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1.0 Non-Technical Summary

1.1 A Preliminary Ecological Appraisal and Building Inspection was carried out at 62 Avenue Road, London, on the 7th November 2016, in order to determine whether any ecological constraints could affect the proposed works for the site.

Development proposals for the site involve the demolition of the existing building to allow for the construction of a two-storey residential dwelling. Specific design proposals were not known at the time of survey.

1.2 The main findings of the survey are as follows:

- The site at 62 Avenue Road comprises a brick built residential property, with an area of hardstanding forming a driveway to the south west and a residential garden to the north east. The site measures approximately 0.13ha.
- 62 Avenue Road is within an urban location, with other residential properties and associated gardens adjoining the site to the north, south and east and Avenue road adjoining the site to the west, separating the site from further residential properties.
- The proposed development site is not subject to any statutory designations. The closest statutory site is St John's Wood Church Grounds Local Nature Reserve (LNR), located approximately 870m south of the development footprint. The development site did not provide any supporting habitat for this designation.
- The site is not subject to any non-statutory designations. The closest non-statutory designations are the London Canals Site of Importance for Nature Conservation (SINC), located approximately 785m south east at its closest point and The Regent's Park SINC, located approximately 760m south east at its closest point. The development site does not provide any supporting habitat for these designations.
- No bat roosts or secondary evidence of bats were identified within the building during the survey, however
 there was no access to any of the loft spaces due to health and safety restrictions and so a thorough
 inspection was not possible.
- The building provided potential access points and roosting opportunities to bats due to a number of raised and missing roof tiles.
- Following the initial habitat assessment, the site was not considered to provide suitable habitat for reptiles,
 dormice, breeding birds, barn owls or badgers and therefore further surveys in respect of these species are
 not considered necessary. Instead, a precautionary approach to works is recommended in order to minimise
 disturbance to bats.
- Details regarding the recommended mitigation measures and site enhancement options are provided in the recommendations section.



2.0 Introduction

Background

2.1 Phlorum Limited was commissioned by Ambiental to undertake a Preliminary Ecological Appraisal and Building Inspection, to inform the potential ecological constraints of proposed future development of 62 Avenue Road, London (hereafter referred to as "the site").

- 2.2 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 provide an assessment of the status of bats within the site
 - to recommend any additional ecological surveys, if required.
- 2.3 As part of the Preliminary Ecological Appraisal, a desktop review, consultations 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.
- 2.4 Recommendations for further ecological surveys are made at the end of the report.
- 2.5 This report has been compiled in accordance with current guidelines (British Standard, 2013 and CIEEM, 2006 & 2013).
- 2.6 Development proposals for the site involve the demolition of the existing building to allow for the construction of a two-storey residential dwelling. Specific design proposals were not known at the time of survey.

Site Description

- 2.7 The site is situated at 62 Avenue Road, which is located in the north eastern extents of St John's Wood, London at National Grid Reference TQ 26940 83927. The site is accessed from the south west via Avenue Road and the survey area measures approximately 0.13 hectares (ha). The site comprises an 'L' shaped brick-built building with an area of hardstanding to the south west and a residential garden to the north east.
- 2.8 62 Avenue Road is within an urban location, with other residential properties and associated gardens adjoining the site to the north, south and east and Avenue road adjoining the site to the west, separating the site from further residential properties.
- 2.9 In the wider surrounds the urban conurbations of St John's Wood extended south and Swiss Cottage was to the north.
- 2.10 A network of tree lines within the locality provide some areas of suitable foraging habitat for bats in addition to providing potential roosting provision for bats.



3.0 Methodology

Desk Study & Consultations

3.1 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 data search was based on available information provided by the following sources:

- Greenspace Information for Greater London (GiGL);
- Multi-Agency Geographical Information for the Countryside (MAGIC, 2016);
- Ordnance Survey mapping; and
- Aerial photography.

Field Survey and Assessment

- 3.2 Phlorum Limited carried out an ecological survey of the site on 7th November 2016. The survey was carried out by a suitably qualified ecologist, Tilly Fitzwebster who has two years professional experience of undertaking ecological surveys. The weather conditions during the survey were dry with partial cloud and no wind.
- 3.3 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 (Appendix B). A list of plant species was compiled, together with an estimate of abundance made according to the DAFOR scale (Appendix D).
- 3.4 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.
- 3.5 Target notes highlighting a particular feature of ecological interest are provided in Appendix A, with associated photographs.
- 3.6 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

- 3.7 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 water bodies offering potential breeding opportunities for great crested newt (*Triturus cristatus*) and the presence of suitable terrestrial habitat including hedgerows and rough grassland;
 - 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 dormouse (Muscardinus avellanarius);
 - The presence of features in, and on, trees, indicating potential for roosting bats Chiroptera, including
 knot and rot holes, loose bark. The presence of features on buildings and any secondary evidence of
 bats including staining, droppings and feeding remains were also looked for; and



• 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.

- 3.8 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.
- 3.9 The purpose of this assessment is to identify whether more comprehensive Phase 2 surveys for protected species or mitigation should be recommended.

