation Covenants;
- Protected Site Strategies and Species Conservation Strategies to support the design and delivery of strategic approaches to deliver better outcomes for nature;

- Introduces the power for the Habitats Regulations to be amended or 'refocused' to 'to deliver creative public policy thinking that delivers results'.

This section does not provide further detail on the Environment Act 2021 as, at the time of writing (November 2021), the Act, in its final form, has not been published and it remains to be seen how and when the various elements will be enacted at a national and local level.

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

- Salmon and Freshwater Fisheries Act 1975;
- Deer Act 1991;
- Protection of Badgers Act 1992;
- Wild Mammals (Protection) Act 1996;
- Countryside and Rights of Way (CRoW) Act 2000;
- Natural Environment & Rural Communities (NERC) Act 2006;
- The Eels (England and Wales) Regulations 2009; and
- Environment (Wales) Act 2016.

Species and species groups that are protected or otherwise regulated under the aforementioned legislation, and that are most likely to be affected by development activities, include herpetofauna (amphibians and reptiles), [redacted]bats, birds, dormouse, invasive 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 2017 (as amended), which includes smooth snake, sand lizard, great crested newt, natterjack toad, all bat species, otter, dormouse and some plant, invertebrate and fish species, are given below. **These should be read in conjunction with the relevant species sections that follow.**

- In the Habitats 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 2017 (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 where relevant.
- In order to obtain a mitigation licence for species protected under the Conservation of Habitats and Species Regulations 2017 (as amended), 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.

BADGER

Badgers *Meles meles* receive protection under The Protection of Badgers Act 1992 which consolidates the previous Badger Acts of 1973 and 1991 and is amended, in Scotland, by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2011. The Act makes it an offence to:

- Wilfully kill, injure, take, or attempt to kill, injure or take a badger;
- Cruelly ill-treat a badger, including use of tongs and digging;
- Possess or control a dead badger or any part thereof;
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett[12] or any part thereof;
- Intentionally or recklessly disturb[13] a badger when it is occupying a badger sett;

[12] A badger sett is defined in the legislation as *"any structure or place which displays signs indicating current use by a badger"*. This includes seasonally used setts. Natural England (2009) has issued guidance on what is likely to constitute current use of a badger sett: https://webarchive.nationalarchives.gov.uk/20140605121602/http://www.naturalengland.org.uk/Images/WMLG17_tcm6-11815.pdf

[13] For guidance on what constitutes disturbance and other licensing queries, see Natural England (2006 revised 2011) Badgers & Development: A Guide to Best Practice and Licensing (IN75)

- Intentionally or recklessly cause a dog to enter a badger sett; and
- Sell or offers for sale, possesses or has under his control, a live badger.

[redacted]

BATS

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2017 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats);

https://webarchive.nationalarchives.gov.uk/20150303064749/http://publications.naturalengland.org.uk/publication/73034; Natural England (2009) Interpretation of 'Disturbance' in relation to badgers occupying a sett https://webarchive.nationalarchives.gov.uk/20150303064749/http://publications.naturalengland.org.uk/publication/73034; and Natural Resources Wales (2018) Badgers – A Guide for Developers https://cdn.naturalresources.wales/media/684003/badger-fact-sheet-for-developers-english.pdf?mode=pad&rnd=131620320080000000 and Guidance on working close to badger setts without a licence via https://naturalresourceswales.gov.uk/permits-and-permissions/species-licensing/uk-protected-species-licensing/badger-licences-issued-by-natural-resources-wales-and-the-welsh-government/?lang=en

[14] Natural England and Natural Resources Wales will only consider issuing a licence where detailed planning permission (if applicable to operation) has already been granted.

- Deliberate disturbance of bat species as:

  a) to impair their ability:

     - to survive, breed, or reproduce, or to rear or nurture young; or
     - to hibernate or migrate.

  b) to affect significantly the local distribution or abundance of the species.
- Damage or destruction of a breeding site or resting place; and
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

Bats are also protected under the Wildlife and Countryside Act 1981 (as amended) in respect to sub-sections 9 (4) (b) and (c) and 9 (5) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance while in their place of shelter (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?

The appropriate licence issued by the relevant countryside agency (e.g. Natural England, Natural Resources Wales) 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 derogate 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 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 roost[15].

