



**Preliminary Ecological
Appraisal**

Pondtail Wood, Albourne

October 2021

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Non-technical Summary

Phlorum Ltd was commissioned by Chris Nutley to undertake a Preliminary Ecological Appraisal which was carried out at Pondtail Wood, Albourne on the 27th August 2021, in order to determine whether any ecological constraints could affect the proposed works for the site.

Current proposals are for the construction of an agricultural barn. The survey area extended over approximately 0.1 hectares (ha).

The main findings of the surveys are as follows:

- 🌿 The site lies within the South Downs National Park and the next closest statutory site is Wolstonbury Hill SSSI located 1.75km to the southeast at its closest point. The survey area does not support any features that contribute to the designation of this site.
- 🌿 The site survey revealed the following habitats:
 - Buildings; and
 - bare ground.
- 🌿 No protected species surveys are recommended.
- 🌿 It has been recommended that:
 - Working practices take account of the possibility of commuting badgers throughout the site.
 - The site is enhanced by introducing some compensatory planting, wildlife friendly pathways and installing bat and bird boxes.

Further information on precautionary working practices and enhancement measures are discussed in Section 5.

1. Introduction

Background

- 1.1 Phlorum Ltd has been commissioned by Chris Nutley to undertake a Preliminary Ecological Appraisal, to inform the potential ecological constraints of proposed future development of Pondtail Wood, Albourne, West Sussex (hereafter referred to as “the site”).
- 1.2 The purpose of the Preliminary Ecological Appraisal was:
 - 🌿 to identify the major habitats present;
 - 🌿 to identify the potential for any legally protected species to be present; and
 - 🌿 to recommend any additional ecological surveys, if required.
- 1.3 As part of the assessment, a desktop review and a site visit were carried out. The results of which were used to assess the nature conservation importance of the site and the potential of the site to support protected species.
- 1.4 This report has been compiled in accordance with current guidelines (British Standard 42020:2013 Biodiversity. Code of Practice for Planning and Development, 2013 and CIEEM, 2017 and 2018).
- 1.5 It is understood that the proposed development is for the construction of a new agricultural barn measuring approximately 7.5m by 13m.

Site Location

- 1.6 The site is located on the B2117 Muddleswood Road in West Sussex, 1.1km west of the A23 Brighton Road and 2km southwest of the village of Albourne. The site is situated within a rural location surrounded immediately by woodland as well as a pond just outside the site boundary to the east, with agricultural fields and further pockets of woodland making up the wider surrounds. The Singing Hills Golf Course is approximately 300m to the north.
- 1.7 The National Grid Reference for the centre of the site is TQ 26056 14443. The survey area extended over approximately 0.1 hectares (ha).

2. Methodology

Desk Study & Consultations

Database and Map Search

- 2.1 The desktop study involved conducting database searches for statutory and non-statutory designated sites, legally protected species and features of interest within a 2km radius of the site. The database and map search was based on available information provided by the following sources:
-  Sussex Biodiversity Records Centre (SxBRC, 2020);
 -  Multi-Agency Geographical Information for the Countryside (MAGIC, 2021);
 -  Ordnance Survey mapping;
 -  Aerial photography; and
 -  The Woodland Trust online Ancient Tree Inventory.

Review of Previous Report

- 2.2 The desk study has involved the review of the following previous reports carried out for the site:
-  Preliminary Ecological Appraisal (Phlorum 2020).

Habitat Survey and Assessment

- 2.3 Phlorum Limited carried out an ecological survey of the site on the 27th August 2021. The survey was carried out by a suitably qualified ecologist, Natalie Arscott who has over 2 years professional experience of undertaking ecological surveys. The weather conditions during the survey were warm, dry and clear with a gentle breeze.
- 2.4 The field survey comprised a walkover inspection of the land and habitats present. The survey followed standard Phase 1 survey methodology (JNCC, 2010) and covered all accessible parts of the site, including boundary features. Habitats were described and mapped (Figure 1: Appendix A). A list of plant species was compiled, together with an estimate of abundance made according to the DAFOR scale (Appendix D).
- 2.5 This assessment provides information on the habitats in the survey area and identifies actual or potential presence of legally protected or otherwise notable species/habitats in or immediately adjacent to the site.
- 2.6 Photographs of the site are provided in Appendix B.

- 2.7 Scientific names are given after the first mention of a species, thereafter, common names only are used. Nomenclature follows Stace (2010) for vascular plant species.

Protected Species Assessment

- 2.8 The potential for the site to provide habitat for protected species was assessed from field observations in conjunction with results of the desk study. The site was inspected for indications of the presence of protected species including:
- 🌿 Habitat considered suitable to support widespread reptile species including areas with a scrub/grassland mosaic and potential hibernation sites;
 - 🌿 On-site ponds offering potential breeding opportunities for great crested newts (*Triturus cristatus*) and the presence of suitable terrestrial habitat including hedgerows and rough grassland;
 - 🌿 The presence of features in, and on trees, indicating potential for roosting bats Chiroptera, including knot and rot holes, loose bark. Secondary evidence of bats including staining, droppings and feeding remains were also looked for;
 - 🌿 The presence of nesting habitat for breeding birds, including mature trees, dense scrub and hedgerows and direct evidence of bird nesting including bird song, old nests etc.;
 - 🌿 Habitats considered suitable to support badger (*Meles meles*) setts, and evidence in the form of hair, pathways and latrines;
 - 🌿 Presence of woodland and or hedgerows providing suitable habitat to support hazel dormice (*Muscardinus avellanarius*);
 - 🌿 Riparian habitat supporting suitable features for water voles (*Arvicola amphibius*) and otters (*Lutra lutra*), and the
 - 🌿 Presence of nationally protected and/or invasive plants.
- 2.9 The potential presence for protected species is categorised as **Negligible, Low, Moderate, High** or **Present**, based on the findings of the field survey and on the evaluation of existing data.
- 2.10 The purpose of this assessment is to identify whether more comprehensive Phase 2 surveys for protected species or mitigation should be recommended.

Caveat

Data Search Constraints

- 2.11 It is important to note that, even where data is held, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded.

Survey Constraints

- 2.12 Ecological surveys are limited by factors that affect presence of plants and animals such as seasonality. Whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation of the environment.
- 2.13 The survey was carried out in the growing season and therefore some species may not have been visible above ground or readily identifiable.
- 2.14 The appraisal does not constitute a full botanical survey, or a Phase 2 pre-construction survey that would include accurate GIS mapping for invasive or protected plant species. This survey provides a preliminary view of the likelihood of protected species occurring on the site based on the suitability of the habitat, known distribution of the species in the local area and any direct evidence on the site. It is therefore used as a tool to recommend further protected species surveys (or other species of significant nature conservation interest) if on the basis of the preliminary assessment or during subsequent surveys, it is considered reasonably likely that protected species may be present.
- 2.15 It is however considered that the survey was sufficiently rigorous to assess the ecological value of the site.

Limitations

- 2.16 This appraisal also does not constitute as a full invasive species survey. All surveys are subject to the conditions on site at the time of the survey. Site surveys are non-intrusive and rely on the visual identification of aboveground growth. If parts of a site are inaccessible then these areas can often not be surveyed, unless they can be viewed from other areas. If any aboveground growth is being managed or has been disturbed or covered, or the below ground growth is dormant, then it may be impossible for us to identify invasive plants in these areas during our non-intrusive survey.

