



Preliminary Ecological Appraisal

Bartley Wood Business Park,
Hook, RG27 9UP

May 2021

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27/05/2021

PRC Group

12 Warren Yard

Warren Park

Milton Keynes

MK12 5NW

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Rev0	Kim Roll-Baldwin	Paul Carter	Richard Schofield	05 March 2021
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Phlorum Limited

Northern Office: Ground Floor, Adamson House, Towers Business Park, Wilmslow Road, Didsbury, Manchester, M20 2YY

T: 01619 554 250 E: info@phlorum.com W: www.phlorum.com

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Non-technical Summary

Phlorum Ltd was commissioned by PRC Group to undertake a Preliminary Ecological Appraisal which was carried out at Bartley Wood, Hook on the 24th February 2021, in order to determine whether any ecological constraints could affect the proposed works for the site.




Current proposals are for the demolition of existing buildings and redevelopment of the site to provide 9No. industrial units (Flexible Use Class B1/B8/E(g)(i)-(iii)) and 1No. foodstore (Use Class E(a)), together with associated parking, a new vehicular access off Griffin Way South, landscaping and other associated works. The survey area extended over approximately 3.9 hectares (ha).

The main findings of the surveys are as follows:

- 🌿 The site is not subject to any statutory or non-statutory designations from an ecological perspective. The closest statutory site is Hook Common and Bartley Heath SSSI located adjacent to the south of the site and the survey area does not support any features that contribute to the designation of this site.
- 🌿 The habitats on-site consisted of buildings, hardstanding, hedgerow, broad-leaved woodland, running water, standing water and trees.
- 🌿 The site has potential to support breeding birds, reptiles, otters, and water voles.
- 🌿 A precautionary approach to the potential for breeding birds, otters, and water voles to be on-site is recommended.
- 🌿 Further information on precautionary working practices together with recommended mitigation and enhancement measures are discussed in Section 5.

1. Introduction

Background

- 1.1 Phlorum Ltd has been commissioned by PRC Group to undertake a Preliminary Ecological Appraisal, to inform the potential ecological constraints of proposed future development of Bartley Wood, Hook, RG27 9UP (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 involves demolition of existing buildings and redevelopment of the site to provide 9No. industrial units (Flexible Use Class B1/B8/E(g)(i)-(iii)) and 1No. foodstore (Use Class E(a)), together with associated parking, a new vehicular access off Griffin Way South, landscaping and other associated works.






Site Description

- 1.6 The site was located on Bartley Wood Business Park in Hook, Hampshire. To the north and east was further office and industrial buildings. To the east was agricultural land. Bordering the site directly to the south was Bartley Heath.
- 1.7 The site consisted of three large office buildings surrounded by hardstanding acting as a car park with areas of hedgerow scattered throughout the car park. A small stream also ran through the west of the site with a small area of broadleaved woodland on the banks.
- 1.8 The National Grid Reference for the centre of the site is SU 73319 53757. The survey area extended over approximately 3.9 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:
-  Hampshire Biodiversity Information Centre (HBIC, 2021);
 -  Multi-Agency Geographical Information for the Countryside (MAGIC, 2021);
 -  Ordnance Survey mapping; and
 -  Aerial photography; and
 -  The Woodland Trust online Ancient Tree Inventory.

Habitat Survey and Assessment

- 2.2 Phlorum Limited carried out an ecological survey of the site on 24th February 2021. The survey was carried out by a suitably qualified ecologist, Kim Roll-Baldwin who has over 2 years of professional experience undertaking ecological surveys. The weather conditions during the survey were dry and windy.
- 2.3 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).
- 2.4 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.
- 2.5 Target notes highlighting a particular feature of ecological interest are provided in Appendix B, with associated photographs.
- 2.6 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

2.7 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*); and
-  Riparian habitat supporting suitable features for water voles (*Arvicola amphibius*) and otters (*Lutra lutra*); and the
-  Presence of nationally protected and/or invasive plants.

2.8 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.

