17 June 2020

13 Netherhall Gardens

Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment

Report Number:	13154_R01a_RB_HB
Author:	Rebekah Baker MSc
Checked:	Nathan Jenkinson MSc MCIEEM

Tyler Grange

Birmingham · Cotswolds · Exeter · London · Manchester

Contents

Appendices

Plan

Summary

S1 This report has been prepared by Tyler Grange on behalf of Re Creo Netherhall Gardens Ltd. It sets out the findings of a Preliminary Ecological Appraisal (PEA) and Preliminary Bat Roost Assessment (PBRA) at a parcel of land at 13 Netherhall Gardens (OS Grid Reference (TQ 26321 84976), hereinafter referred to as the 'site'. The purpose of this report is to set out the ecological baseline for Phase 2 of the development at the site and outline any further ecological considerations that are required in the context of future development at the site.

S2 The site is currently made up of a residential building that is under property guardianship, associated garden and old underground bomb shelter. The site is situated on the residential street of Netherhall Gardens, in South Hampstead, London.

S3 The site is not covered by nor adjacent to any sites that are subject of statutory or non-statutory protection and no such sites are likely to be affected by development at the site.

S4 The habitats found on site are considered to be of either negligable ecological importance or of ecological importance within the site only and where such habitats are proposed to be lost, where loss cannot be avoided, it is considered that the impacts could be mitigated for and enhancements can be implemented through ecologically minded landscaping.

S5 Six onsite trees were considered to have potential for roosting bats, three of which require further survey work to determine the likely presence/absence of a bat roost. The remaining three will be required to be soft felled under supervision of an Ecological Clerk of Works (ECoW). It is considered that the loss of those trees with potential roost features can be mitigated for through incorporating bat roosts within the scheme design and that the site can be enhanced for bats through native planting and the establishment of a native hedge.

S6 Precautionary checks for nesting breeding birds, are recommended by an ECoW, if buildings are removed during the core nesting bird season (March – August, inclusive), to prevent death or injury of individual by the proposed works. However, it should be noted that nests may be found at any time of year. Should nesting birds be present with young or eggs, an appropriate buffer should be erected, and the nest checked periodically by an ECoW until it is clear the young have fledged.

S7 It is recognised that a substantial amount of tree loss has been proposed within the Arboricultural Impact Assessment Report (200506-1.2-13NGL(P2)-AIA&TPS-LF) due to multiple constraints including the required mechanical removal of Japanese knotweed and health and safety issues. A number of recommendations have been made in light of this within this report, including the retention of deadwood from felled trees to create habitat piles, replacement native tree planting and the establishment of a new native hedgerow.

S8 Where impacts are predicted, it is considered that these can be mitigated for appropriately and that the proposals present the opportunity to incorporate ecological enhancements to the site. Creating new habitat and improving opportunities for fauna, which may be at the site, will be in line with the London Plan (2016), the draft London Plan (2019) and the London Borough of Camden Local Plan (2017). New planted flora should, where possible, be native and of local stock. In addition, enhancements for specific species groups could be provided post-construction including bird and bat boxes to increase the number of nesting and roosting sites across the site, respectively.

Section 1: Introduction, Context and Purpose

Introduction

1.1. This report has been prepared by Tyler Grange Ltd on behalf of Re-creo Netherhall Gardens Ltd. It sets out the findings of a Preliminary Ecological Appraisal (PEA) and Preliminary Bat Roost Assessment (PBRA to inform a planning application for proposals at 13 Netherhall Gardens, hereinafter referred to as 'the site'.

Context

1.2. 13 Netherhall Gardens is subject to a phased development. Phase 1 of the development has had planning permission granted, which covers proposed works to the residential building, (planning reference: 2020/0971/P/) which includes the erection of 2 x dormers to rear roof slope; removal of 3 x existing dormers; removal of external staircase; alterations to fenestration; demolition of the existing ground floor extension on the southern side of the building.

1.3. As part of this previous application, the residential building B1 and the underground bomb shelter B2, were assessed as having moderate and low potential for roosting bats, respectively (18111 Netherhall Gardens Preliminary Ecological Appraisal Report). Bat surveys were carried out in September and August 2018, during which no emergences were confirmed from either of the buildings (18111 Netherhall Gardens Bat Survey Report).