BIRDS

All wild birds, their nests and eggs are protected under Sections 1-8 of the Wildlife and Countryside Act 1981 (as amended). A wild bird is defined as any bird of a species that is resident in or is a visitor to the European Territory of any member state in a wild state. Among other things, the legislation 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; or
- 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 *Tyto alba*, black redstart *Phoenicurus ochruros*, hobby *Falco subbuteo*, bittern *Botaurus stellaris* and kingfisher *Alcedo atthis* receive additional special protection under Schedule 1 of the Act. 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

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

destruction is to undertake work outside the main bird nesting season which typically runs from March to August[16]. 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 also protected against disturbance during the nesting 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. It should be noted that there is no threshold under which disturbance is not an offence, that is to say that disturbance need not be 'significant' for an offence to be committed.

While it is possible to obtain a licence to permit some activities that would otherwise constitute an offence, these can only be issued for specific purposes set out in the Act. This includes damage to crops, to preserve public health or safety and to preserve air safety, but does not include development, some land management and recreational activities and damage to property.

DORMOUSE

Dormice *Muscardinus avellanarius* are fully protected under The Conservation of Habitats and Species Regulations 2017 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. dormouse);
- Deliberate disturbance of dormice as:
  a) to impair their ability:
    (i) to survive, breed, or reproduce, or to rear or nurture young; or
    (ii) to hibernate or migrate.

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

b) to affect significantly the local distribution or abundance of the species.

- Damage or destruction of a breeding site or resting place; or
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

Dormouse are also protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5 in respect to sub-sections 9 (4) (b) and (c) and 9 (5). Under this Act, they are additionally protected from:

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

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

A mitigation licence issued by the relevant countryside agency (e.g. Natural England and Natural Resources Wales) will be required for works liable to affect dormouse breeding or resting places (N.B. this is usually taken to mean dormouse 'habitat') 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 derogate from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Once evidence of dormouse has been found within a site, all contiguous, suitable habitat should be regarded as supporting dormice. Thus, if clearance of suitable habitat is proposed away from, but contiguous with, an area where a dormouse nest was found, a licence is likely to be required, even if no evidence was found within the specific section to be removed.

HERPETOFAUNA (AMPHIBIANS AND REPTILES)

The sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita*, great crested newt *Triturus cristatus* and pool frog *Pelophylax lessonae* receive full

protection under The Conservation of Habitats and Species Regulations 2017 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of species listed on Schedule 2;
- Deliberate disturbance of any Schedule 2 species as:
  - to impair their ability:
    - to survive, breed, or reproduce, or to rear or nurture young; and
    - in the case of animals of a hibernating or migratory species, to hibernate or migrate.
  - 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; and
- 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 listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) in respect to sub-sections 9 (4) (b) and (c) and 9 (5). The pool frog is afforded protection in respect of sub-sections 9(4) (b) and (c) for England only. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance while in their place of shelter (at any level);
- Intentional or reckless obstruction of access to any place of shelter or protection; and
- Selling, offering or exposing for sale, possession or transporting for purpose of sale (excluding pool frog).

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 sub-section 9 (1) & (5). For these species, it is prohibited to:

- Intentionally kill or injure these species; and

- 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 sub-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?

The appropriate licence issued by the relevant countryside agency (e.g. Natural England, Natural Resources Wales) will be required for works liable to affect the breeding sites or resting places of those amphibian and reptile species protected under The Conservation of Habitats and Species Regulations 2017 (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 derogate 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).

OTHER INVERTEBRATES

Three species of invertebrate are afforded protection under Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (as amended): the large blue butterfly *Phengaris arion*, Fisher's estuarine moth *Gortyna borelii lunata* and the little whirlpool ramshorn snail *Anisus vorticulus*. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species;
- Deliberate disturbance of Schedule 2 species as:

a) to impair their ability:

(i) to survive, breed, or reproduce, or to rear or nurture young;

(ii) to hibernate or migrate.

b) to affect significantly the local distribution or abundance of the species.