2.9 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

2.10 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

- 2.11 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.
- 2.12 The survey was carried out in the growing season and therefore many species may not have been visible above ground or readily identifiable.
- 2.13 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.
- 2.14 It is however considered that the survey was sufficiently rigorous to assess the ecological value of the site. and to assess the principle of development by way of a planning application

Limitations

- 2.15 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 located in an urban area with the area immediately north and east consisting of Bartley Wood Business Park. Further to the north as the town of Hook. Directly south the site is bordered by Bartley Heath and 400m south was the M3.
- 3.2 OS Maps showed five ponds within 500m of the site and two drainage ditches.

Statutory and Non-Statutory Designated Sites

Statutory Sites

- 3.3 The closest statutory designated site is Hook Common and Bartley Heath SSSI. 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
Hook Common and Bartley Heath SSSI	This expanse of open heathland and woodland supports a range of wildlife including reptiles and dragonflies. The rare marsh gentian and a population of heath spotted orchids can be found here as well as heath, gorse, skullcap, mullein and cow wheat.	129	0km South
Butter Wood SSSI	A mainly deciduous woodland with diverse geology and structure. Mostly former wood pasture with glades and bridleways and several copses. Fauna including a rich lepidoptera including 25 species of butterfly.	133	1.1km South West
Warnborough Green SSSI	A site with two species rich wet meadows on either side of the River Whitewater. With 13 species of sedge and two nationally rare flies including the soldier fly (<i>Stratiomys potamida</i>) and the hoverfly (<i>Xylota abiens</i>).	4.4	1.5 km South

Basingstoke Canal SSSI	The most botanically rich aquatic area in England with flora including hairlike pondweed and tasteless water-pepper both of which are nationally scarce. With roughly 24 species of dragonfly.	101	1.5km South
Odiham Common with Bagwell Green and Shaw SSSI	Areas of dry grassland with rare solitary bees and wasps and marshy grassland Dead wood provides habitat for nationally rare flies.	133	1.5km East

Non-statutory Sites

- 3.4 The closest non-statutory designated site is Ashwells Copse Site of Importance for Nature Conservation (SINC). Table 2 provides a list of Non-Statutory sites within 2km of the site.

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

Site Name	Reason for Designation	Area (ha)	Distance from the Site
Ashwells Copse SINC	A mosaic of habitats such as wet willow woodland, alder swamp, and wet meadow.	0.59	06km North West
Land adjacent to Bartley Heath (Scotland Farm) SINC	N/A	8.08	0.6km East
Bassets Mead Meadow SINC	The habitats on-site consist of grazing meadow, and floodplain habitat alongside ponds, mature trees and woodland and bankside vegetation.	12.52	0.9km
Bartley Heath (South) SINC	Areas of dry heath, oak and birch woodland.	20.36	1km South West
River Whitewater SINC	N/A	12.52	1km East

Ancient Woodland

- 3.5 There is no ancient woodland covering any part of the site or immediately adjacent to the site. No trees on or adjacent to the site are listed on the Woodland Trusts' Ancient Tree Inventory.

Habitats

Site Summary

- 3.6 The site comprised of buildings, hardstanding, broad-leaved woodland, standing water, ornamental hedge and running water.
- 3.7 The main habitats recorded within the site are described below. Additional details are shown on the habitat survey plan in Appendix A, and the target notes are listed in Appendix B.

Buildings

- 3.8 The site consisted of three large buildings which were used as office blocks.
- 3.9 Building 1 (B1) was in use as an office block with a tiled hip roof (Photo 1 & 2 in Appendix B).
- 3.10 This building was assessed as having **negligible** roosting potential. The building was in good condition with no visible lifted tiles, broken fascia etc.
- 3.11 Building 2 (B2) was in use as an office block with a tiled hip roof. There were two smashed and boarded up windows on the southern and western elevations (TN1 & TN2) (Photo 3 & 4 in Appendix B). Other than the two broken windows the building was in good condition and firmly sealed with no lifted tiles or gaps in the fascia.
- 3.12 This building was assessed as having **negligible** roosting potential.
- 3.13 Building 3 (B3) was in use as an office block with a tiled hip roof (Photo 5 in Appendix B). The building was in good condition with no visible lifted tiles, broken fascia etc.
- 3.14 This building was assessed as having **negligible** roosting potential.

Hardstanding

- 3.15 The majority of the site consisted of hardstanding which was in use as a car park.