Building Inspection

Preliminary Roost Assessment

- 3.10 The inspection of the structure was carried out on 7th November 2016 concurrently with the initial habitat survey, in accordance with good practice guidelines (Collins, 2016).
- 3.11 The interior and exterior of the structures were inspected closely with the aim of identifying the presence of bats and any secondary evidence together with any potential roost sites. Secondary evidence includes droppings, feeding remains, scratch marks and oil and urine staining.
- 3.12 The external inspection comprised a detailed search of all accessible architectural features for bat droppings, urine staining, scratch marks, staining around suitable crevices and feeding remains. A high powered torch was used to illuminate internal features at height, for instance the apex of the roof and associated supporting beams, and these were inspected using close focusing binoculars when required.
- 3.13 In accordance with current standing advice issued by Natural England (2015), the following types of bat roosts were considered during the assessment:
- Day Roost where individual bats, or small groups of males, rest or shelter in the day
- Night Roost where bats rest or shelter at night between foraging in the active period, but rarely during the day.
- Feeding Perch where bats hang to eat or catch their prey or rest at night between feeding sessions.
- *Hibernation Roost* where bats are found during winter. These roosts typically comprise a stable environment where bats can enter torpor; these areas are normally of a constant temperature.
- Transitional or Occasional Roost where individual or small numbers of bats gather at a temporary site before
 and after hibernation
- *Maternity Roost* where babies are born and raised until they are independent. These roosts typically comprise warm stable temperatures to enable breeding females to feed their young and to facilitate juvenile development.

Caveat

Data Search Constraints

3.14 It is important to note that, an absence 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

3.15 Ecological surveys are limited by factors that affect presence of plants and animals such as seasonality.

3.16 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 is considered likely that protected species may be present.

Bat Survey Constraints

- 3.17 Bats are mobile animals which can move roost sites throughout the year. It is possible that surveys carried out in November may miss roosts not occupied until later or earlier in the year. However, where undisturbed, it is generally possible to find secondary evidence of bats inside a building throughout the year.
- 3.18 It is considered that the survey was sufficiently rigorous to assess the ecological value of the site for the purposes of this assessment in relation to the area of the site that were accessible. Loft access was not possible due to health and safety reasons and therefore a thorough inspection of these areas was not possible.



4.0 Baseline Conditions

Aerial Photography and OS Maps

- 4.1 Aerial photography indicates that there is a network of treelines throughout the wider urban landscape.
- 4.2 Aerial photography indicates that there are no ponds located within 500m of the site boundary.

Statutory and Non-Statutory Designated Sites

Statutory Sites

4.3 The proposed development site is not subject to any statutory designations. The closest statutory site is St John's Wood Church Grounds Local Nature Reserve (LNR), located approximately 870m south of the development footprint. The site is designated for being one of the best small open spaces in London for birds. The development site did not provide any supporting habitat for this designation. Belsize wood LNR is also located approximately 1.4km north east of the site, however the development site does not provide any supporting habitat for this designation.

Non-statutory Sites

4.4 The site is not subject to any non-statutory designations. The closest non-statutory designations are the London Canals Site of Importance for Nature Conservation (SINC), located approximately 785m south east at its closest point and The Regent's Park SINC, located approximately 760m south east at its closest point. The London Canals are designated for its wide range of aquatic flora, including rare species such as narrow-leaved water plantain, rigid hornwort and shining pondweed. Whilst Regent's Park is designated for having one of the largest heronries in London, as well as being an important site for breeding and migrating birds. The development site did not provide any supporting habitat for either of these designations.

Habitats

Site Summary

4.5 The site comprised a brick-built residential property, with an area of hardstanding to the south west, forming a driveway, and a poorly managed residential garden to the north east. The main habitats recorded within the site are described below. Additional details are shown on the Habitat Survey Map in Appendix B, and the target notes are listed in Appendix A.

Grassland

4.6 An area of unmanaged amenity grassland was present to the north east of the on-site building. The dominant species included perennial rye-grass (Lolium perenne), Yorkshire-fog (Holcus Lanatus) and meadow fescue (Festuca pratensis). Forbs and herbs occurring occasionally included ribwort plantain (Plantago lanceolata), white clover (Trifolium repens) and cat's ear (Hypochaeris radicata).

Scattered trees

4.7 Scattered trees were present along the north eastern and south eastern boundaries of the garden. Dominant species included blackthorn (Prunus spinosa) and ash (Fraxinus excelsior).



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Ruderal Vegetation

4.8 Patches of ruderal vegetation had developed adjacent to the building and along the stone wall surrounding the site. Dominant species included nettle (Urtica dioica), bramble (Rubus fruticosus agg.) and young ash and sycamore saplings.

Hardstanding

4.9 An area of hardstanding was present to the south west of the building, forming a driveway and along northern side of the building.

Bare Ground

4.10 Small areas of bare ground were present within the north eastern extent of the site.

Building

- 4.11 A single building was present within the survey area which is due to be demolished to allow the construction of a new two-storey residential dwelling; however specific design proposals were unknown at the time of survey.
- 4.12 The surveyed building was an 'L' shaped brick built residential building located centrally within the site. It had a pitched, tiled roof which showed some signs of degradation including missing and broken roof tiles.
- 4.13 There were signs of degradation internally with damp damage to walls and ceiling panels. The building appeared not have been in recent use as a residential dwelling.
- 4.14 The internal loft spaces were inaccessible due to health and safety restrictions and so a thorough inspection of the loft spaces was not possible.