1.4. Phase 2 of the development proposes the extension and reconfiguration of the lower ground floor, the construction of a new basement level, external soft landscaping and planting, and associated works. Taking into account that the appropriate bat survey work has already been carried out to inform Phase 1 of the development and that the works relating to the residential building have planning permission granted, the residential building was not considered for further survey work in relation to Phase 2 of the development.

1.5. The purpose of the report is to inform planning for Phase 2 of the development, which as detailed above includes proposals for the extension and reconfiguration of the lower ground floor, the construction of a new basement level, external soft landscaping and planting, and associated works.

1.6. The 'study area' extends to a 10km radius for internationally designated sites, 2km for nationally designated sites and 1km for local wildlife site designations and protected species data.

1.7. This report should be read in line with the **Habitat Features Plan** (**13154/P01a**).

Purpose

1.8. This report:

- Uses available background data and results of field surveys to describe and evaluate the ecological features present within the likely 'zone of influence' (ZoI)[1] of the proposed development;
- Describes the actual or potential ecological issues and opportunities that may arise as a result of the sites' future redevelopment;

[1] Defined as the area over which ecological features may be subject to significant effects as a result of activities associated with a project and associated activities (CIEEM, 2018).

- Where appropriate, makes recommendations for mitigation of adverse effects and ecological enhancement, to ensure conformity with policy and legislation listed in **Appendix 1**; and
- Identifies further work required to inform a future planning application if relevant.

1.9. This assessment and the terminology used are consistent with the 'Guidelines for Ecological Impact Assessment in the UK and Ireland' (CIEEM, 2018).

Section 2: Methodology

Data Search

2.1. The aim of the data search is to collate existing ecological records for the site and the surrounding area. Obtaining existing records is an important part of the assessment process as it provides information on issues that may not be apparent during a single survey, which by its nature provides only a 'snapshot' of the ecology of a given site.

2.2. The data search covered 10km for internationally designated sites, 2km for nationally designated sites and 1km for non-statutory designated sites and protected species and was conducted in April 2020. The following organisations and individuals were contacted and, where relevant, the information provided has been incorporated with acknowledgement within this report:

- Greenspace Information for Greater London (GiGL) was contacted for details of non-statutory sites and protected and priority species (data requested on 1st April 2020 and received on 6th April 2020);
- The Multi-Agency Geographic Information for the Countryside (MAGIC) website[2] was accessed for information on the location of statutory designated nature conservation sites (accessed April 2020); and
- The Camden and London council websites were consulted for details of relevant local planning policies and supplementary planning guidance (accessed April 2020).

Extended Phase I Habitat Survey

2.3. An 'extended' Phase I habitat survey was undertaken on 6th April by Robert Sinclair, an experienced field ecologist and Natural England level 2 Bat Licence (2017-30685-CLS-CLS Survey Level 2 (CL18)). The technique was based upon Phase I survey methodology (JNCC, 2010). This 'extended' Phase I technique provides an inventory of the habitat types present and dominant species.

2.4. Note was taken of the more conspicuous fauna and any evidence of, or the potential for, the presence of protected notable flora and fauna. A basic inventory of the habitats and a representative species list for each site was produced. Where access allowed, adjacent habitats were also considered in order to assess the site within the immediate landscape and to provide information with which to assess possible impacts within the immediate landscape surrounding the site.

2.5. The weather conditions for the survey were dry with sunny intervals and a temperature of 17°C.

2.6. Using the above method, the site was classified into areas of similar botanical community types with a representative sample of those species present at the time of the survey being described.

Preliminary Bat Roost Assessment – Buildings & Trees

2.7. A preliminary bat roost assessment (PBRA) of the buildings and trees present within the site was undertaken to assess their potential to support roosting bats. This survey was undertaken alongside the 'extended' Phase 1 habitat survey. The surveys followed standard methodologies (Mitchell-Jones, A.J., 2004; Mitchell-Jones, A.J. and McLeish, A.P., 2004; Collins, 2016) which are described below.