Hedgerow

- 3.16 The car park was divided by sections of hedgerow which consisted of species such as cherry laurel (*Prunus laurocerasus*), spiny oleaster (*Elaeagnus pungens*), Californian privet (*Ligustrum ovalifolium*), Chinese privet (*Ligustrum sinense*), laurustinus (*Viburnum tinus*), holly (*Ilex aquifolium*), cotoneaster (*Cotoneaster* spp.), Japanese spindletree (*Eunonymus japonicus*), Caucasian boxwood (*Buxus sempervirens*) (Photo 6 in Appendix B).
- 3.17 The hedgerow in the north east of the site was mostly cotoneaster (TN3).
- 3.18 In areas hedgerow was grown over with ivy (*Hedera helix*).

Broad-Leaved Woodland

- 3.19 The banks of the stream consist of a small area of broad-leaved woodland with English oak (*Quercus robur*) and ivy (*Hedera helix*) (Photo 7 in Appendix B).

Running Water

- 3.20 A small stream runs from south to north in the western area of the site (Photo 7 in Appendix B).

Standing Water

- 3.21 A small water feature was present on-site to the north of building 1 (Photo 8 in Appendix B).

Trees (Approximate location)

- 3.22 The site had several trees on-site English oak (*Quercus robur*), silver birch (*Betula pendular*).

Protected Species

- 3.23 Legislation relating to the protected species referred to in this section is included in Appendix C.
- 3.24 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

- 3.25 The data search showed records of slow worm (*Anguis fragilis*), grass snake (*Natrix helvetica*), adder (*Vipera berus*), and common lizard (*Zootoca vivipara*) within 2km of the site post 2006.
- 3.26 During the survey no suitable habitat to support reptiles was noted as the site consisted of mostly hardstanding with limited shrubs. The river and the vegetation surrounding it provided some suitable habitat for reptiles.
- 3.27 Overall, the site was assessed as having **low** potential to support reptiles.

Amphibians

- 3.28 The data search showed records of great crested newts (*Triturus cristatus*), and common toad (*Bufo bufo*), within 2km of the site post 2006. Aerial photographs and maps show 5 ponds and 2 drainage ditches within 500m of the site.
- 3.29 During the survey no features were seen that could support foraging newts. The standing water onsite was not suitable as it was a water feature made entirely of concrete.
- 3.30 It was considered that the site offered potential for **negligible** breeding newts and **negligible** potential for foraging and commuting newts.

Bats

- 3.31 The data search showed records of bats from the genera pipistrelle (*Pipistrellus*), long eared (*Plecotus*), *Myotis*, serotine (*Serotinus*), western barbastelle (*Barbastella barbastellus*), and *Nyctalus* occurring within the 2km search area post 2006.
- 3.32 The buildings on-site were assessed as having no potential for roosting bats as they were in good condition with no visible routes of ingress. Building 2 had two smashed windows however these were boarded up.
- 3.33 Overall, it was considered that the site offered **negligible** potential for roosting bats.

Birds

- 3.34 Several Red or Amber listed Birds of Conservation Concern¹ (BoCC), and notable² bird species were returned by the data search that may utilise habitats within the site. Species include grey wagtail (*Motacilla cinerea*), house sparrow (*Passer domesticus*), and starling (*Sturnus vulgaris*).
- 3.35 During the survey it was noted that the onsite hedgerow and limited areas of broadleaved woodland provided suitable habitat for nesting birds.
- 3.36 Overall, it was considered that the site offered **moderate** potential for breeding birds.

Badgers

- 3.37 The data search showed records of badgers within 2km of the site post 2006.
- 3.38 The habitats on site were not suitable for either breeding or foraging badgers.
- 3.39 Overall, the site offered **negligible** potential for breeding badgers and **negligible** potential for foraging and commuting badgers.

Hazel Dormice

- 3.40 The data search showed records of dormouse within 2km of the site post 2006.
- 3.41 The site did not contain the type or density of vegetation that would be suitable for supporting either breeding or commuting dormice.
- 3.42 Overall, it was considered that the site offered **negligible** potential to support breeding dormice.

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.