3. Baseline Conditions

Aerial Photography and OS Maps

- 3.1 Aerial photographs and OS maps show the site to be predominantly bare ground, with a narrow track leading down from the road into a larger clearing. A large pond is located very close to the site boundary to the east, with a total of four ponds and a few drainage ditches mapped within 500m of the site. The site is surrounded by a mixture of ancient replanted and ancient semi-natural woodland, with agricultural fields located to the south and east and a golf course approximately 300m to the north.

Statutory and Non-Statutory Designated Sites

Statutory Sites

- 3.2 The site is within the South Downs National Park and there are a further two Statutory Sites within 2km of the site. Table 1 provides a list of Statutory Sites within 2km of the site.

Table 1: Statutory Sites within 2km of the site

Site Name	Reason for Designation	Area (ha)	Distance from the Site
South Downs National Park	The area has a rich variety of wildlife and habitats including rare and internationally important species.	162,700	On-site
Wolstonbury Hill SSSI	Rich in flowering plants and includes a number of uncommon species. The woodland is established in parts of the site.	59	1.75km Southeast
Beeding Hill to Newtimber Hill SSSI	The site is situated on the scarp slope of the South Downs and is of both geological and biological importance. Three nationally uncommon habitats are represented south-east chalk grassland, juniper scrub and calcareous pedunculate oak-ashbeech woodland.	273	1.8km South

Non-statutory Sites

- 3.3 The closest non-statutory designated site is Newtimber Chalk Quarry LGS and it is the only Non-Statutory Site within 2km of the site. Table 2 provides details of this Non-Statutory site.

Table 2: Non-Statutory Sites within 2km of the site

Site Name	Reason for Designation	Area (ha)	Distance from the Site
Newtimber Chalk Quarry LGS	An active chalk quarry with good exposures of the interval from upper Zig Zag Chalk to lower Holywell Nodular Chalk.	3	1.3km Southeast

Ancient Woodland

- 3.4 There is no ancient woodland covering any part of the site, however the site is surrounded to the east, south and west by ancient replanted woodland. No trees on or adjacent to the site are listed on the Woodland Trusts' Ancient Tree Inventory.

Review of Previous Reports

- 3.5 The Preliminary Ecological Appraisal (PEA) carried out by Phlorum in 2020 surveyed the site as well as a considerably larger surrounding area covering 4.1 hectares. The report concluded that the habitats on-site consisted of neutral semi-improved grassland, standing water, mixed plantation woodland, ruderal vegetation, continuous and scattered scrub, and bare ground. These had potential to support breeding birds, bats, great crested newts, hazel dormice, reptiles, badgers and stag beetles.

Habitats

Site Summary

- 3.6 The site comprised of buildings and bare ground.
- 3.7 The main habitats recorded within the site are described below. Additional details are shown on the habitat survey plan in Appendix A.

Buildings

- 3.8 There were two temporary buildings on site, both situated within the footprint of the proposed location of the new building. It is understood that both buildings will be removed as part of the development.

Building 1 (B1)

- 3.9 Building 1 (B1) was a small wooden storage shed with a gable roof. The shed was situated in the south-western portion of site adjacent to building 2 and was in excellent condition.

Building 2 (B2)

- 3.10 Building 2 (B2) was a metal portable cabin with a flat roof. The cabin was situated in the south-western portion of site adjacent to building 1 and was in good condition.

Bare Ground

- 3.11 The entirety of the survey area was composed of bare ground. This was mostly covered in bark with a hardcore base underneath. A narrow track led from the B2117 road north of the site providing vehicular access to a larger clearing of bare ground, within which the proposed development will be situated. A small amount of young, emergent ruderal vegetation was seen growing through the bare ground along the site boundary, most noticeably around buildings 1 and 2. This included species such as bramble (*Rubus fruticosus* agg.), hedge bindweed (*Calystegia sepium*), bristly oxtongue (*Helminthotheca echioides*), dock (*Rumex* sp.) and unidentified grass.

Protected Species

- 3.12 Legislation relating to the protected species referred to in this section is included in Appendix C.
- 3.13 The following paragraphs detail the suitability of the on-site habitats to support protected species and include information from the data search for protected, rare and otherwise notable species returned within a 2km radius.

Reptiles

- 3.14 The data search returned recent (post-2005) records of slow worm (*Anguis fragilis*), grass snake (*Natrix helvetica*) and common lizard (*Zootoca vivipara*) within 2km of the site.
- 3.15 During the survey no reptiles or signs of reptiles were seen, and the habitat was considered unsuitable to support reptiles due to the lack of vegetation or areas of refuge.
- 3.16 Overall the site was assessed as having **negligible** potential to support reptiles.

Amphibians

- 3.17 The data search returned recent (post-2005) records of great crested newt (*Triturus cristatus*), common frog (*Rana temporaria*), smooth newt (*Lissotriton vulgaris*), palmate newt (*Lissotriton helveticus*) and common toad (*Bufo bufo*) within 2km of the site. Aerial photographs and maps show 4 ponds within 500m of the site and a few drainage ditches.

- 3.18 During the survey no features were seen that could support breeding or foraging newts, due to the lack of water or vegetation within the site. However, the 2020 PEA (Phlorum 2020) identified a single pond of standing water, less than 10m from the south-east boundary of the site. The pond was identified as being highly vegetated with species including soft rush (*Juncus effusus*), pendulous sedge (*Carex pendula*) and cattail sp. (*Typha sp.*).
- 3.19 It was considered that the site offered **negligible** potential for breeding newts and **negligible** potential for foraging and commuting newts, due to the current lack of vegetation on the site.

Bats

- 3.20 The data search returned recent (post-2005) records of bats from the genera pipistrelle (*Pipistrellus sp.*), long-eared (*Plecotus sp.*), barbastelle (*Barbastella sp.*), myotis (*Myotis sp.*), serotine (*Serotinus sp.*), and notcule (*Nyctalus sp.*) occurring within the 2km search area.
- 3.21 During the survey no potential bat roosting features were seen in the two onsite buildings. There were no trees on site and the trees immediately adjacent to the site did not offer potential bat roosting features.
- 3.22 Overall it was considered that the site offered **negligible** potential for roosting bats.

Birds

- 3.23 Several Red or Amber listed Birds of Conservation Concern¹ (BoCC), and notable² bird species were returned by the data search. Species include willow warbler (*Phylloscopus trochilus*), nightingale (*Luscinia megarhynchos*) and cuckoo (*Cuculus canorus*).
- 3.24 During the survey no suitable habitat for nesting birds was seen due to the lack of vegetation onsite.
- 3.25 Overall it was considered that the site offered **negligible** potential for breeding birds.

Badgers

- 3.26 Records for this species are kept confidentially and were not returned by the data search.
- 3.27 The habitats on site were not suitable for either breeding or foraging badgers.

¹ Birds of Conservation Concern status is prioritised into high concern (Red), medium concern (Amber) and low concern (Green) (Eaton et al, 2009). Red-list species are those that are globally threatened according to the IUCN criteria; those whose population or range has declined rapidly in recent years; and those that have declined historically and have not shown a substantial recent recovery. Amber-list species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations. Green-list species are those that fulfil none of the criteria.

² Notable Birds are based on a list of birds that are particularly scarce or vulnerable either at national or a regional level. The majority of these bird species are designated as Schedule 1 species, under the Wildlife and Countryside Act 1981 (as amended), or listed as red or amber-listed BoCC.

- 3.28 Overall, the site offered **negligible** potential for breeding badgers and **negligible** potential for foraging badgers. Although as the wider area was considered suitable for badgers in the 2020 PEA (Phlorum 2020), badgers could commute across the area.