Protected Species

Legislation

- 4.15 Legislation relating to the protected species referred to in this section is included in Appendix C.
- 4.16 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

- 4.17 The data search returned no records for reptiles within 2km of the site.
- 4.18 The north eastern extent of the site was dominated by unmanaged amenity grassland and discrete areas of scrub which would provide limited suitable habitat for reptiles. However, due to the lack of connectivity to suitable habitat in the wider landscape, as a result of the brick wall that surrounds the garden, as well as the limited area of sub-optimal reptile habitat, the presence of reptiles on the site is thought to be unlikely.
- 4.19 The site is considered to provide **low** potential for reptiles.

Great Crested Newt (and other amphibians)

4.20 The data search returned one recent record for great crested newt (Triturus cristatus) within 2km of the site from 2002, which was approximately 1.3km west of the site.



4.21 There are no areas of on-site waterbodies and no ponds located within 500m of the site boundary.

4.22 Areas of on-site scrub and unmanaged grassland provides limited suitable terrestrial habitat for great crested newts and other amphibians. However, aerial photography indicates that there are no ponds located within 500m of the site boundary00m northwest and it is therefore considered unlikely that great crested newts would pass through the habitat due to the lack of connectivity to suitable habitat in the wider surrounds and proximity to suitable breeding ponds. Avenue Road to the west is also likely to post a significant barrier to the movement of great crested newts to and from the site.

4.23 Overall the site was considered to provide negligible potential for great crested newts.

Bats

- 4.24 The data search returned records for nine different species of bat within 2km of the site, including brown longeared (*Plecotus auritus*), serotine (*Eptesicus serotinus*), noctule bat (*Nyctalus noctula*), leisler's bat (*Nyctalus leislerii*), myotis species (*Myotis sp.*), Natterer's (*Myotis nattereri*), Daubenton's bat (*Myotis daunbentonii*), common pipistrelle (*Pipistrellus pipistrellus pipistrellus*), Nathusius pipistrelle (*Pipistrellus Nathusii*), and soprano pipistrelle (*Pipistrellus pygmaeus*).
- 4.25 The closest records for bats were for common and soprano pipistrelle, located approximately 625m north of the site from 2010.
- 4.26 Signs of degradation to the roof, including damaged and missing tiles provided potential bat access points (see Photograph 1 in Appendix A). The internal loft spaces were not inspected during the survey due to restricted as a result of health and safety issues. A thorough assessment of the building's suitability to provide potential bat roosting opportunity was therefore unable to be carried out.
- 4.27 Due to the structure of the building and potential bat access points it is considered that the building could provide features suitable for bats within the loft spaces, however the level of damp within the building and restricted foraging habitat within the locality reduces this likelihood.
- 4.28 Overall the building was considered to provide **low** potential for roosting bats.

Birds

4.29 A number of Red listed Birds of Conservation Concern¹ (BoCC) records were returned by the data search which may utilise habitats within the site. Recorded species include linnet (*Linaria cannabina*), hen harrier (*Circus cyaneus*), cuckoo (*Cuculus canorus*), lesser spotted woodpecker (*Dendrocopos minor*), yellow wagtail (*Motcacilla flava*).

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.



4.30 The site provided limited potential nesting habitat for birds due to the discrete areas of scattered trees and scrub, however due to the lack of favourable habitat for nesting birds such as woodland and hedgerow, it is considered unlikely that this species would utilise the site.

4.31 Overall the site was considered to provide low potential for nesting birds in suitable habitat.

Badgers

- 4.32 Badger records were not returned by the data search due to the sensitive nature of this species. The site did not provide any suitable sett building habitat, however there was potential for foraging opportunities within the onsite residential garden, as well as good connectivity to other residential gardens within the locality.
- 4.33 During the survey no setts or secondary signs of badgers such as footprints or hairs were observed.
- 4.34 The site was considered to provide negligible potential for sett building and low potential for foraging and commuting badgers.

Hazel Dormice

- 4.35 The data search returned no recent records for dormouse (Muscardinus avellanarius) within 2km of the site.
- 4.36 The site was not considered to provide any suitable habitat for dormice. Dormice favour habitat with a range of plant species which provide a food source throughout the year. Favoured species include an abundance of hazel and honeysuckle together with frequently occurring oak and bramble amongst other species.
- 4.37 Overall the site was considered to have negligible potential to support hazel dormouse.

Water Vole

- 4.38 The data search returned no recent records for water vole (Arvicola 11amphibious) within 2km of the site.
- 4.39 The site did not support any suitable habitat for this species. Water voles require riparian habitats and suitable ditches or rivers need to support gently sloping banks suitable for burrow construction together with the presence of aquatic vegetation and areas of open water, providing foraging and cover opportunities for this species.
- 4.40 Overall the site was considered to provide negligible potential to support water voles.

Invasive Non-Native Species (INNS)

- 4.41 The data report returned records of INNS that are listed on Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended) and on the London Invasive Species Initiative (LISI) that could utilise onsite habitats.
- 4.42 Species included wall cotoneaster (Cotoneaster horizontalis), montbretia (Crocosmia pottssii x aurea) and Japanese knotweed (Fallopia japonica).
- 4.43 No invasive species were recorded at the time of the survey.