Water Voles

- 3.43 The data search showed no records of water vole within 2km search area post 2006.
- 3.44 The site had a small stream running through the western half of the site, which could support small populations of commuting and foraging water voles.
- 3.45 Overall, it was considered that the site offered **negligible** potential to support breeding water voles and **low** potential to support commuting and foraging water voles.

Otters

- 3.46 The data search showed records of otter within 2km of the site post 2006.
- 3.47 The site didn't contain the aquatic habitat and vegetation of a type that would support breeding otter. However, the presence of water meant it could be suitable for commuting otter
- 3.48 Overall, it was considered that the site offered **negligible** potential to support breeding otter and **low** potential to support commuting otter.

Stag Beetles

- 3.49 The data search showed records of stag beetle (*Lucanus cervus*) within 2km of the site post 2006.
- 3.50 There was no evidence of stag beetle, or the habitat they require seen during the survey.
- 3.51 Overall, the site offered **negligible** potential for stag beetle.

Hedgehogs

- 3.52 The data search showed records of hedgehogs (*Erinaceus europaeus*) within 2km of the site post 2006.
- 3.53 There was no evidence of hedgehogs, or the habitat they require seen during the survey.
- 3.54 Overall, the site offered **negligible** potential for hedgehogs.

Invasive Plants

- 3.55 The data search showed records of Himalayan balsam (*Impatiens glanduliflora*), cherry laurel (*Prunus laurocerasus*), and yellow archangel (*Lamium galeobdolon*) occurring within the 2km search area post 2006. These plants are listed as invasive in Schedule 9 of the Wildlife and Countryside Act (1981 amended).
- 3.56 During the survey specimens of cherry laurel and cotoneaster were seen (See Target Note and Photo in appendices A & B).

- 3.57 Five species of cotoneaster are listed on Schedule 9 of the Wildlife and Countryside Act (1981 amended). Cherry laurel is listed on the London Invasive Species Initiative (LISI) as a category 3 (species of high impact or concern which are widespread in London and require, concentrated, coordinated and extensive action to control/eradicate). Cotoneaster is a LISI category 2 (species of high impact or concern present at specific sites that require attention).

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 Thames Basin Heaths SPA located 7 km to the north 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 located directly to the north of Hook Common and Bartley Heath SSSI located 0 km to the south. The site does not provide any supporting habitat for this statutory designated site.
- 4.8 The site is also located within the 2km Impact Risk Zone of Hook Common and Barley Heath due to the limited suitable habitat on this site, the site does not have any supporting habitat for this SSSI.

Features of Regional (i.e. Hampshire) Importance

- 4.9 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. Hart) Importance

- 4.10 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. Hook) Importance

- 4.11 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

- 4.12 The on-site vegetation is of value within the immediate vicinity and provides suitable habitat to support protected species including breeding birds, reptiles, otters and water voles. It also forms part of the wider ecological network of habitats in the locality, providing wildlife corridors for mobile species to move through the landscape.

Summary

- 4.13 Overall, on the basis of the survey results and the above criteria, habitats within the site are considered largely to be of ecological value within the immediate vicinity only. The site provides suitable habitat to support several protected species and groups including breeding birds, reptiles, otters and water voles. However, populations of these are unlikely to be locally significant.

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

Local Plan Evaluation

- 4.14 It is considered that the statutory Hart Local Plan (Strategy and Sites) 2032 (Adopted April 2020) contains the following nature conservation policies relevant to the site. A summary of these 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.

Hart Local Plan (Strategy and Sites) 2032

Key Issues:

- *To protect and enhance biodiversity including the protection of sites designated for their ecological importance. This includes the need to ensure that new development does not adversely affect the Thames Basin Heaths Special Protection Area (TBHSPA);*

Policy N BE 4 Biodiversity

In order to conserve and enhance biodiversity, new development will be permitted provided:

- a) *It will not have an adverse effect on the integrity of an international, national or locally designated site including the Thames Basin Heaths Special Protection Area (SPA), Sites of Special Scientific Interest (SSSIs), Sites of Importance for Nature Conservation (SINCs) and National and Local Nature Reserves (NNRs and LNRs). The level of protection afforded to these sites is commensurate with their status within this hierarchy and gives appropriate weight to their importance and contribution to wider ecological networks.*
- b) *It does not result in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss;*
- c) *Opportunities to protect and enhance biodiversity and contribute to wildlife and habitat connectivity are taken where possible, including the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations. All development proposals will be expected to avoid negative impacts on existing biodiversity and provide a net gain where possible.*

If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, or, in the case of European Protected sites does not comply with the Conservation of Habitats and Species Regulations 2017, then planning permission will be refused.