Hazel Dormice

- 3.29 The data search returned recent (post-2005) records of Hazel Dormice (*Muscardinus avellanarius*) within 2km of the site.
- 3.30 The site did not contain the type or density of vegetation that would be suitable for supporting either breeding or commuting dormice.
- 3.31 Overall it was considered that the site offered **negligible** potential to support breeding dormice.

Water Voles

- 3.32 The data search returned recent (post-2005) records of water vole within 2km search area.
- 3.33 The site did not contain the aquatic habitat and vegetation types that would support breeding, foraging or commuting water vole.
- 3.34 Overall it was considered that the site offered **negligible** potential to support breeding water voles and **negligible** potential to support commuting and foraging water voles.

Otters

- 3.35 Reports of otter are not returned by the record centre in this area.
- 3.36 The site did not contain the aquatic habitat and vegetation types that would support breeding, foraging or commuting otters.
- 3.37 Overall it was considered that the site offered **negligible** potential to support breeding otter and **negligible** potential to support commuting otter.

Stag Beetles

- 3.38 The data search returned no recent (post-2005) records of stag beetle (*Lucanus cervus*) within 2km of the site.
- 3.39 There was no evidence of stag beetle, or the habitat they require seen during the survey.
- 3.40 Overall, the site offered **negligible** potential for stag beetle.

Hedgehogs

- 3.41 The data search returned recent (post-2005) records of hedgehogs (*Erinaceus europaeus*) within 2km of the site.
- 3.42 There was no evidence of hedgehogs, or the habitat they require seen during the survey.

3.43 Overall, the site offered **negligible** potential for hedgehogs.

Invasive Plants

- 3.44 The data search returned recent (post-2005) records for invasive non-native species (INNS) that are listed on the Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended) that could utilise on-site habitats.
- 3.45 These species included Japanese knotweed (*Reynoutria japonica*), three cornered garlic (*Allium triquetrum*) and variegated yellow archangel (*Lamium galeobdolon* subsp. *argentatum*).
- 3.46 No INNS listed on Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended) or the Non-Native Species Secretariat (NNSS, 2019) were seen on-site during the survey.

4. Evaluation

- 4.1 On the basis of the information available from the habitat survey and desk study, the site has been evaluated in terms of its potential for biodiversity, support of protected species and habitats, and the contribution the area makes as part of the wider landscape. The nature conservation value of the site has been assessed following standard criteria developed by CIEEM (2017 and 2018) and in accordance with BS 24040:2013. This is provided below.
- 4.2 The biodiversity value of protected species within the site is a preliminary evaluation based upon the desk study records, habitat suitability and the conservation status of the species in question. It should be noted that where European Protected Species (EPS) or species of Principle Importance for the Conservation of Biodiversity are present on-site they may be valued at a lower level/scale where it is considered likely that populations would not be of sufficient importance to justify designation at a higher level. However, regardless of their biodiversity value, such species are still subject to national and/or European legislation.
- 4.3 Key aspects of relevant planning policy regarding conservation, including an explanation of species referred to as being of 'Principal Importance for Conservation of Biodiversity' and European Protected Species and habitats, are provided in the Legislation section in Appendix C.

Geographic Evaluation

Features of International Importance

- 4.4 Features of International Importance are principally sites covered by international legislation or conventions. The Conservation of Habitats and Species Regulations 2017 (as amended) implements the Natural Habitats and Wild Fauna and Flora (92/43/EC) (Habitats Directive) in England and Wales. The Regulations mainly deal with the protection of sites with certain habitats and populations of species that are important for nature conservation in a European context, i.e. Special Areas of Conservation (SAC's) and Special Protection Areas (SPA's).
- 4.5 The site is not subject to any international statutory nature conservation designations. The closest site of International Importance is Castle Hill SAC located 12.7 km to the south-east. The site does not provide any supporting habitat for this designated site.

Features of National Importance

- 4.6 Features of national importance include SSSIs which are designated under the Wildlife and Countryside Act 1981 (as amended). The site is not subject to any national statutory nature conservation designations and it is not considered that any habitats or populations or assemblages of species within the site would meet the criteria for the designation of SSSIs at an appropriate geographic level³.
- 4.7 The closest site of national importance for nature conservation is Wolstonbury Hill SSSI located 1.6km to the south-east. The site is within the impact risk zone of this SSSI and Beeding Hill to Newtimber Hill SSSI. However, the site does not provide any supporting habitat for these SSSIs.

Features of Regional (i.e. Sussex) Importance

- 4.8 The site does not include any features of value at this level neither is it likely to be selected as a SNCI based on the results of the current survey.

Features of District (i.e. Mid Sussex) Importance

- 4.9 The site is relatively small and does not support any features that were considered to be of value at this level.

Features of Local (i.e. Albourne) Importance

- 4.10 The site does not support any features that were considered to be of value at this level.

Features of Value Immediate Vicinity (c. 250m) of the Project

- 4.11 The site does not support any features that were considered to be of value within the immediate vicinity and it does not provide suitable habitat to support any protected species or contribute to the wider ecological network of habitats in the locality.

Summary

- 4.12 Overall on the basis of the survey results and the above criteria, habitats within the site are considered to be of low ecological value.

Local Plan Evaluation

- 4.13 Although the site is in Mid Sussex, it is also within the South Downs National Park, therefore the South Downs Local Plan, adopted in July 2019, is the development plan for this site.
- 4.14 It is considered that the statutory South Downs Local Plan (Adopted 2019) contains the following nature conservation policies relevant to the site. A list of the policies is provided below. The full text of the relevant policies is contained in the Legislation section in Appendix C and this should also be referred to.

³ JNCC Guidelines for selection of biological SSSIs (see <http://jncc.defra.gov.uk/page-2303#download>).

South Downs Local Plan (Adopted 2019)

Core Policy SD1: Sustainable Development 1.

When considering development proposals that accord with relevant policies in this Local Plan and with National Park purposes, the Authority will take a positive approach that reflects the presumption in favour of sustainable development. It will work with applicants to find solutions to ensure that those development proposals can be approved without delay, unless material planning considerations indicate otherwise. 2. The National Park purposes are i) to conserve and enhance the natural beauty, wildlife and cultural heritage of the area; and ii) to promote opportunities for the understanding and enjoyment of the special qualities of the National Park by the public. Where it appears that there is a conflict between the National Park purposes, greater weight will be attached to the first of those purposes. In pursuit of the purposes, the National Park Authority will pay due regard to its duty to seek to foster the economic and social wellbeing of the local communities within the National Park. 3. When determining any planning application, the Authority will consider the cumulative impacts of development. 4. Planning permission will be refused where development proposals fail to conserve the landscape, natural beauty, wildlife and cultural heritage of the National Park unless, exceptionally: a) The benefits of the proposals demonstrably outweigh the great weight to be attached to those interests; and b) There is substantial compliance with other relevant policies in the development plan.

Core Policy SD2: Ecosystem Services 1.

Development proposals will be permitted where they have an overall positive impact on the ability of the natural environment to contribute goods and services. This will be achieved through the use of high quality design, and by delivering all opportunities to: a) Sustainably manage land and water environments; b) Protect and provide more, better and joined up natural habitats; c) Conserve water resources and improve water quality; d) Manage and mitigate the risk of flooding; e) Improve the National Park's resilience to, and mitigation of, climate change; f) Increase the ability to store carbon through new planting or other means; g) Conserve and enhance soils, use soils sustainably and protect the best and most versatile agricultural land; h) Support the sustainable production and use of food, forestry and raw materials; i) Reduce levels of pollution; j) Improve opportunities for peoples' health and wellbeing; and k) Provide opportunities for access to the natural and cultural resources which contribute to the special qualities. 2. Development proposals must be supported by a statement that sets out how the development proposal impacts, both positively and negatively, on ecosystem services.