5.0 Evaluation

5.1 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 (2006) and in accordance with BS 24040:2013. This is provided below.

- 5.2 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 Principal 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.
- 5.3 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

<u>Features of International Importance</u>

- 5.4 Features of International Importance are principally sites covered by international legislation or conventions. The Conservation of Habitats and Species Regulations 2010 (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).
- 5.5 The site is not subject to any international statutory nature conservation designations.

Features of National Importance

- 5.6 Features of national importance include SSSIs which are designated under the Wildlife and Countryside Act 1981 (as amended).
- 5.7 The proposed development site is not subject to any SSSIs.

Features of Metropolitan Importance

5.8 The site is not subject to any sites of metropolitan importance. The closest sites that fall under that category are the London Canals Site of Importance for Nature Conservation (SINC), located approximately 785m south east at its closest point and The Regent's Park SINC, located approximately 760m south east at its closest point.

Features of Borough Importance

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

Features of Local Importance

- 5.10 The site has potential to support low numbers of protected species including roosting and foraging bats.
- 5.11 The site supports features that were considered to be of low value at this level.



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

5.12 The on-site habitats and boundary features are of low value within the immediate vicinity. The site may potentially support low numbers of foraging or roosting bats.

<u>Summary</u>

5.13 Overall on the basis of the survey results and the above criteria, habitats within the site are considered to be of low ecological value within the local area. The site provides suitable habitat to potentially support small numbers of bats in the local area. However, populations of these are unlikely to be significant at a district level.

Local Plan Evaluation

- 5.14 It is considered that the statutory London Plan (2011) contains the following nature conservation policies relevant to the site. These include any relevant 'revised' early minor alterations to the London Plan (2013) and adopted further alterations to the London Plan (2015).
- 5.15 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.

London Plan (2011)

Policy 2.18: Green Infrastructure: The Network of Open and Green Spaces

- To protect, promote, expand and manage the extent and quality of, and access to, London's network of green infrastructure;
- the delivery of green infrastructure will be pursued by working in partnership with all relevant bodies, including across London's boundaries, as with the Green Arc Partnerships and Lee Valley Regional Park
- enhancements to London's green infrastructure should be sought from development and where a proposal falls within a regional or metropolitan park deficiency area; and
- development proposals should incorporate appropriate elements of green infrastructure that are integrated into the wider network and encourage the linkage of green infrastructure and develop new links, utilising green chains, street trees, and other components of urban greening.

Policy 5.3: Sustainable Design and Construction

Major development proposals should meet the minimum standards outlined in the Mayor's supplementary planning guidance and this should be clearly demonstrated within a design and access statement. The standards include measures to achieve other policies in this Plan and include promoting and protecting biodiversity and green infrastructure.

Policy 7.19: Biodiversity and Access to Nature

- To ensure a proactive approach to the protection, enhancement, creation, promotion and management of biodiversity through taking opportunities for positive gains for nature through the layout, design and materials of development proposals and appropriate biodiversity action plans;
- development proposals will not adversely affect the integrity of any European site of nature conservation importance (to include special areas of conservation (SACs), special protection areas (SPAs), Ramsar, proposed and candidate sites) either alone or in combination with other plans and projects; and



- development proposals should:
 - Wherever possible, make a positive contribution to the protection, enhancement, creation and management of biodiversity;
 - o prioritise assisting in achieving targets in biodiversity action plans and/or improve access to nature in areas deficient in accessible wildlife sites; and
 - o not adversely affect the integrity of European sites, and be resisted where they have significant adverse impact on European or nationally designated sites or on the population or conservation status of a protected species, or a priority species or habitat.

Policy 7.21: Trees and Woodlands

- Trees and woodlands should be protected, maintained, and enhanced; and
- trees of value should be retained and any loss as the result of development should be replaced. Wherever
 appropriate, the planting of additional trees should be included in new developments, particularly largecanopied species.



6.0 Conclusions and Recommendations

Conclusions

6.1 The site at 62 Avenue Road comprises a brick built residential property, with an area of hardstanding forming a driveway to the south west and a residential garden to the north east. The site measures approximately 0.13ha.