5. Discussion and Recommendations

Discussion

- 5.1 The survey site is located at Bartley Wood, Hook, RG27 9UP. The survey area extended over approximately 3.9 hectares (ha). Habitats to be impacted by the development proposals include buildings, hardstanding, broad-leaved woodland, standing water, hedgerow, tree (approximate location), and running water.
- 5.2 Design proposals include demolition of existing buildings and redevelopment of the site to provide 9No. industrial units (Flexible Use Class B1/B8/E(g)(i)-(iii)) and 1No. foodstore (Use Class E(a)), together with associated parking, a new vehicular access off Griffin Way South, landscaping and other associated works.
- 5.3 Habitats within the proposed development area were assessed as being of value to wildlife with the local vicinity with potential to support breeding birds and these species may pose a constraint to works.
- 5.4 In addition, a precautionary approach to site clearance in respect to breeding birds is recommended to minimise any adverse impacts on this species group.
- 5.5 Details regarding specific mitigation, including precautionary working practices together with habitat enhancement measures are provided below.

Recommendations

Breeding Birds

- 5.6 The on-site buildings and vegetation provide suitable nesting habitat for a range of bird species. All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended).
- 5.7 In order to avoid any potential impact on breeding birds, the clearance of the site should be undertaken outside the main bird nesting season which runs from March to August inclusive⁴, with clearance works possible between September and February. Where this is not possible, an ecologist would need to check the vegetation for active nests and signs of bird breeding activity.
- 5.8 In the event that a nest is found, an exclusion zone around the nest would be established. Works would have to cease within this buffer area until the young birds have fledged.

⁴ It should be noted that this is the main breeding period. Breeding activity may occur outside this period (depending on the particular species and geographical location of the site) and thus due care and attention should be given when undertaking potentially disturbing works at any time of year.

Reptiles

- 5.9 All reptiles are protected under the Wildlife and Countryside Act 1981 (as amended).
- 5.10 The proposed development is not due to impact upon the stream or vegetation surrounding it so it is not thought reptiles will be affected by the development. However, if the development plans change and the vegetation and stream is to be affected then any vegetation removal will need to be carried out under an ecological watching brief.

Water Voles

- 5.11 Water voles are protected under the Wildlife and Countryside Act 1981 (as amended).
- 5.12 The on-site habitats were considered to provide limited potential for water vole and therefore, at this stage no further survey is considered necessary. It is however considered necessary to adopt a precautionary approach to works to safeguard this protected species. This will require a suitably qualified ecologist carrying out an updated walkover survey of the site immediately prior to works starting on the site. The ecologist will then give a toolbox talk to the on-site contractors prior to the start of works to discuss a precautionary approach to works.
- 5.13 It is also recommended that if any on-site bankside vegetation is to be cleared this should be carried out using handheld trimmers or similar prior to ground works commencing in order to make the ditch unsuitable for this species group and discourage use of this feature during works. These works should be overseen by a suitably qualified ecologist.

Otters

- 5.14 Otters and their places of refuge are protected at a European level under the EC Habitats Directive (as amended 2010) and have full protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).
- 5.15 Although potential habitat for otters was identified on the site, no otters or secondary signs of otters were found on the site. It is therefore recommended that a precautionary approach will be required to safeguard this protected species. This will require a suitably qualified ecologist carrying out an updated walkover survey of the site immediately prior to works starting on the site. The ecologist will then give a toolbox talk to the on-site contractors prior to the start of works to discuss a precautionary approach to works.
- 5.16 To help maintain the value of the watercourse, the area should be litter picked at the start and end of works, and all construction related materials removed periodically through the contract period and on completion of works.
- 5.17 The use of high intensity lighting which would illuminate the watercourse should be avoided both during the works period and following on from the completion of the project, to ensure that suitable habitat for otter is maintained.