7H. AGRICULTURE AND FORESTRY

AGRICULTURAL OR FORESTRY NEED

7.185 The construction of new or extended buildings for agriculture and forestry must meet an identified operational need within the context of the National Park purposes and

duty. As they will normally be outside settlement boundaries, they should be built at the minimum scale required to meet that need.

5. Discussion and Recommendations

Discussion

- 5.1 The survey site is located at Pondtail Wood, Albourne, West Sussex. The survey area extended over approximately 0.1 hectares (ha). Habitats to be impacted by the development proposals include buildings and bare ground.
- 5.2 Design proposals include the construction of a new agricultural barn measuring approximately 7.5m by 13m.
- 5.3 Habitats within the proposed development area were assessed as having low ecological value with negligible potential to support any protected species.
- 5.4 No further targeted surveys are recommended.
- 5.5 Provided that the conditions on site have not changed then a precautionary approach to site clearance will not be necessary. However, it is advisable to have an ecologist to reassess the site prior to the development starting to ensure that the conditions have not changed.
- 5.6 Working practices should take account of the possibility of commuting badgers throughout the site.
- 5.7 Details regarding precautionary working practices, habitat retention and enhancement measures are provided below.

Recommendations

Badgers

- 5.8 Badgers receive protection under The Protection of Badgers Act 1992.
- 5.9 Due to the potential presence of badgers in the wider area, a series of general precautions are recommended. This will include the following;
 -  Throughout construction, all on-site contractors must be made aware of the potential presence of badgers in the locality and a tool box talk should be given by a qualified ecologist immediately prior to the start of construction works to discuss the potential for badgers to pass through the site and to provide information on legislation and the ecology of this species.
 -  All trenches should be covered at night or if this is not possible, ramps must be installed into the trenches to enable badgers to escape should they enter the excavations. All materials must be stored safely and lids securely fitted, particular waste and other potential food sources.

Habitat Retention

- 5.10 All retained trees, including all adjacent off-site trees should be protected in accordance with British Standards (BS 2012) 5837:2012 Trees in Relation to Design, Demolition and Construction. The root protection areas of any retained trees must be left free from excavation and disturbance, and protected during any proposed works. Protection should be in the form of fencing and signs installed for the duration of the works.

Habitat Enhancement

- 5.11 New development offers the opportunity for habitat enhancement in accordance with national and local planning policy and some recommendations are included below.

Bird and Bat Boxes and Bricks

- 5.12 Additional bird nesting and bat roosting provision could be incorporated into new design proposals. These could either be installed on adjacent trees or incorporated into the new building design. Some recommendations are made below as a guide.
- 5.13 Bat roosting opportunities could be provided through the installation of boxes on the outside of the walls or remaining trees, such as the Schwegler 2F, or other makes of a similar design, such as Chavenage Bat box. There are a range of bat boxes available and these can be selected to suit the development and bat species in the locality.
- 5.14 Bird boxes could be installed on the walls of the new building or in the remaining trees which could include the following Schwegler bird house or 1B makes, or similar designs from alternative suppliers. If the client is happy for bird boxes to be installed on the walls of the new building then a Schwegler sparrow terrace 1SP could also be used.
- 5.15 Further details of the bird and bat boxes are provided in Appendix F.
- 5.16 Bat boxes should be installed at appropriate locations ideally with south-east, south, or south-west facing aspects at least 3m from ground level. Ideally they need to be exposed to 6-8 hours of direct sunlight, but sheltered from strong winds. If installed on the building, these should ideally be positioned directly below the eaves.
- 5.17 Bird Boxes should be located out of prevailing wind, rain, and strong sunlight, ideally with a clear flight path to the entrance. Ideally they should be installed two to four metres from the ground facing north or north-east.

Wildlife Friendly Pathways

- 5.18 The increase in building can result in ecological areas which are unconnected. Effectively these are ecological islands, and often there is no way for wildlife to migrate to and from these areas. One way to reduce the impact and allow wildlife, including hedgehogs, to migrate across sites is to install wildlife friendly pathways across a site. This can include a range of things such as wildlife corridors, such as hedgerows and scrub or rough grassland corridors, but also installing holes in fences. Wildlife holes, often referred to as hedgehog holes, help wildlife migrate through areas. The holes need to be at least 13cm by 13cm, at ground level.

Compensatory Planting

- 5.19 Additional tree and shrub planting could be incorporated into the landscape proposals to compensate for any removal to facilitate the works. Planting should include a high proportion of native species and be of local provenance where possible. These should be carefully selected to ensure they contain species suitable for the area. Some species of known wildlife value are listed in Appendix E.

6. Conclusions

- 6.1 The site survey revealed the following habitats:
 - 🌿 Buildings; and
 - 🌿 bare ground.
- 6.2 The site is subject to any statutory designations which is the South Downs National Park. However the survey area does not support any features that contribute to the designation of this site.
- 6.3 No protected species surveys are recommended.
- 6.4 Given the lack of vegetation onsite, a precautionary approach to vegetation clearance is not recommended, provided that the conditions have not changed on site.
- 6.5 Working practices should take account of the possibility of commuting badgers throughout the site.
- 6.6 It has been recommended that the site is enhanced by introducing some compensatory planting and installing bat and bird boxes.

7. References

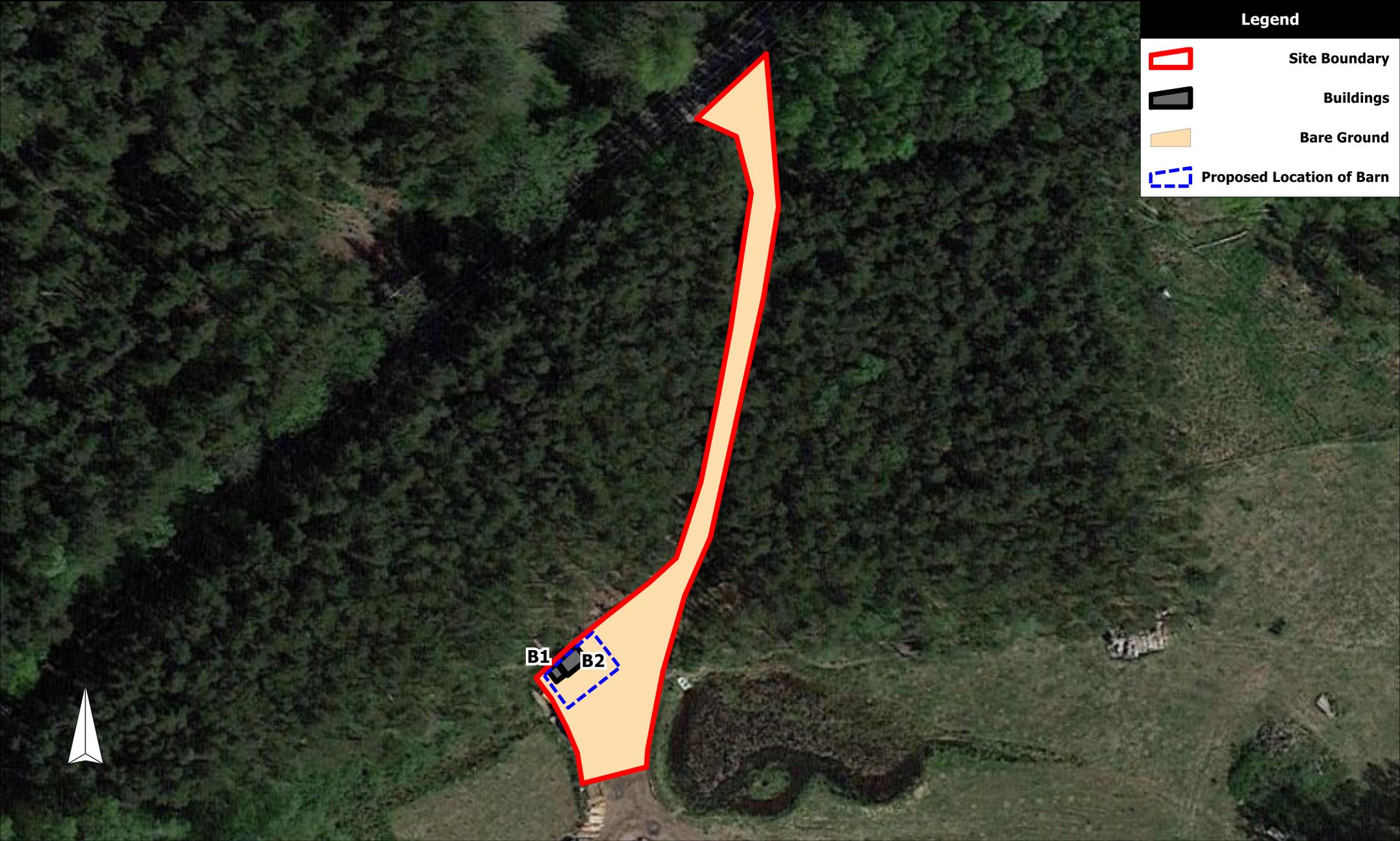
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8. Glossary of Terms