[2] http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx

2.8. The PBRA for buildings comprised an external, and where possible, an internal inspection of all buildings present on-site to assess their potential to support roosting bats. In summary, this entailed the following:

- A visual inspection of the exterior, and interior where possible, of the buildings at the site was undertaken on 6th April 2020, examining features such as brickwork, cladding, and roofs for evidence of use by bats, including the presence of bat droppings, feeding remains, staining from fur-oil or urine, or even bats themselves; and
- A number of factors were considered including the presence of features suitable for use by crevice dwelling bats, proximity to foraging habitats or cover, and potential for disturbance from lighting and other sources.

2.9. The PBRA for trees comprised a ground level inspection of all trees present on the site on 6th April 2020 to determine the potential of each tree to support roosting bats. During this survey, Potential Roost Features (PRFs) that may be used by bats, as identified within the BCT Good Practice Guidelines (Collins, 2016), were sought. These included the following:

- Woodpecker holes, rot holes, knot holes arising from naturally shed branches and man-made holes;
- Hazard beams and other vertical or horizontal cracks and splits (such as frost-cracks) in stems or branches;
- Partially detached platey bark;
- Cankers;
- Other hollows or cavities, including butt-rots;
- Partially detached ivy with stem diameters in excess of 50mm; and
- Bird, bat or dormouse boxes.

2.10. Evidence of the presence of bat roosts was also sought. These signs include:

- Bat droppings in, around or below a PRF;
- Odour emanating from a PRF; and
- Visible staining below a PRF.

2.11. The potential of each building or tree at the site and immediately adjacent to the site to support roosting bats has been categorised against the criteria described in **Table 2.1**.

Table 2.1 – Roost Assessment Criteria (adapted from Collins, 2016)

Suitability	Description of Roosting Habitats
Negligible	Negligible habitat features on-site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.

Suitability	Description of Roosting Habitats
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection conditions and surrounding habitat.

Limitations

2.12. Due to the current government advice regarding Covid-19, internal inspections of buildings are not being undertaken during PBRA assessments. However, as detailed above, impacts to the existing structure do not form part of this planning application and so this is not considered to present a constraint.

2.13. Owing to the timing of the surveys, some plant species may not have been visible. This may have a minor impact on the classification of habitat areas at the site. However, given the nature of the habitats present, this limitation is not considered likely to affect the conclusions of this report.

Evaluation

2.14. The evaluation of habitats and species is defined in accordance with published guidance (CIEEM, 2018). The level of importance of specific ecological features is assigned using a geographic frame of reference, with international being most important, then national, regional, county, district, local and lastly, within the site boundary only.

2.15. Evaluation is based on various characteristics that can be used to identify ecological features likely to be important in terms of biodiversity. These include site designations (such as SSSIs), or for undesignated features, the size, conservation status (locally, nationally or internationally), and the quality of the ecological feature. In terms of the latter, quality can refer to habitats (for instance if they are particularly diverse, or a good example of a specific habitat type), other features (such as wildlife corridors or mosaics of habitats) or species populations or assemblages. In the case of the evaluation of the value of fauna at the site, an assumed valuation of each ecological feature has been given based on the habitats observed at the site during the initial survey. Where further surveys are required, the valuation may be subject to variation following the interpretation of survey results.

Quality Control

2.16. All ecologists at Tyler Grange Ltd are members of CIEEM and abide by the Institute's Code of Professional Conduct.

Section 3: Ecological Features, Evaluation, Potential Impacts and Mitigation

Context

3.1. The site is 0.11 ha in size and currently contains one residential building, an underground bomb shelter and associated landscaping and trees (see **Figure 3.1** below). The residential building is split into eight flats which are currently under property guardianship.

3.2. The site located in the South Hampstead area (TQ 26321 84976) and is boarded by Netherhall Gardens road on the eastern boundary and residential housing and gardens on the north, west and southern boundaries.