- 5.18 It is recommended that no works within 30m of the watercourse should be undertaken after dusk.
- 5.19 Otters are naturally inquisitive. Any excavations that are left overnight should include a ramp of 45 degrees or less on one face to allow otter and other wildlife to climb out should they fall into the excavation. Excavations should be inspected daily before the start of works.
- 5.20 Construction staff should be aware that otter may lie-up in stacked pipes or beneath pallets. These features should be inspected daily before the start of works.

Habitat Retention

- 5.21 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

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

Control of Invasive Non-Native Species (INNS)

- 5.23 Although it is not illegal to have species listed under the Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), it is illegal to permit these species to spread and grow in the wild.
- 5.24 We recommend that a member for the Property Care Association Invasive Weed Control Group (PCA IWCG) is contacted to manage the invasive weed cotoneaster and cherry laurel. Although the species of cotoneaster has not been confirmed it is usually best to treat it as a WCA Schedule 9 listed species and ensure it is managed appropriately by a PCA IWCG member.

Bird and Bat Boxes and Bricks

- 5.25 Additional bird nesting and bat roosting provision could be incorporated into new design proposals. These could either be installed on trees or incorporated into the new building design. Some recommendations are made below as a guide.
- 5.26 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.

- 5.27 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.
- 5.28 Further details of the bird and bat boxes are provided in Appendix F.
- 5.29 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.
- 5.30 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.

Hook Common & Bartley Wood SSSI

- 5.31 Due to the broad-leaved woodland of Hook Common and Bartley Wood SSSI located directly to the south of the site the development should aim to minimise indirect impacts from lighting associated with the new buildings on the woodland. This can be achieved by following accepted best practice (Institute of Ecology and Environmental Management 2006, Institute of Lighting Professionals 2018, Bat Conservation Trust, 2014).
- 5.32 The trees of the broad-leaved woodland located directly adjacent to the south of the site will require root protection areas where the placement of new buildings and areas of hard surfacing should be avoided. This can be ensured undertaking a tree survey in accordance with BS5837: 2012 '*Trees in relation to design, demolition and construction – Recommendations*'.

Wildlife Friendly Pathways

- 5.33 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

- 5.34 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, hardstanding, broad-leaved woodland, standing water, ornamental hedge, tree (approximate location), and running water.
- 6.2 The site is not subject to any statutory or non-statutory designations from an ecological perspective. The closest statutory site is Hook Common and Bartley Heath SSSI located adjacent to the south of the site and the survey area does not support any features that contribute to the designation of this site.
- 6.3 In addition, a precautionary approach to vegetation clearance in respect to breeding birds is recommended to minimise any adverse impacts on this species group.
- 6.4 A precautionary approach to the potential of otters, reptiles and water voles to be using the site is also recommended.
- 6.5 It has been recommended that the site is enhanced by introducing some compensatory planting and installing bat and bird boxes.
- 6.6 Such mitigation measures can be enforced by way of a suitably worded planning condition.

7. References

- British Standards Institute (2012). 5837:2012. *Trees in Relation to Design, Demolition and Construction – Recommendations*. Standards Policy & Strategy Committee. Milton Keynes: BSI.
- British Standards Institute (2013). 24040:2013. *Biodiversity-Code of Practice for Planning and Development*. Standards Policy & Strategy Committee. Milton Keynes: BSI.
- CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal Second Edition*. Chartered Institute of Ecology and Environmental Management, Winchester.
- CIEEM (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.
- Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London.
- Department for Communities and Local Government (2019) *National Planning Policy Framework (NPPF)* (on-line). Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/60777/2116950.pdf [Accessed on 23/02/2021].
- Hart District Council (2020). *Hart Local Plan (Strategy and Sites) 2032*. Hart District Council [Adopted April 2020].
- HBIC (2021). *Ecological Data Search: Bartley Wood, Hook, Rg27 9UP*. Hampshire Biodiversity Information Centre, 2021.
- ILP – Institute of Lighting Professionals (2018). Guidance Note 08/18 Bats and artificial lighting in the UK. Bats in the built environment series. ILP and the Bat Conservation Trust [on-line].
- Joint Nature Conservation Committee (2010). *Handbook for Phase 1 habitat survey - A technique for Environmental Audit*. JNCC, Peterborough.
- MAGIC - Multi-Agency Geographic Information for the Countryside (2019). *MAGIC Natural England*, Leeds. [on-line]. Available from: www.magic.gov.uk [Accessed on 23/02/2021].
- Stace, C.A. (2010). *New Flora of the British Isles* (3rd Ed.). Cambridge University Press, Cambridge.
- Schwegler (2018). *Bird and Nature Conservation Products* [on-line]. Available from <http://www.schwegler-natur.de> [Accessed on 23/02/2021].