- 6.2 62 Avenue Road is within an urban location, with other residential properties and associated gardens adjoining the site to the north, south and east and Avenue road adjoining the site to the west, separating the site from further residential properties.
- 6.3 The proposed development site is not subject to any statutory designations. The closest statutory site is St John's Wood Church Grounds Local Nature Reserve (LNR), located approximately 870m south of the development footprint. The development site did not provide any supporting habitat for this designation.
- 6.4 The site is not subject to any non-statutory designations. The closest non-statutory designations are the London Canals Site of Importance for Nature Conservation (SINC), located approximately 785m south east at its closest point and The Regent's Park SINC, located approximately 760m south east at its closest point. The development site does not provide any supporting habitat for these designations.
- 6.5 Development proposals for the site involve the demolition of the existing building to allow for the construction of a two-storey residential dwelling. Specific design proposals were not known at the time of compiling this report.
- 6.6 No bat roosts or secondary evidence of bats were identified within the building during the survey, however there was no access to any of the loft spaces due to health and safety restrictions and so a thorough inspection was not possible.
- 6.7 The building provided potential access points and roosting opportunities to bats due to a number of raised and missing roof tiles.
- 6.8 Following the initial habitat assessment, the site was not considered to provide suitable habitat for reptiles, dormice, breeding birds, barn owls or badgers and therefore further surveys in respect of these species are not considered necessary. Instead, a precautionary approach to works is recommended in order to minimise disturbance to bats.
- 6.9 This should include a pre-works check by an ecologist of any features considered suitable for sheltering bats and, following the precautionary principal, work to remove potentially suitable features should take place under ecological watching brief and outside of the hibernation period when bats are considered least vulnerable. The hibernation period is taken to run between mid to late November and mid-March, weather dependant.
- 6.10 If a bat roost is discovered then a European Protected Species Mitigation Licence (EPSM) Licence in respect to bats will need to be obtained from Natural England in order to facilitate the works. It must be noted that Natural England require three activity and emergence surveys to be undertaken as part of any licence application and they require 30 days to respond to a license once it has been submitted. The application can only be made once full planning permission is in place.
- 6.11 Details regarding the recommended mitigation measures and site enhancement options are provided in the recommendations section.



Recommendations

Bats

6.12 Based on the findings of the initial habitat survey, it is recommended that initial works to the roof of the building commence outside of the hibernation period; when bats are considered least vulnerable. The hibernation period is taken to run between mid to late November and mid-March, weather dependant.

- 6.13 In the week leading up to demolition any lights inside the buildings should be left on overnight to reduce the potential for bats to enter the building to forage and/or roost.
- 6.14 Immediately prior to works commencing, an inspection of the building must be undertaken by a suitably licenced ecologist who will inspect all suitable features for evidence of roosting bats. This should be discussed and arranged with the ecologist in advance of scheduling commencement of the works.
- 6.15 If considered necessary, suitable features will then be removed by hand under guidance from the ecologist to ensure bats are not present. If any bats are found they will be removed by the ecologist, by hand, and placed in a suitable container for release at the site the same day, after dusk. If any bats are found it is important that any suitable roosting features have been removed from the building during that day to ensure that bats cannot re-enter the feature upon release. This will be discussed at the time between the on-site contractors and the ecologist, if necessary.
- 6.16 The remainder of the works can then continue unconstrained by this species.
- 6.17 If bats are subsequently found to be present during the remainder of the work, activities should cease immediately and advice sought from a suitably qualified ecologist.

Bats and Lighting

- 6.18 Different species of bat have been found to react differently to night-time lighting however research has found that generally, all species of bats are sensitive to artificial lighting and that excessive lighting can delay bats from emerging, thus shortening the time available for foraging, as well as causing individuals to move away from suitable foraging grounds or roost sites, to alternative dark areas (Jones, 2000).
- 6.19 Currently the majority of the site is poorly lit at night, particularly the north eastern boundary. New development provides the opportunity to enhance the site's value for foraging bats and to minimise indirect impacts from lighting associated with the new development. This can be achieved by following accepted best practice (Institute of Ecology and Environmental Management 2006, Institute of Lighting Engineers 2009):
 - The level of artificial lighting including flood lighting should be kept to a minimum, particularly around the north eastern boundary vegetation;
 - low pressure sodium lights are a preferred option to high pressure sodium or mercury lamps, and lights should be directed low with minimal light spillage;
 - ideally, some parts of the site (boundary habitats) should be kept dark, preferably at bat emergence (0-1 hour after sunset) and during peak bat activity periods (e.g. 1.5 hours after sunset and 1.5 hours before sunrise); and
 - Artificial lighting should not directly illuminate any potential bat commuting areas such as vegetation along
 the north eastern boundary. Similarly, any newly planted linear features or buffer areas around the site
 boundary should not be directly lit.

<u>Birds</u>

In order to avoid any potential impacts on breeding birds any vegetation clearance, particularly of the area of scrub and scattered trees within the north eastern extent of the site, should be carried out outside of the main bird nesting season which runs from March to August inclusive. If any nests are found during the works, all activities in the vicinity of the nest must cease and the nests should be protected until such time as the young have fledged and left the nest. If any nesting birds are found at any time during clearance works, work should stop immediately and an ecologist consulted.



Habitat Enhancement and Management

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

Compensatory Planting

- 6.21 A combination of grassland, tree and shrub planting could be incorporated into the landscape proposals for boundary habitats and any newly created amenity areas in order to increase species diversity post works.
- 6.22 Planting should include a high proportion of native species. 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.
- 6.23 Areas of newly created grassland should be seeded with an appropriate seed mix suitable to the area. Specific advice should be sought from a landscape architect but there are a range of seed mixes available. A seed mix containing wildflowers that benefits from regular mowing could be used in amenity grassland areas while a wildflower seed mix that thrives from a relaxed mowing regime could be used in edge habitats where annual meadow management to include cutting once or twice annually, before or after the growing season (in early spring and/or Autumn to enable species to flower. This would also provide a more varied sward favoured by reptiles. Woodland edge habitat could also be created within the northern and western extent of the site adjacent to the retained woodland. A grassland mix comprising species more tolerant to shaded environments could thrive here and increase species diversity post works.