BAP	Biodiversity Action Plan
BRC	Biological Records Centre
CIEEM	Chartered Institute of Ecology and Environmental Management
Habitats Directive	Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora
LNR	Local Nature Reserve
LWS	Local Wildlife Site
MAGIC	Multi-Agency Geographical Information for the Countryside
NNR	National Nature Reserve
Nomenclature	The system of devising of names for plants
NPPF	National Planning Policy Framework
PEA	Preliminary Ecological Appraisal- formerly referred to as a Phase 1 Habitat Survey
SAC	Special Area of Conservation
SNCI	Site of Nature Conservation Interest
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest

Figures and Appendices

Appendix A
Habitat Map



Legend

-  Site Boundary
-  Buildings
-  Bare Ground
-  Proposed Location of Barn

Figure 1: Pondtail Wood Habitat Survey Map

Drawn by: NA
 On the: 30th-Sep-21
 Not to Scale
 Ref: 10861



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Appendix B

Photographs

Photographs

Photo No.	Feature	Photograph of Feature
1	Building 1 (B1)	 <p>50.91563838534057N 0.2083269227296114W West Sussex 27/08/2021 09:59</p>
2	Building 2 (B2)	 <p>50.915562151931226N 0.20829951390624046W West Sussex 27/08/2021 09:51</p>

<p>3</p>	<p>Buildings 1 (B1) and 2 (B2) behind an expanse of bare ground, with the adjacent ancient woodland shown.</p>	 <p>50.91556625906378N 0.2081706840544939W West Sussex 27/08/2021 09:50</p>
<p>4</p>	<p>Bare ground with the nearby pond shown.</p>	 <p>50.91566713526845N 0.2083226479589939W West Sussex 27/08/2021 09:59</p>

Appendix C

Legislation

Legislation

This section contains information pertaining to the legislation and planning policy applicable in Britain. This information is not applicable to Northern Ireland, the Republic of Ireland the Isle of Man or the Channel Islands. Information contained in the following appendix is provided for guidance only.

Species

The objective of the EC Habitats Directive⁴ is to conserve plants and animals which are considered to be rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2017 (as amended) (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and also implements the obligations set out for species protection from the Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Various amendments have been made since the Wildlife & Countryside Act came into force in 1981. Further details pertaining to alterations of the Act can be found on the following website: www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CRoW) Act (2000) and Nature Conservation (Scotland) Act 2004.

There are a number of other legislative Acts affording protection to species and habitats. These include:

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

Badgers

Badgers and their setts are protected under the Protection of Badgers Act (1992), which consolidated and added to the previous Badger Acts of 1973 and 1991. Under this legislation it is an offence to:

-  cruelly ill-treat a badger, including use of tongs and digging;

⁴ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.

- ☞ intentionally or recklessly cause a dog to enter a badger sett;
- ☞ intentionally or recklessly damage, destroy or obstruct access to a badger sett⁵ or any part thereof;
- ☞ intentionally or recklessly disturb⁶ a badger when it is occupying a badger sett;
- ☞ possess or control a dead badger or any part of a badger;
- ☞ sell or offers for sale, possesses or has under his control, a live badger; and
- ☞ wilfully kill, injure, take, or attempt to kill, injure or take a badger.

A Development Licence will be required from Natural England for any development works affecting an active badger sett, or to disturb badgers while individuals are occupying the sett. Depending on the nature of the works and the specifics of the sett, badgers could be disturbed by work near the sett even if there is no direct interference or damage to the sett itself. Natural England has issued guidelines on what constitutes a licensable activity. There is no provision in law for the capture of badgers for development purposes and therefore it is not possible to obtain a licence to translocate badgers from one area to another.

Bats

Bats are protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). This act protects individuals from:

- ☞ intentional or reckless disturbance (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.

In addition, 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 (all bats);
- ☞ deliberate disturbance of bat species as to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.

⁵ 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) have issued guidance on what is likely to constitute current use of a badger sett: www.naturalengland.org.uk/Images/WMLG17_tcm6-11815.pdf

⁶ For guidance on what constitutes disturbance and other licensing queries, see Natural England (2007) Badgers & Development: A Guide to Best Practice and Licensing. www.naturalengland.org.uk/Images/badgers-dev-guidance_tcm6-4057.pdf, Natural England (2009) Interpretation of 'Disturbance' in relation to badgers occupying a sett www.naturalengland.org.uk/Images/WMLG16_tcm6-11814.pdf, Scottish Natural Heritage (2002) Badgers & Development. www.snh.org.uk/publications/online/wildlife/badgersanddevelopment/default.asp and Countryside Council for Wales (undated) Badgers: A Guide for Developers. www.ccw.gov.uk.

- 🌿 deliberate disturbance of bat species as 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.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake activities listed above. A licence is required to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and monitored.

Breeding Birds

Under the Wildlife & 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. Game birds, however, are not included in this definition (except for limited parts of the Act). They are covered by the Games Acts, which fully protect them during the closed season.

Under the Wildlife & Countryside Act, 1981 (as amended), all birds, their nests and eggs are protected under Sections 1-8 of the Act and it is an offence, with certain exceptions, to:

- 🌿 intentionally (or recklessly in Scotland) kill, injure or take any wild bird;
- 🌿 intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built;
- 🌿 intentionally take or destroy the egg of any wild bird;
- 🌿 have in one's possession or control any wild bird, dead or alive, or any part of a wild bird, which has been taken in contravention of the Act;
- 🌿 have in one's possession or control any egg or part of an egg which has been taken in contravention of the Act;
- 🌿 use traps or similar items to kill, injure or take wild birds;
- 🌿 have in one's possession or control any bird (dead or alive) unless registered, and in most cases ringed, in accordance with the Secretary of State's regulations; and
- 🌿 in Scotland only, intentionally or recklessly obstruct or prevent any wild bird from using its nest.

Certain rare species receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC). This affords them protection against:

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

- in Scotland only, intentional or reckless disturbance whilst lekking; and
- in Scotland only, intentional or reckless harassment.