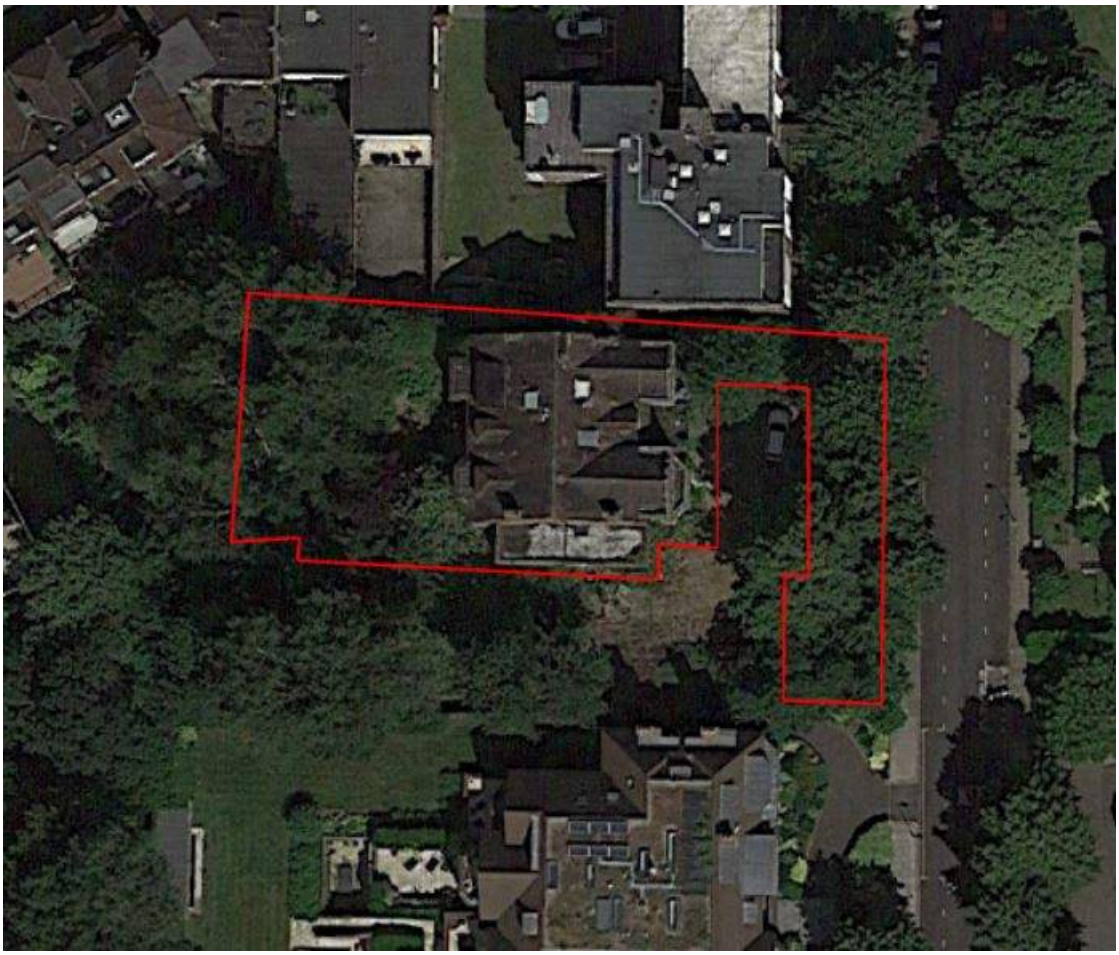


Figure 3.1: Aerial photo of the site and indicative boundary of Phase 2.

Proposed Development

3.3. The proposals are for the extension and reconfiguration of the lower ground floor, the construction of a new basement level, external soft landscaping and planting, and associated works.

3.4. The potential impacts at these sites as a result of the proposed works are set out below, with reference to relevant legislation and planning policy, which is summarised in **Appendix 1**.

Potential Impacts, Requirement for Mitigation and Enhancement Opportunities

3.5. Both the Countryside and Rights of Way (CRoW) Act 2000 and the Natural Environment and Rural Communities (NERC) Act 2006 give the importance of conserving biodiversity a statutory basis, requiring government departments (which includes Local Planning Authorities) to have regard for biodiversity in carrying out their obligations (which includes determination of planning applications) and to take positive steps to further the conservation of listed species and habitats. These articles of legislation require the Borough of Camden to take measures to protect species or habitats from the adverse effects of development, where appropriate, by using planning conditions or obligations. Planning authorities should refuse permission where harm to the species or their habitats would result, unless the need for, and benefits of, the development clearly outweigh the harm.

3.6. Where there are potential impacts to the ecological features identified within the ZoI of the site, at either the construction or operational phases of the development, these are described below. Where impacts would trigger legislation or planning policy (as set out in **Appendix 1**), the requirement for mitigation is noted.