Bird and Bat Boxes and Bricks

- 6.24 Additional bird nesting and bat roosting provision could be incorporated into new design proposals. Some recommendations are made below as a guide.
- 6.25 Bat roosting opportunities could be provided through the provision of integral bat boxes. An integral bat box or 'bat brick' could be installed into the facade of the building. For example this could include a Schwegler 2FR tube although there are a number of options on the market. These will provide warm and favourable conditions for crevice roosting species such as pipistrelles. Alternatively external bat boxes could be installed external to the walls or on suitable trees at the site.
- 6.26 The exact location of the bat features should be discussed with an ecologist prior to installation.
- 6.27 Bat boxes should be installed at appropriate locations ideally with a south-east or south-west facing aspect at least 3m from ground level, ideally directly below the eaves if located on a building and a suitable distance away from windows to avoid disturbance.

Other

6.28 It is recommended that an update habitat survey is undertaken if more than 12 months have elapsed between the survey and the point at which any development decisions have been made at the site.



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8.0 Glossary of Terms

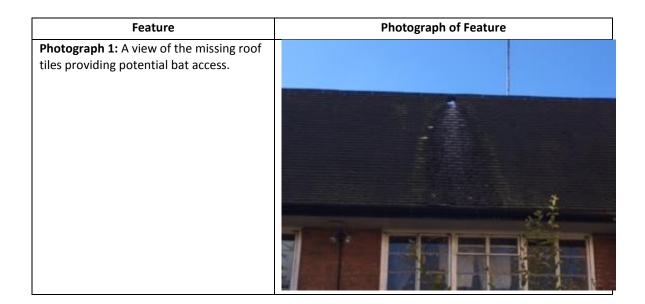
ASSI	Area of Special Scientific Interest
ВАР	Biodiversity Action Plan
ВоСС	Birds of Conservation Concern
BRC	Biological Records Centre
вто	British Trust for Ornithology
ccw	Countryside Council for Wales
СЕН	Centre for Ecology and Hydrology
CIEEM	Chartered Institute of Ecology and Environmental Management
CroW Act 2000	Countryside and Rights of Way Act 2000
cws	County Wildlife Site
DAFOR	Plant abundance scale used to score plants recorded within a surveyed area. Values are: Dominant, abundant, frequent, occasional, rare.
Defra	Department for Environment, Food and Rural Affairs
DfCLG	Department for Communities and Local Government
DoE	Department of the Environment (now Defra)
EC	European Commission; also European Community with reference to the Habitats Directive
EN	English Nature (now Natural England)
EPS	European Protected Species
EPSM	European Protected Species Mitigation
EU	European Union
FCS	Favourable Conservation Status
GB	Great Britain (England, Scotland and Wales, excluding Northern Ireland)
HMSO	Her Majesty's Stationery Office
IDD	International Designations Database



IUCN	The World Conservation Union (International Union for the Conservation of Nature)	
JNCC	Joint Nature Conservation Committee	
Lekking	Where males assemble during the mating season to engage in competitive displays to attract females.	
LNCS	Local Nature Conservation Sites	
LNR	Local Nature Reserve	
LWS	Local Wildlife Site	
MAGIC	Multi-Agency Geographical Information for the Countryside	
NCC	Nature Conservancy Council	
NERC Act 2006	The Natural Environment and Rural Communities Act 2006	
NGO	Non-governmental organisation	
NI	Northern Ireland	
NNR	National Nature Reserve	
Nomenclature	The system of devising of names for plants	
NPPF	National Planning Policy Framework	
NVC	National Vegetation Classification	
ODPM	Office of the Deputy Prime Minister	
OS	Ordnance Survey	
PCAIWCG	Property Care Association Invasive Weeds Control Group	
PEA	Preliminary Ecological Appraisal- formerly referred to as a Phase 1 Habitat Survey	
SAC	Special Area of Conservation	
SINC	Sites of Importance for Nature Conservation	
SNCI	Site of Nature Conservation Importance	
SPA	Special Protection Area	
SSSI	Site of Special Scientific Interest	
UK	United Kingdom (England, Scotland, Wales and Northern Ireland)	



Appendix ATarget Notes and Photographs



Appendix B
Habitat Survey Map



Appendix C Legislation

Legislative Framework

8.1 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.

- 8.2 The objective of the EC Habitats Directive2 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 2010 (as amended) (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).
- 8.3 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.
- 8.4 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.
- 8.5 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 Wild Mammals (Protection) Act 1996

Badger

8.6 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;

intentionally or recklessly cause a dog to enter a badger sett;

intentionally or recklessly damage, destroy or obstruct access to a badger sett3 or any part thereof;

intentionally or recklessly disturb4 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.

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.



² Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.

³ 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

⁴ 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.

8.7 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

- 8.8 Bats are protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). This act protects individuals from:
- 8.9 intentional or reckless disturbance (at any level);
- 8.10 intentional or reckless obstruction of access to any place of shelter or protection; and
- 8.11 selling, offering or exposing for sale, possession or transporting for purpose of sale
- 8.12 In addition, all species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:
- 8.13 deliberate killing, injuring or capturing of Schedule 2 species (all bats);
- 8.14 deliberate disturbance of bat species as to impair their ability:
- 8.15 (i) to survive, breed, or reproduce, or to rear or nurture young; and
- 8.16 (ii) to hibernate or migrate.
- 8.17 deliberate disturbance of bat species as to affect significantly the local distribution or abundance of the species;
- 8.18 damage or destruction of a breeding site or resting place; and
- 8.19 keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.
- 8.20 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

- 8.21 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.
- 8.22 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.
- 8.23 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.