The British Trust for Ornithology (BTO) has a list of birds that are Species of Conservation Concern. These birds are not legally protected but where they are found on site they should be given planning consideration. The criteria for birds listed as amber (medium conservation concern) include:

- historical population decline during 1800-1995, but recovering: population has more than doubled over last 25 years;
- moderate (25-49%) decline in UK breeding population over last 25 years;
- moderate (25-49%) contraction of UK breeding range over last 25 years;
- moderate (25-49%) decline in UK non-breeding population over last 25 years;
- species with unfavourable conservation status in Europe (Species of conservation Concern);
- five year mean of breeding pairs in the UK;
- ≥50% of UK breeding population in 10 or fewer sites;
- ≥50% of UK non-breeding population in 10 or fewer sites;
- ≥20% of European breeding population in UK; and
- ≥20% of NW European (wildfowl), East Atlantic Flyway (waders) or European (others) non breeding populations in UK.

Hazel Dormice

The hazel dormouse (*Muscardinus avellanarius*) is fully protected under The Conservation of Habitats and Species Regulations 2017 through its inclusion on Schedule 2. Regulation 41 prohibits:

- deliberate killing, injuring or capturing;
- deliberate disturbance as to impair its ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.
- deliberate disturbance as 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 of this species.

The hazel dormouse is also currently protected under the Wildlife and Countryside Act 1981 (as amended) through its inclusion on Schedule 5. Under this Act, this species is additionally protected from:

- intentional or reckless disturbance;

- 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.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England 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. The licence will allow derogation from the relevant legislation but will also to enable appropriate mitigation measures to be put in place and monitored.

Herpetofauna (Reptiles and Amphibians)

The following species receive full protection under the Conservation of Habitats and Species Regulations 2017 (as amended) through their inclusion on Schedule 2.

- sand lizard (*Lacerta agilis*);
- smooth snake (*Coronella austriaca*);
- natterjack toad (*Epidalea calamita*);
- great crested newt (*Triturus cristatus*); and
- pool frog (*Pelophylax lessonae*).

Under this legislation, 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:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.
- deliberate disturbance of any Schedule 2 species as 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 of a species.

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

- intentional or reckless disturbance (at any level);
- intentional or reckless obstruction of access to any place of shelter or protection; and

- ☞ selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of herpetofauna are protected solely under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). These species include:

- ☞ adder (*Vipera berus*);
- ☞ grass snake (*Natrix natrix*);
- ☞ common lizard (*Zootoca vivipara*); and
- ☞ slow-worm (*Anguis fragilis*).

Under this legislation, for these species it is prohibited under Section 9(1) & (5) to:

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

The following species are listed in respect to Section 9(5) of Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) which only affords them protection against sale, offering or exposing for sale, possession or transport for the purpose of sale:

- ☞ common frog (*Rana temporaria*);
- ☞ common toad (*Bufo bufo*);
- ☞ smooth newt (*Lissotriton vulgaris*); and
- ☞ palmate newt (*L. helveticus*).

Water Voles

The water vole (*Arvicola amphibius*) (= *terrestris*) is fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- ☞ intentionally kill, injure or take (capture) this species;
- ☞ intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection;
- ☞ intentionally or recklessly disturb water voles 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 water vole or part of this species.

Where development works are liable to affect habitats known to support water voles, Natural England must be consulted. All alternative design options must have been explored and communicated to Natural England in order to demonstrate that works have tried to avoid contravening the legislation e.g. the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable etc. Conservation licences for the capture and translocation of water voles may be issued by Natural England for the purpose of development activities if it can be shown that the

activity has been properly planned and executed and thereby contributes to the conservation of the population.

Otters

Otters (*Lutra lutra*) are fully protected under The Conservation of Habitats and Species Regulations 2017 through their inclusion on Schedule 2. Regulation 41 prohibits:

- 🌿 deliberate killing, injuring or capturing of otters;
- 🌿 deliberate disturbance as to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.
- 🌿 deliberate disturbance as 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 of this species.

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

- 🌿 intentional or reckless disturbance (at any level);
- 🌿 intentional or reckless obstruction of access to any place of shelter or protection; and
- 🌿 selling, offering or exposing for sale, possession or transporting for purpose of sale.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect breeding or resting places or for activities likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above. The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and monitored.

Wild Mammals

All wild mammals are protected against intentional acts of cruelty under the Wild Mammals (Protection) Act 1996. Under this legislation it is 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 of this legislation, due care and attention should be taken when carrying out works that have the potential to impact any wild mammal as described above.

Plants

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

Some rare plant species also receive full protection under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits:

- 🌿 intentionally (or recklessly in Scotland) picking, uprooting or destruction of any wild Schedule 8 species (or seed or spore attached to any such wild plant in Scotland only); 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 parts.

In addition to the legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2017. Regulation 45 makes it an offence to:

- 🌿 deliberately pick, collect or destroy a wild Schedule 5 species; and
- 🌿 be in possession of, or control, transport, sell or exchange any wild live or dead Schedule 5 species or anything derived from it.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect species of plant listed under The Conservation of Habitat and Species Regulations 2017.

Invasive Plant Species

Certain plants are listed on Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) in respect to Section 14(2). Species include:

- 🌿 Japanese knotweed (*Reynoutria japonica*);
- 🌿 giant hogweed (*Heracleum mantegazzianum*);
- 🌿 Himalayan balsam (*Impatiens glandulifera*);
- 🌿 certain species of rhododendron (*Rhododendron* sp.); and
- 🌿 certain species of cotoneaster (*Cotoneaster* sp.).

Species listed are non-natives whose establishment or spread in the wild may be detrimental to native wildlife. Inclusion on Part II of Schedule 9 therefore makes it an offence to:

- 🌿 plant or otherwise cause these species to grow in the wild.

This legislation makes it is an offence to cause species listed to grow in the wild. Therefore, if they are present on site and development activities 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.

Habitats

International Statutory Designations

- Special Protection Areas (SPAs): Terrestrial SPA's are afforded protection by The Conservation (Natural Habitats, &c. Regulations 1994 (as amended) and offshore SPA's are afforded protection under The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended). SPAs are designated under the EC Birds Directive (Council Directive 2009/147/EC on the Conservation of Wild Birds). SPAs are areas recognised as important habitat for rare and migratory birds within the European Union (rare birds as listed on Annex I of the Directive).
- Special Areas of Conservation (SACs): These areas are designated under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora), designated for the habitats and (non-bird) species listed on Annexes I and II to the Directive under the same regulations as detailed for SPA's.
- Ramsar sites: These areas are wetlands designated under the Convention on Wetlands of International Importance (1971). Wetlands can include areas of marsh, fen, water or peatland and may be natural or artificial, permanent or temporary. Ramsar sites are underpinned through prior notification as Sites of Special Scientific Interest (SSSIs) and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CROW) Act 2000.

National Statutory Designations

- Sites of Special Scientific Interest (SSSIs): These sites are designated by the countryside agencies (for example Natural England) under the Wildlife & Countryside Act 1981 (as amended). Prior to 1981 these were designated under the National Parks and Access to the Countryside Act 1949. Improved mechanisms for the protection of SSSIs have also been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales).
- National Nature Reserves: These sites are also designated by the countryside agencies under the Wildlife & Countryside Act 1981 (as amended).

Local Statutory Designations

- 1949 Local Nature Reserves (LNRs): These sites are designated by local authorities under the National Parks and Access to the Countryside Act 1949. These are sites recognised for their wildlife or geological interest at a local level and are managed for nature conservation.