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



Figure 1: Bartley Wood, Hook Habitat Survey Map

Drawn by: KR
On the: 26/02/2021
Not to Scale
Ref: 10402









Phlorum Limited, 12 Hunns Mere Way,
Woodingdean, Brighton, East Sussex,
BN2 6AH
Tel: +44(0)1273 307167
Web: www.phlorum.com
Email: info@phlorum.com



Appendix B

Photographs and Target Notes

Photographs and Target Notes

Photo No.	Feature (Target Note No.)	Photograph of Feature
1	North elevation of building 1 (B1).	 <p>24 Feb 2021 10:46:46 51.2785N 0.9519W Hampshire England</p>
2	Western elevation of building 1 (B1).	 <p>24 Feb 2021 10:51:49 51.27779N 0.9522W Hampshire England</p>
3	Smashed window in northern elevation of building 2 (B2) (TN1).	

4	Smashed window in western elevation of building 2 (B2) (TN2).	 <p>24 Feb 2021 10:57:00 51.2779N 0.9509W Hampshire England</p>
5	Southern elevation of building 3 (B3).	 <p>24 Feb 2021 11:10:07 51.2792N 0.9492W Holt Lane Hampshire England</p>
6	Areas of hedgerow	 <p>24 Feb 2021 10:53:29 51.2777N 0.9516W Hampshire England</p>

7	Small stream on-site.	 <p>24 Feb 2021 10:48:08 51.2783N 0.9524W Hampshire England</p>
8	Small water feature on-site.	 <p>24 Feb 2021 10:46:41 51.2785N 0.9519W Hampshire England</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 Directive⁵ 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;

⁵ 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 sett⁶ or any part thereof;
- ☛ intentionally or recklessly disturb⁷ 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.

⁶ 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

⁷ 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

Hart Local Plan (Strategy and Sites) 2032

112. Any adverse effects on nearby SSSIs (Fleet Pond and the Basingstoke Canal) should be avoided or adequately mitigated. Recreational impacts should be mitigated through

access management measures and infrastructure improvements. The SANG should be designed to maximise its potential as a local alternative to recreation at Fleet Pond. Other measures should include improvements to cycle path provision, with access to Fleet railway station, and improvements to the footpath network at Fleet Pond.

113. There are several Sites of Importance to Nature Conservation (SINCs) within the site. Pyestock (North Grasslands) SINC lies in the northern part of the site. Pyestock (Fairway) SINC is in the southern part of the site and extends beyond the southern boundary. A small section of Bramshot Common SINC extends into the site on the northern boundary. Adverse effects on the respective SINCs should be adequately mitigated or, if necessary, compensated for (for example through translocation off-site).

114. Applications for development must include adequate and proportionate information to enable a proper assessment of the implications for biodiversity. Opportunities to incorporate biodiversity enhancements are encouraged in accordance with Policy NBE4.

Biodiversity

252. Hart has many areas which are noted for their biodiversity value. These areas support a wide variety of species and habitats and form an important part of the network of biodiversity sites within the wider environment. Of note are chalk rivers, tracts of heathland, and parcels of ancient woodland.

253. The importance of these areas is recognised by statutory protection afforded through European Directives (The Thames Basin Heaths Special Protection Area), and UK legislation (National Nature Reserves e.g. Castle Bottom, and Sites of Special Scientific Interest e.g. Odiham Common SSSI, Fleet Pond SSSI and Basingstoke Canal SSSI). In addition, there are sites of local importance: Sites of Importance for Nature Conservation (SINCs)²¹ and Local Nature Reserves (LNRs). These sites will be maintained, with opportunities for enhancement encouraged.

254. All development proposals will be expected to avoid negative impacts on existing biodiversity and provide a net gain, where possible.