8.24 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 Dormouse

8.25 The hazel dormouse (Muscardinus avellanarius) is fully protected under The Conservation of Habitats and Species Regulations 2010 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.

8.26 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.

8.27 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)

8.28 The following species receive full protection under the The Conservation of Habitats and Species Regulations 2010 (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).

8.29 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.

8.30 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.

8.31 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).

8.32 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

sell, offer or expose for sale, possess or transport for purpose of sale these species, or any part thereof.

8.33 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 Vole

8.34 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.

8.35 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.

Otter

8.36 Otters (Lutra lutra) are fully protected under The Conservation of Habitats and Species Regulations 2010 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.

8.37 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.

- 8.38 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. Red Squirrel
- 8.39 The red squirrel (Sciurus vulgaris) is fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

intentionally (or recklessly in Scotland) kill, injure or take (capture) red squirrels;

intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection;

intentionally or recklessly disturb this species while they are occupying a structure or place used for shelter; and sell, offer or expose for sale, or have in his possession or transport for the purpose of sale, any live or dead red squirrel or part of this species.

White Clawed Crayfish

8.40 The white clawed crayfish (Austropotamobius pallipes) receives partial protection under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). This species is protected under Sections 9(1) and 9(5), making it an offence to:

intentionally take/capture white-clawed crayfish; and

sell, offer or expose for sale, have in possession or transport for the purpose of sale, any live or dead white clawed crayfish or part of this species.

8.41 A conservation licence for the capture and translocation of crayfish may be issued for the purpose of development activities if it can be demonstrated that the activity has been carefully planned and this species considered. The activity must also demonstrate that it contributes to the conservation of the population.

Wild Mammals

- 8.42 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.
- 8.43 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

- 8.44 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.
- 8.45 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.
- 8.46 In addition to the legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010. 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.



8.47 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 2010.

Invasive Plant Species

8.48 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 (Fallopia japonica):

giant hogweed (Heracleum mantegazzianum);

Himalayan balsam (Impatiens glandulifera);

certain species of rhododendron (Rhododendron sp.); and

certain species of cotoneaster (Cotoneaster sp.).

8.49 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.

8.50 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

- 8.51 Special Protection Areas (SPAs): Terrestrial SPA's are afforded protection by The Conservation (Natural Habitats, &c. Regulations 1994 (as amended) an 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).
- 8.52 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.
- 8.53 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
- 8.54 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).
- 8.55 National Nature Reserves: These sites are also designated by the countryside agencies under the Wildlife & Countryside Act 1981 (as amended).

Local Statutory Designations

8.56 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

8.57 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.



8.58 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

8.59 The National Planning Policy Framework (2012) replaces the former PPS9 document and emphasises the need for sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and priority species. An emphasis is also made for the need for ecological networks through preservation, restoration and re-creation. The protection and recovery of priority species is also included as a requirement of planning policy. In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from adverse harm; 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

London Plan (2011)

POLICY 2.18: GREEN INFRASTRUCTURE: THE NETWORK OF OPEN AND GREEN SPACES

- 8.60 "The Mayor will work with all relevant strategic partners to protect, promote, expand and manage the extent and quality of, and access to, London's network of green infrastructure. This multifunctional network will secure benefits including, but not limited to, biodiversity; natural and historic landscapes; culture; building a sense of place; the economy; sport; recreation; local food production; mitigating and adapting to climate change; water management; and the social benefits that promote individual and community health and well-being.
- 8.61 The Mayor will pursue the delivery of green infrastructure by working in partnership with all relevant bodies, including across London's boundaries, as with the Green Arc Partnerships and Lee Valley Regional Park Authority. The Mayor has published supplementary guidance on the All London Green Grid to set out the strategic objectives and priorities for green infrastructure across London
- 8.62 Enhancements to London's green infrastructure should be sought from development and where a proposal falls within a regional or metropolitan park deficiency area
- 8.63 Development proposals should:
- 8.64 incorporate appropriate elements of green infrastructure that are integrated into the wider network; and
- 8.65 encourage the linkage of green infrastructure including the Blue Ribbon Network, to the wider public realm to improve accessibility for all and develop new links, utilising green chains, street trees, and other components of urban greening (Policy 5.10)".

POLICY 5.3: SUSTAINABLE DESIGN AND CONSTRUCTION

- 8.66 "The highest standards of sustainable design and construction should be achieved in London to improve the environmental performance of new developments and to adapt to the effects of climate change over their lifetime.
- 8.67 Development proposals should demonstrate that sustainable design standards are integral to the proposal, including its construction and operation, and ensure that they are considered at the beginning of the design process.
- 8.68 Major development proposals should meet the minimum standards outlined in the Mayor's supplementary planning guidance and this should be clearly demonstrated within a design and access statement. The standards include measures to achieve other policies in this Plan and include promoting and protecting biodiversity and green infrastructure".