Non-Statutory Designations

- Local Wildlife Sites: Areas of local conservation interest may be designated by local authorities. The terminology for these sites varies depending on the county. They can be called Sites of Nature Conservation Importance (SNCI's), Sites of Importance for Nature Conservation (SINCs), County Wildlife Sites (CWS), Listed Wildlife Sites (LWS), Local Nature Conservation Sites (LNCS), Sites of Biological Importance (SBIs). The designation criteria may vary between counties. Local Wildlife Sites are of material consideration when planning applications are being determined.
- The Hedgerow Regulations 1997: These have been compiled to protect 'important' countryside hedgerows from damage or removal. A hedgerow is considered important if (a) 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 certain hedgerows without permission from the local planning authority. Hedgerows covered by these regulations include those on or adjacent to common land, 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.

National Planning Policy

- The National Planning Policy Framework (NPPF) (2019) replaces the former NPPF 2018 and 2012, and the former PPS9 document and emphasises the need for sustainable development. The Framework specifies the need to protect and enhance biodiversity and geodiversity. Identify and safeguard components of local wildlife-rich habitats and wider ecological networks including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors; and stepping that connect them. Plus partnerships for habitat management, enhancement, restoration or creation. The Framework aims to promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species. In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from adverse harm; appropriate mitigation or compensation measures are in place where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

Local Planning Policy

South Downs Local Plan (adopted July 2019)

Core Policy SD1: Sustainable Development 1.

When considering development proposals that accord with relevant policies in this Local

Plan and with National Park purposes, the Authority will take a positive approach that reflects the presumption in favour of sustainable development. It will work with applicants to find solutions to ensure that those development proposals can be approved without delay, unless material planning considerations indicate otherwise. 2. The National Park purposes are i) to conserve and enhance the natural beauty, wildlife and cultural heritage of the area; and ii) to promote opportunities for the understanding and enjoyment of the special qualities of the National Park by the public. Where it appears that there is a conflict between the National Park purposes, greater weight will be attached to the first of those purposes. In pursuit of the purposes, the National Park Authority will pay due regard to its duty to seek to foster the economic and social wellbeing of the local communities within the National Park. 3. When determining any planning application, the Authority will consider the cumulative impacts of development. 4. Planning permission will be refused where development proposals fail to conserve the landscape, natural beauty, wildlife and cultural heritage of the National Park unless, exceptionally: a) The benefits of the proposals demonstrably outweigh the great weight to be attached to those interests; and b) There is substantial compliance with other relevant policies in the development plan.

Core Policy SD2: Ecosystem Services 1.

Development proposals will be permitted where they have an overall positive impact on the ability of the natural environment to contribute goods and services. This will be achieved through the use of high quality design, and by delivering all opportunities to: a) Sustainably manage land and water environments; b) Protect and provide more, better and joined up natural habitats; c) Conserve water resources and improve water quality; d) Manage and mitigate the risk of flooding; e) Improve the National Park's resilience to, and mitigation of, climate change; f) Increase the ability to store carbon through new planting or other means; g) Conserve and enhance soils, use soils sustainably and protect the best and most versatile agricultural land; h) Support the sustainable production and use of food, forestry and raw materials; i) Reduce levels of pollution; j) Improve opportunities for peoples' health and wellbeing; and k) Provide opportunities for access to the natural and cultural resources which contribute to the special qualities. 2. Development proposals must be supported by a statement that sets out how the development proposal impacts, both positively and negatively, on ecosystem services.

5B. BIODIVERSITY

5.65 The term biodiversity includes all species, communities, habitats and ecosystems, whereas the term geodiversity includes all features of geological and geomorphological interest including rocks, fossils, landforms and natural processes which create them.

5.66 The biodiversity and underlying geodiversity of the National Park directly provide or underpin many ecosystem services that people depend on. Together, these include the filtering and storage of water for clean water supplies, water management and flood alleviation, and also the provision of soils in which we grow our food and other produce,

such as timber. In addition, biodiversity also underpins air quality regulation, pollination and pest control. The geology of the National Park provides aggregates and stone for building and other material uses. These local materials contribute to the economy of the National Park and have had a strong influence on the built vernacular.

5.67 The combination of geology and micro-climates has created a diverse mosaic of habitats that supports many rare and important wildlife species. Many of these are recognised through various international, national and local nature conservation designations. They form essential components of 'ecological networks', helping species to adapt to the impacts of climate change and other pressures; evidence for this is provided in the Habitat Connectivity Report⁴⁰. Designated sites within the National Park are shown on the Policies Map and more information on the types of designations is set out in the Glossary.

5.68 Wildlife habitats are subject to a range of pressures, including those from development, and are often degraded and fragmented. A landscape scale approach is needed to conserve, restore and reconnect habitats across the National Park. As well as causing direct loss of wildlife habitats and geodiversity, development can have a wide range of other negative impacts, for example, housing developments can result in disturbance to wildlife on sensitive sites by dogs and cats as well as increased recreational pressure from the local population; evidence for this is set out in the Access Network and Accessible Natural Greenspace Study⁴¹.

5.70 Development can have a positive impact on biodiversity and geological features. For example, by supporting positive management of geomorphological features, and also by restoring an interconnected network of wildlife sites and achieving net gains in biodiversity, species will be more resilient to adapt to pressures such as climate change. Urban habitats such as gardens, parks and buildings can act as 'stepping stones' and 'wildlife corridors' to enable wildlife to move from one place to another. If development is planned and delivered with these in mind, it can conserve and even enhance biodiversity and geodiversity.

5.72 Trees, woodland and hedgerows are distinctive features of the National Park. Non-woodland trees, including those in hedgerows and street trees, make an important contribution to landscape character, the historic environment and ecosystem services. Hedgerows, in particular, have an important role, by providing connections between habitats, and these need to be managed and maintained. Trees and woodland are important for adaptation to the impacts of climate change. For example, trees in urban areas moderate summer temperatures and new tree planting in well-chosen locations can stabilise slopes and reduce the impacts of flooding.

Strategic Policy SD9: Biodiversity and Geodiversity

1. Development proposals will be permitted where they conserve and enhance biodiversity and geodiversity, giving particular regard to ecological networks and areas

with high potential for priority habitat restoration or creation. Prior to determination, up-to-date ecological information should be provided which demonstrates that development proposals:

a) Retain, protect and enhance features of biodiversity and geological interest (including supporting habitat and commuting routes through the site and taking due account of any use by migratory species) and ensure appropriate and long-term management of those features;

b) Identify and incorporate opportunities for net gains in biodiversity;

c) Contribute to the restoration and enhancement of existing habitats, the creation of wildlife habitats and the creation of linkages between sites to create and enhance local and regional ecological networks;

d) Protect and support recovery of rare, notable and priority species;

e) Seek to eradicate or control any invasive non-native species present on site;

f) Contribute to the protection, management and enhancement of biodiversity and geodiversity, for example by supporting the delivery of GI and Biodiversity Action Plan targets and enhance Biodiversity Opportunity Areas (BOA); and

g) Comply with the mitigation hierarchy as set out in national policy.

7H. AGRICULTURE AND FORESTRY

AGRICULTURAL OR FORESTRY NEED

7.185 The construction of new or extended buildings for agriculture and forestry must meet an identified operational need within the context of the National Park purposes and duty. As they will normally be outside settlement boundaries, they should be built at the minimum scale required to meet that need.