- Damage or destruction of a breeding site or resting place; and
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

These species, and numerous other invertebrates, including the Norfolk hawker *Aeshna isosceles*, marsh fritillary *Euphydryas aurinia*, purple emperor *Apatura iris*, freshwater pearl mussel *Margaritifera margaritifera* and medicinal leech *Hirudo medicinalis*, are also protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). The degree to which the various invertebrate species are protected by this Act varies widely, ranging from full protection of the animal and its habitat to protection from sale only. Useful summaries of the level of protection afforded individual species can be found at https://hub.jncc.gov.uk/assets/478f7160-967b-4366-acdf-8941fd33850b.

For those afforded full protection, it is an offence to:

- Intentionally kill, injure or take (capture) a wild Schedule 5 invertebrate;
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection;
- Intentionally or recklessly disturb Schedule 5 invertebrates while they are occupying a structure or place used for shelter or protection; and
- Sell, offer or expose for sale, or have in his possession or transport for the purpose of sale, any live or dead Schedule 5 invertebrate or part thereof.

How is the legislation pertaining to protected invertebrates liable to affect development works?

A mitigation licence issued by the relevant countryside agency (e.g. Natural England, Natural Resources Wales) will be required for works liable to affect invertebrate species

protected under The Conservation of Habitats and Species Regulations 2017 (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 and rear young). The licences are to derogate from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

There is no provision in law for the issuing of licences to permit the killing, injuring or taking of protected invertebrates, the damage, destruction or obstruction of access to places of shelter or protection, or the disturbance of invertebrates for the purposes of development. In situations where there is potential for impact, it must be shown that all reasonable effort has been made to avoid contravening the legislation, for example, by ensuring adequate surveys and mitigation measures are in place, that the use of alternative sites has been explored and that there has been liaison with the relevant countryside agency (e.g. Natural England or Natural Resources Wales). It will be necessary to carefully plan any development activities in areas with protected invertebrates; this is likely to require appropriate timing of works with measures to ensure minimal loss of habitat.

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.

NON-NATIVE SPECIES (FAUNA)

Under Section 14 (1) of the Wildlife and Countryside Act 1981 (as amended), it is an offence to release, or allow to escape into the wild, any animal that is not ordinarily resident in and is not a regular visitor to Great Britain in a wild state, or is listed on Schedule 9 of the Act. Examples of species included on Schedule 9 are signal crayfish *Pacifastacus leniusculus*, American mink *Neovison vison*, grey squirrel *Sciurus carolinensis* and European pond terrapin *Emys orbicularis*. In the main, Schedule 9 species are those that are already established in the wild, but which continue to pose a threat to the conservation of native biodiversity and habitats, such that further releases should be regulated. The Schedule also includes some native species, such as barn owl *Tyto alba*, to ensure that any releases or re-introduction programmes are undertaken in consultation with the relevant authorities and in accordance with best practice guidelines.

How is the legislation pertaining to non-native faunal species liable to affect development works?

In most cases, development works are unlikely to infringe the legislation. This is because such operations are unlikely to result in the release or escape of non-native faunal species. However, there may be circumstances, particularly where works involve watercourses or water bodies, which have the potential to exacerbate the spread of e.g. signal crayfish or certain fish or amphibian species. If this is deemed a possibility, it will be necessary to ensure appropriate preventative measures are in place prior to and during the works.

PLANTS AND FUNGI

All wild plants are protected under the Wildlife and Countryside Act 1981 (as amended). This makes it an offence for an 'unauthorised' person to intentionally uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant and fungi, for example some species of orchid, red-tipped cudweed *Filago lutescens*, spiked speedwell *Veronica spicata*, holly-leaved naiad *Najas marina*, field cow wheat *Melampyrum arvense* and sandy stilt puffball *Battarraea phalloides*

are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) in respect of Section 13. This prohibits any person:

- Intentionally picking, uprooting or destruction of any wild Schedule 8 species; and
- Selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof.

In addition to the legislation outlined above, several plant species, such as slender naiad *Najas flexilis*, fen orchid *Liparis loeselii* and early gentian *Gentianella anglica*, are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2017 (as amended). These are species of European importance. Regulation 45 makes it an offence to:

- Deliberately pick, collect, cut, uproot or destroy a wild Schedule 5 species; and
- Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.