POLICY 7.19: BIODIVERSITY AND ACCESS TO NATURE

8.69 "to ensure a proactive approach to the protection, enhancement, creation, promotion and management of biodiversity in support of the Mayor's Biodiversity Strategy. This means planning for nature from the beginning of the development process and taking opportunities for positive gains for nature through the layout, design and materials of development proposals and appropriate biodiversity action plans.



8.70 Any proposals promoted or brought forward by the London Plan will not adversely affect the integrity of any European site of nature conservation importance (to include special areas of conservation (SACs), special protection areas (SPAs), Ramsar, proposed and candidate sites) either alone or in combination with other plans and projects. Whilst all development proposals must address this policy, it is of particular importance when considering the following policies within the London Plan: 1.1, 2.1-2.17, 3.1, 3.3, 5.14, 5.15, 5.17, 5.20, 6.3, 7.14, 7.15, 7.25, and 7.26. Whilst all opportunity and intensification areas must address the policy in general, specific locations requiring consideration are referenced in Annex 1.

- 8.71 Development proposals should:
- 8.72 wherever possible, make a positive contribution to the protection, enhancement, creation and management of biodiversity
- 8.73 prioritise assisting in achieving targets in biodiversity action plans (BAPs) set out in Table 7.3 and/or improve access to nature in areas deficient in accessible wildlife sites
- 8.74 not adversely affect the integrity of European sites, and be resisted where they have significant adverse impact on European or nationally designated sites or on the population or conservation status of a protected species, or a priority species or habitat identified in a UK, London or appropriate regional BAP or borough BAP.
- 8.75 On Sites of Importance for Nature Conservation development proposals should:
- 8.76 give the highest protection to sites with existing or proposed international designations24 (SACs, SPAs, Ramsar sites) and national designations25 (SSSIs, NNRs) in line with the relevant EU and UK guidance and regulations
- 8.77 give strong protection to sites of metropolitan importance for nature conservation (SMIs). These are sites jointly identified by the Mayor and boroughs as having strategic nature conservation importance
- 8.78 give sites of borough and local importance for nature conservation the level of protection commensurate with their importance.
- 8.79 When considering proposals that would affect directly, indirectly or cumulatively a site of recognised nature conservation interest, the following hierarchy will apply:
- 8.80 avoid adverse impact to the biodiversity interest
- 8.81 minimize impact and seek mitigation
- 8.82 only in exceptional cases where the benefits of the proposal clearly outweigh the biodiversity impacts, seek appropriate compensation".
 - POLICY 7.21: TREES AND WOODLANDS
- 8.83 "Trees and woodlands should be protected, maintained, and enhanced, following the guidance of the London Tree and Woodland Framework (or any successor strategy). In collaboration with the Forestry Commission the Mayor will produce supplementary guidance on tree strategies to guide each borough's production of a tree strategy covering the audit, protection, planting and management of trees and woodland. This should be linked to the borough's open space strategy.
- 8.84 Existing trees of value should be retained and any loss as the result of development should be replaced following the principle of 'right place, right tree'29. Wherever appropriate, the planting of additional trees should be included in new developments, particularly large-canopied species'.



Appendix D
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: c=clumped, e=edge only, 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
Acer pseudoplatanus	Sycamore	0	
Bellis perennis	Daisy	F	
Festuca pratensis	Meadow fescue	0	
Fraxinus excelsior	Ash	F	
Holcus lanatus	Yorkshire-fog	0	
Hypochaeris radicata	Cat's-ear	R	
Lolium perenne	Perennial rye-grass	D	
Plantago lanceolata	Ribwort plantain	F	
Prunus spinosa	Blackthorn	F	
Rubus fruticosus agg.	Bramble	0	
Taraxacum sp.	Dandelion	F	
Tilia sp.	Lime	R	
Trifolium repens	White clover	0	
Urtica dioica	Common nettle	R	

Appendix E Suggested Compensatory Planting

SPECIES OF WILDLIFE VALUE

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.

<u>Large Shrubs</u>

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.

Butterfly bush (Buddleja spp.), (B. alternifolia), (B. globosa) NN

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

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

Nasturtium (Tropaeolum majus) NN

Submerged Aquatics (acting as oxygenators)

Water crowfoot (Ranunculus aquatilis) N

Spiked water milfoil (Myriophyllum spicatum) N

Water starwort (Callitriche stagnalis) N

Rigid hornwort (Ceratophyllum demersum) N

Curly pondweed (Potamogeton crispus) N

Floating Aquatics

Yellow water lily (Nuphar lutea) (can require control) N

White water lily (Nymphaea alba) (can require control) N

Bog-bean (Menyanthes trifoliata) N

Amphibious bistort (Polygonum amphibia) N

<u>Marginal</u>

Yellow iris (Iris pseudacorus) N

Water mint (Mentha aquatica) N

Water plantain (Alisma plantago-aquatica) N

Arrowhead (Sagittaria sagittifolia) N

Water forget-me-not (Myosotis scorpioides) N

Lesser reedmace (Typha angustifolia) N

Flowering rush (Butomus umbellatus) N

Branched bur-reed (Sparganium erectum) N

Purple loosestrife (Lythrum salicaria) N

Floating sweet-grass (Glyceria fluitans) N

Reed sweet-grass (Glyceria maxima) N