3.7. The mitigation and enhancement strategy takes account of national planning policy (NPPF) which requires that the planning system should contribute to and enhance the natural and local environment minimising impacts on biodiversity and providing net gains as well as local planning policy, the key polices of which are provided in **Appendix 1.**

Protected Sites

Statutory Designated Sites

3.8. There is one European site designation within 10km of the site, one Site of Special Scientific Interest (SSSI) and three Local Nature Reserves (LNR) within 2km of the site. The potential impact pathways (if any) from the proposed development, along with any required avoidance, mitigation and consultation with reference to guidance from the London and Camden Council websites are discussed below in relation to the designated sites in **Table 3.1**:

3.9. The site is identified as being within a SSSI Impact Risk Zone (IRZ). However, only proposals for wind, solar, oil and gas, minerals, large infrastructure, rural residential and combustion, waste or composting need to be considered. The site in question does not comprise any one of these listed developments.

Table 3.1: Statutory sites with potential impact pathways and (where required) proposed mitigation consultation, including European Designated Sites within 10km of the site. (SAC = Special Area of Conservation).

Site Name and Designation (Distance and Direction from the Site)	Relevant Legislative Protection	Reason for Designation	Ecological Importance	Potential Impact Pathways	Required Avoidance, Mitigation and Consultation	Relevant Local Planning Policies
Lee Valley SPA (8.3km north east)	Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora The Conservation of Habitats and Species Regulations (CHSR; 2017)	*Supports populations of European importance of the following species listed on Annex I of the Directive* Bittern *Botaurus stellaris* *Supports populations of European importance of the following migratory species* Gadwall *Anas strepera* Shoveler *Anas clypeata*	Given that this site is designated as a SPA and Ramsar, Lee Valley is considered to be of **international ecological importance**	Recreational Pressure	The site is located within 10km of the Lee Valley SPA. It is considered that any increase in recreational pressure that may occur as a result of the proposals would not likely have an impact on the qualifying features of the SPA. Moreover, as set out in the most up to date draft London Plan Habitat Regulations Assessment Modification Update (2019)[3], there is no evidence that recreational disturbance if impacting wintering numbers of gadwall and shoveler. In addition to this, the Lee Valley SPA is managed to restrict public access to sensitive areas of the site at sensitive times of year, which further reduced the possibility of the proposals having a negative impact on the qualifying species. The land use will remain the same and just three more flats will be added to the site taking the total of eight flats to eleven. As the property has housed live-in guardians since 2016 it is considered that any indirect impacts that the proposals may have on the Lee Valley SPA, which are considered unlikely, will not change to a large degree upon the completion of the works.	London Plan Policy 7.19, Draft London Policy G6
Hampstead Heath Woods SSSI (1.9km north east)	Wildlife and Countryside Act 1981 (WCA)	A long-established high forest woodland within the Hampstead Heath park with an abundance of old and over mature trees and deadwood, which provides habitat for a range of invertebrate species including nationally rare jewel beetle *Agilus pannonicus*.	Given that this site is designated as a SSSI, Hampstead Heath is considered to be of **National ecological importance**	Recreational Pressure Air pollution	<u>Recreation</u> As detailed within the Hampstead Heath Management Strategy 2018-2028[4] the heath is managed with respect to both the ecology and recreation of the site. It is acknowledged that the site is an important green space for London's residents and that both the recreational and ecological value of the site can be managed side by side. As such, it is considered that the development would not have any considerable negative impact on the Hampstead Heath Woods SSSI with regards to an increase in recreational pressure. <u>Air pollution</u> As mentioned above the land use will remain the same and the number of units will increase by three post-development and as such, any additional traffic on the road as a result of the proposals will be very small and any impact is likely to be negligable. Moreover, the deadwood habitat that the nationally scare jewel beetle depends on is not impacted by air pollution,	
Belsize Wood LNR (1.22km east)	National Parks and Access to the Countryside Act 1949	The site has a rich variety of species, especially of insects. High tree and shrub diversity. Ground level plants include butcher's-broom *Ruscus aculeatus,* enchanter's-nightshade *Circaea lutetiana* and nettles *Urticaceae.* A number of common birds nest there.	Given that the site is designated as a Local Nature Reserve, Belsize Wood is considered to be of **Local ecological importance**	Recreational Pressure Air Pollution	Overall, as stated above, as the land use is remaining the same and the number of tenants is unlikely to change considerably, any indirect impacts the site currently places on these Local Nature Reserves, is thought unlikely to change as a result of the proposals. Further to the above, these three sites are managed for recreation and Belsize Wood and Adelaide LNRs have restricted access and Westbare Copse has some level of restricted access. As such, any change in the level of recreational pressure as a result of the proposals, are unlikely to pose any impact on these sites.	
Adelaide LNR (1.44km south east)	National Parks and Access to the Countryside Act 1949	The reserve supports a summer meadow, pond, areas of scrub and small woodland.	Given that the site is designated as a Local Nature Reserve, Belsize Wood is considered to be of **Local ecological importance**			
Westbere Copse LNR (1.81km W)	National Parks and Access to the Countryside Act 1949	The site supports spring and summer meadows, woodland, pond, stag beetle loggeries and a bird feeding station. 25 species of birds have been recorded and 150 species of plants. Frogs *Rana temporaria*, toads *Bufo* and newts are also found here.	Given that the site is designated as a Local Nature Reserve, Belsize Wood is considered to be of **Local ecological importance**			