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

A mitigation licence issued by the relevant countryside agency (e.g. Natural England, Natural Resources Wales) will be required for works liable to affect species of plant listed under The Conservation of Habitats and Species Regulations 2017 (as amended). The licence is to derogate from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

INVASIVE PLANT SPECIES

Under Section 14 (2) of the Wildlife and Countryside Act 1981 (as amended), it is an offence to plant or otherwise cause to grow in the wild any species of plant listed on Part II of Schedule 9. Schedule 9 plant species include Japanese knotweed *Fallopia japonica*, giant hogweed *Heracleum mantegazzianum* and Himalayan balsam *Impatiens glandulifera*. In the main, Schedule 9 species are those that are already established in the wild, but which

continue to pose a threat to the conservation of native biodiversity and habitats, such that further releases should be regulated.

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.

As a rule, planting on managed land (private gardens, estates and amenity planting, for example), where it is expected that the spread of the plant will be kept under control, and where the plant will not have an adverse impact, is not regarded as planting in the wild and thus would not constitute an offence. However, where the plant is inadequately managed or contained and is likely to have an adverse effect, it may. Whether or not planting is an offence should therefore be judged on a case by case basis, taking into account the potential impacts on habitats and native flora and fauna, and the existence or extent of management practices to be employed[17].

PLANTS: INJURIOUS WEEDS

Under the Weeds Act 1959 any land owner or occupier may be required prevent the spread of certain 'injurious weeds' such as spear thistle *Cirsium vulgare*, creeping thistle *Cirsium arvense*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, and common ragwort *Senecio jacobaea* onto agricultural land, particularly grazing areas or land which is used to produce conserved forage. It is a criminal offence to fail to comply with a notice requiring such action to be taken. The Ragwort Control Act 2003 establishes a ragwort control code of practice[18] as common ragwort is poisonous to horses and other

[17] Defra (2010) Guidance on Section 14 of the Wildlife and Countryside Act, 1981. [ARCHIVED CONTENT] (nationalarchives.gov.uk)

[18] Defra (2004) Code of Practice on How to Prevent the Spread of Ragwort: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69264/pb9840-cop-ragwort.pdf

livestock. This code provides best practice guidelines on how to prevent the spread of this species but is not legally binding.

B EUROPEAN AND NATIONAL LEGISLATION AFFORDED TO SITES AND HABITATS

As for certain species described above, habitats and sites are also protected directly through the Wildlife & Countryside Act 1981 (as amended), The Conservation of Habitats and Species Regulations 2017 (as amended) and The 'Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) through the notification, classification or designation of various protected sites as detailed below.

In addition, The Environment Act 2021 and the Water Framework Directive indirectly afford protection to non-designated habitats through the duties placed on public and private bodies to promote nature conservation and biodiversity, for example, the creation of Local Nature Recovery Strategies (LNRS) and associated Species Conservation and Protected Site strategies, and to reduce or avoid harmful activities. Many of these duties and targets form the basis for national and local planning policy and wider conservation strategies and are not covered in detail here.

STATUTORY SITE 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** (SSSI) under the National Parks 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 (formerly referred to as part of the Natura 2000 network and recently amended to the National Site Network in line with the UK's departure from the EU) and globally (such as Wetlands of International Importance) - see subsequent sections for details of these designations. Improved provisions for the protection and

management of SSSI have been introduced by the Countryside and Rights of Way Act 2000.

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 SITE DESIGNATIONS: INTERNATIONAL

Special Protection Areas (SPAs), together with **Special Areas of Conservation** (SACs) form the basis of the **National Site Network** (until recently, these were part of the Natura 2000 network whilst the UK was part of the EU). SPAs are identified and classified by the Government under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds) via the mechanisms set out in the Habitats Regulations (as applicable at the time of classification).

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 2017 (as amended). The 'Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) provide a mechanism for the classification and protection of European Marine Sites or EMS (SPAs and SACs) in UK offshore waters (from 12-200 nm).

SACs are identified and designated under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora) via the mechanisms set out in the Habitats Regulations (as applicable at the time of designation). 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 nautical miles are protected under The Conservation of Habitats & Species Regulations 2017 (as

amended). The 'Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) provide a mechanism for the designation and protection of European marine sites or EMS (SACs and SPAs) in UK offshore waters (from 12-200 nm).