Appendix D

Plant Species List

Plant Species List

Scientific nomenclature follows Stace (2010) for vascular plant species and British Bryological Society (BBS) Special Volume No. 5 *English Names for British Bryophytes* for bryophyte species. Vascular plant common names follow the Botanical Society of the British Isles 2003 list, published on its web site, www.bsbi.org.uk. The plant species list was generated as part of a Phase 1 Habitat survey and does not constitute a full botanical survey.

Abundance was estimated using the DAFOR scale as follows:

D = dominant, A = abundant, F = frequent, O = occasional, R = rare, L = locally

Key to qualifiers: G=garden origin, P=planted, Y = young, S=seedling or sucker, T=tree, H=hedge, W=water, ? = identification uncertain.

Scientific Name	Common Name	Abundance	Qualifier
<i>Calystegia sepium</i>	Hedge bindweed	R	Y
<i>Helminthotheca echioides</i>	Bristly oxtongue	R	Y
<i>Rubus fruticosus</i> agg.	Bramble	O	Y
<i>Rumex</i> sp.	Dock	O	

Appendix E

Suggested Compensatory Planting

Suggested Compensatory Planting

This section provides a list of plants which are of proven value to wildlife. The list is not exhaustive and merely provides a guide for suggested planting for wildlife value. Planting should be tailored on a site by site basis. The list includes some native and ornamental species however the emphasis should always be on the use of predominantly native species.

N = Native, NN = Non-native.

This list includes species that may be harmful if handled or ingested. Schedule 9 (Part 2) of the Wildlife and Countryside Act, 1981 (as amended) includes a list of invasive plants, including aquatic species, that should always be avoided in planting schemes.

Large Shrubs

Hedge veronica/Hebe (*Veronica* spp.) NN

Hawthorn (*Crataegus monogyna*) N

Blackthorn (*Prunus spinosa*) N

Rose: dog rose (*Rosa canina*), field rose (*R. arvensis*), burnet rose (*R. pimpinellifolia*) N

California lilac (*Ceanothus* spp.), (*C. arborea*) NN

Wild privet (*Ligustrum vulgare*) N

Common holly (*Ilex aquifolium*) N

Barberry (*Berberis* spp.) (*B. darwinii*), (*B. thunbergii*), (*B. x stenophylla*) NN

Daisy Bush (*Olearia* spp.), (*O. x hastii*), (*O. macrodonta*) and (*O. traversii*) NN

Firethorn (*Pyracantha coccinea*) NN

Hazel (*Corylus avellana*) N (*C. maxima*) NN

Viburnum (*Viburnum* spp.), wayfaring tree (*V. lantana*) N, guelder rose (*V. opulus*) N, laurustinus (*V. tinus*) E Note: *V. lantana* can become invasive in more open habitats.

Dogwood (*Cornus sanguinea*) N

Broom (*Cytisus scoparius*) N

Escallonia (*Escallonia macrantha*) NN

Hardy fuchsia (*Fuchsia magellanica*) NN

Buckthorn (*Rhamnus cathartica*) N

Spindle (*Euonymus europaeus*) N

Tutsan (*Hypericum androsaemum*) N

Yew (*Taxus baccata*) N

Trees

Cherry (*Prunus* spp.), wild cherry (*P. avium*), bird cherry (*P. padus*), domestic plum (*P. domestica*) N or cherry plum (*P. cerasifera*) NN

Ash (*Fraxinus excelsior*) N

Apple (*Malus* spp.), edible apple (*M. domestica*), crab apple (*M. sylvestris*) N

Pear (*Pyrus* spp.), edible pear (*P. communis*) NN

Small-leaved lime (*Tilia cordata*) N

Silver birch (*Betula pendula*) N

Yew (*Taxus baccata*) N

Black poplar (*Populus nigra*) N

Foxglove tree (*Paulownia tomentosa*) NN

Beech (*Fagus sylvatica*) N

Climbers

Jasmine (*Jasminum* spp.), summer jasmine (*J. officinale*), winter jasmine (*J. nodiflorum*) NN

Ivy (*Hedera helix*) N

Climbing hydrangea (*Hydrangea anomala* ssp. *petiolaris*) NN

Honeysuckle (*Lonicera* spp.) (*L. periclymenum*) N

Clematis (*Clematis* spp.) NN

Hop (*Humulus lupulus*) N

Firethorn (*Pyracantha atalantioides*) NN

Bulbs

English bluebell (*Hyacinthoides non-scripta*) N

Squill species (*Scilla* spp.) N/NN

Snowdrop (*Galanthus nivalis*) N

Winter aconite (*Eranthis hyemalis*) E

Crocus species (*Crocus* spp.) NN

Wild Daffodil (*Narcissus pseudonarcissus*) N

Onion species (*Allium* spp.) N/NN. N.B. *Allium triquetrum* (three cornered leek) and *Allium paradoxum* (few-flowered leek) are Schedule 9 invasive plant species.

Wood anemone (*Anemone nemorosa*) N

Lesser celandine (*Ficaria verna*) N

Appendix F

Bird and Bat Box Designs

Bird and Bat Box Designs

Bird Boxes

Example	Type	Dimension D x W x H (cm)	Target Species	Location
	Schwegler Nest Box 1B Hole-fronted 26mm entrance hole	16 x 16 x 23	Multi-purpose, including: blue-, marsh-, coal and crested tit and possibly wren. All other species are prevented from using the nest box due to the smaller entrance hole.	Suitable walls or semi-mature/mature trees and shrubs; attached to a tree trunk or hung from branches. Ideal points include discrete areas away from predators, such as against walls, plant and metal supports.
	Schwegler Bird House 32mm entrance hole	15 x 21 x 33	Multi-purpose, including: great-, blue-, marsh- and coal tit, redstart, nuthatch, pied flycatcher and sparrows.	Fixed to a semi-mature/mature tree trunk, wall or fence using the hanging bracket on the back. Between 1.5 m and 3 m high, and should be sited higher if your area has a particularly high cat population.

Example	Type	Dimension D x W x H (cm)	Target Species	Location
	Schwegler Sparrow Terrace 1SP	20 x 43 x 24.5	House sparrow. It may also occasionally attract tits, redstarts and spotted flycatchers.	<p>In an elevated position such as on post/platform within dense shrub/tree planting or on top of lighting columns. Alternatively, they could be attached to the side of a building.</p> <p>The terrace can be fixed on to the surface of a suitable wall or incorporated into the wall. It is suitable for all types of houses in built-up areas, and on industrial and agricultural buildings such as barns, sheds and factories. Due to its weight (15kg), it is not suitable for fences or garden sheds. Ideally place the terrace two metres or more above the ground. Either install on the surface of the wall using the plugs and screws provided, or install directly into the wall. Cleaning is not necessary. The front panel can be removed by turning the screw hook.</p>

Bat Boxes

Example	Type	Dimension D x W x H (cm)	Target Species	Location
	<p>2F Schwegler Bat Box (General Purpose) with or without Double Front Panel</p>	<p>16 x 16 x 33</p>	<p>Without panel: Particularly successful with brown long-eared bat. Also used by noctule.</p> <p>With panel: Ideal for crevice-dwelling species: pipistrelles, Myotis species (particularly Daubenton's), Leisler's and serotine.</p>	<p>On trees or buildings and at a height of 3 to 6m.</p> <p>In open sunny positions and in groups of 3 to 5 facing different directions.</p> <p>Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.</p>
	<p>Chavenage Bat Box</p>	<p>10 x 18 x 38</p>	<p>Small crevice-dwelling bats e.g. pipistrelles.</p>	<p>On trees in gardens or woodland and also on house walls. 2.5 - 5m high on a building, mature tree or vegetation line (trees/tall hedge) or on a feeding/flight route in partial daytime sun.</p> <p>Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.</p>



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