255. Sites designated for their international, national, or local importance will continue to be protected. The level of protection will be commensurate with their status within this hierarchy, with appropriate weight given to their importance and the contribution they make to wider ecological networks.

256. Plans or projects proposing development with significant effects on European designated sites (i.e. the Thames Basin Heaths Special Protection Area), will require a Habitats Regulations Assessment to ensure that effects are avoided or adequately mitigated and comply with the Conservation of Habitats and Species Regulations 2017.

257. Proposed development on land within or outside a Site of Special Scientific Interest likely to have an adverse effect on a Site of Special Scientific Interest (either individually

or in combination with other developments) should not normally be permitted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of Sites of Special Scientific Interest.

258. Locally important habitats (Sites of Importance for Nature Conservation and Local Nature Reserves) are also protected, as are irreplaceable habitats including ancient woodland. River corridors are another key feature within Hart that should be protected for their biodiversity and green infrastructure benefits.

259. The overall aim is to achieve a net gain in biodiversity, not merely to avoid a net loss. Developments should therefore aim to achieve best practice and take opportunities to enhance biodiversity where possible. Biodiversity enhancement in and around development should be led by a local understanding of ecological networks, and should seek to include: • habitat restoration, re-creation and expansion; • improved links between existing sites; • buffering of existing important sites; • new biodiversity features within development; and • securing management for long term enhancement.

260. Proposals must be supported by adequate information to enable a proper assessment of the implications for biodiversity. Applicants should approach the Hampshire Biodiversity Information Centre (HBIC) for relevant local data and have regard to the Council's Green Infrastructure Strategy and other relevant strategies when considering how to address biodiversity issues.

The Mitigation Hierarchy

261. If a proposal would result in significant harm to wildlife species and habitats the first question will be whether the impact can be avoided, for example through locating on an alternative site with less harmful impacts.

262. Where significant harm cannot be wholly or partially avoided, the next question is whether it can be minimised by design, or by the use of effective mitigation measures.

263. Where, despite whatever mitigation would be effective, there would still be significant residual harm, the next question is whether, as a last resort, this can be properly compensated for by measures to provide for an equivalent value of biodiversity.

264. Where compensation is required, one route to consider is the potential for biodiversity off-setting. Biodiversity offsets are measurable conservation outcomes resulting from actions designed to compensate for residual adverse biodiversity impacts arising from a development after mitigation measures have been taken. The goal of biodiversity offsets is to achieve no net loss and preferably a net gain of biodiversity.

265. Where a development cannot satisfy the requirements of the mitigation hierarchy, planning permission will be refused.

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>Betula pendula</i>	Silver birch	O	T
<i>Buxus sempervirens</i>	Caucasian boxwood	O	H
<i>Cotoneaster</i> spp.	Cotoneaster spp.	O	H
<i>Elaeagnus pungens</i>	Spiny oleaster	O	H
<i>Eunonymus japonicus</i>	Japanese spindle tree	O	H
<i>Hedera helix</i>	Ivy	O	?
<i>Ilex aquifolium</i>	Holly	O	H
<i>Ligustrum ovalifolium</i>	Californian privet	O	H
<i>Ligustrum sinense</i>	Chinese privet	O	H
<i>Prunus laurocerasus</i>	Cherry laurel	O	H
<i>Quercus robur</i>	English oak	O	T
<i>Symphoricarpos albus</i>	Snowberry	O	H
<i>Viburnum tinus</i>	Laurustinus	O	H

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 atalantoides*) 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
	2F Schwegler Bat Box (General Purpose) with or without Double Front Panel	16 x 16 x 33	<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>
	Chavenage Bat Box	10 x 18 x 38	Small crevice-dwelling bats e.g. pipistrelles.	<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>



Phlorum Limited

Head Office & Registered Office:

Unit 12
Hunns Mere Way
Woodingdean
Brighton
East Sussex
BN2 6AH
T: 01273 307 167

Northern Office:

Ground Floor
Adamson House
Towers Business Park
Wilmslow Road
Didsbury
Manchester
M20 2YY
T: 0161 955 4250

Western Office:

One Caspian Point
Pierhead Street
Cardiff Bay
Cardiff
CF10 4DQ
T: 029 2092 0820

info@phlorum.com
www.phlorum.com

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