Ramsar sites are listed 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 (SSSI) 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 highlighting the special status of Ramsar sites. This effectively extends the level of protection to that afforded to sites in England and Wales which have been designated under the EC Birds and Habitats Directives as part of the Natura 2000 network and now the National Site Network (e.g. SACs and SPAs).

STATUTORY DESIGNATIONS: LOCAL

Under the National Parks 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 **Local Wildlife Sites** (LWS), **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 Plan documents 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 may vary between counties.

THE HEDGEROW REGULATIONS 1997

The Hedgerow Regulations 1997 are intended to protect 'important' countryside hedgerows from destruction or damage. Under the 'Wildlife and Landscape' criteria of the Regulations, a hedgerow is considered important if (a) it has existed for 30 years or more; and (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Under the Regulations, it is against the law to remove or destroy important hedgerows without permission from the local planning authority. Hedgerows on or adjacent to common land, village greens, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys are covered by these regulations. Hedgerows *'within or marking the boundary of the curtilage of a dwelling-house'* are not.

C PLANNING POLICY

NATIONAL PLANNING POLICY FRAMEWORK

The National Planning Policy Framework replaced PPS9 and emphasises the need for sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and priority species (see Section D below). An emphasis is also made for the need for ecological networks via preservation, restoration and re-creation. The protection and recovery of priority species is also listed as a requirement of planning policy. In determining 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

Section 40 of The Natural Environment and Rural Communities (NERC) 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.' 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.

LOCAL PLANS

The Horsham District Council Planning Framework (2015) includes the following nature conservation policies that are relevant to the site proposals:

Policy 31: Green Infrastructure and Biodiversity

"1. Development will be supported where it can demonstrate that it maintains or enhances the existing network of green infrastructure. Proposals that would result in the loss of existing green infrastructure will be resisted unless it can be demonstrated that new opportunities will be provided that mitigates or compensates for this loss, and ensures that the ecosystem services of the area are retained.

2. Development proposals will be required to contribute to the enhancement of existing biodiversity, and should create and manage new habitats where appropriate. The

Council will support new development which retains and /or enhances significant features of nature conservation on development sites. The Council will also support development which makes a positive contribution to biodiversity through the creation of green spaces, and linkages between habitats to create local and regional ecological networks.

3. Where felling of protected trees is necessary, replacement planting with a suitable species will be required.

4. a) Particular consideration will be given to the hierarchy of sites and habitats in the district as follows: i. Special Protection Area (SPA) and Special Areas of Conservation (SAC) ii. Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs) iii. Sites of Nature Conservation Importance (SNCIs), Local Nature Reserves (LNRs) and any areas of Ancient woodland, local geodiversity or other irreplaceable habitats not already identified in i & ii above.

b) Where development is anticipated to have a direct or indirect adverse impact on sites or features for biodiversity, development will be refused unless it can be demonstrated that: i. The reason for the development clearly outweighs the need to protect the value of the site; and, ii. That appropriate mitigation and compensation measures are provided.

5. Any development with the potential to impact Arun Valley SPA or the Mens SAC will be subject to a HRA to determine the need for an Appropriate Assessment. In addition, development will be required to be in accordance with the necessary mitigation measures for development set out in the HRA of this plan".

D BIODIVERSITY ACTION PLANS (BAPs)

Since the publication of the UK BAP in 1994, new strategies and frameworks have resulted in the development of biodiversity issues and changes in the terminology used to describe these habitats and species in England. This has been brought about through the replacement of the previous England Biodiversity Strategy with *Biodiversity 2020: A Strategy For England's Wildlife and Ecosystem Services* (2011) and the replacement of the UK BAP itself with the *UK Post-2010 Biodiversity Framework* (2012). All previous UK BAP species and habitats are still of material consideration in the planning process but are now

referred to as Habitats and Species of Principal Importance (as described under the NERC Act 2006 above).

The distribution of BAP/priority habitats has been used to identify Biodiversity Opportunity Areas at a regional scale through Biodiversity Strategies/Partnerships. They represent a strategic landscape scale approach to habitat creation, restoration or expansion. They represent regional priority areas of opportunity to restore and create key habitats. They are therefore a spatial representation of targets for Habitats of Principal Importance and are areas of opportunity, not constraint.

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