[3] https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan/intend-publish-london-plan-2019
[4] https://www.cityoflondon.gov.uk/things-to-do/green-spaces/hampstead-heath/Pages/consultation.aspx

Non-statutory Designated Sites

3.10. There are eight Sites of Importance for Nature Conservation (SINC) within a 1km search radius from the site as shown in Table 3.2 below. The table also shows the potential impact pathways (if any) from the proposed development for each of the SINCs, along with any required avoidance, mitigation and consultation with reference to relevant guidance from the London and Camden council websites.

3.11. SINCs are selected on the basis that they meet the criteria for SINC selection. There are three tiers for grading for sites, given below in order of highest to lowest importance.

- Sites of Metropolitan Importance;
- Sites of Borough Importance (Grade I and Grade II); and
- Sites of Local Importance.

Table 3.2: Non-Statutory sites with potential impact pathways and (where required) proposed mitigation consultation, including SINCs within 1km of the site.

Site Name and Designation (Distance and Direction from the Site)	Reason for Designation	Ecological Importance	Potential Impact Pathways	Required Avoidance, Mitigation and Consultation	Relevant Local Planning Policies
Frognal Court wood SINC (0.59km north)	This small secondary woodland is private but is used by residents. There is a diverse array of tree species which provides an important habitat for bird communities.	Borough Grade II	Recreational Pressure Rubbish Dumping	Due to the distance between the SINCs and the site, direct impacts as a result of the proposals can be ruled out. As discussed in Table 3.1 the land use the site is remaining the same and with an increase in three residential units, any indirect impacts on SINCs relating to recreational pressure and rubbish dumping are considered not to be affected by the proposals. Moreover, Frognal Wood Court SINC is under private ownership and 160 Mill Land Community Garden is currently used for community workshops and is therefore already managed for recreational pressure. Overall, it is considered that the proposals will not have any perceivable impact on these two sites.	London Plan Policy 7.19, Draft London Policy G6
160 Mill Lane Community Garden SINC (0.97km north west)	A small community garden with Amenity grassland, planted shrubbery, Pond/Lake, Scattered trees, Scrub, Tall herbs. The pond has a healthy population of smooth newts. Dead wood and a diverse plant community provide important invertebrate habitat. The site is open to the public during daylight hours.	Local			
Frognal Lane Gardens SINC (0.53km north west)	A small private communal garden with Amenity grassland, Planted shrubbery, Pond/lake, Scattered trees, Scrub. The site has a good number of trees. Nest boxes have been put up and the site supports numerous birds. The area is managed to promote invertebrate populations.	Local	None	As detailed above, these sites are located at least 0.5km from the site, meaning direct impacts can be ruled out, furthermore these sites are all restricted from public access and so it is considered that no indirect impacts will result from the proposals.	London Plan Policy 7.19, Draft London Policy G6
Broadhurst Gardens Meadow SINC (0.56km south west)	The communal grounds of houses in Broadhurst Gardens, with a good meadow with Scattered trees, Scrub, and Semi-improved neutral grassland. There site is considered to support a high invertebrate, tree and flower diversity. There is no public access to this site.	Borough Grade II			
Hampstead Parish Churchyard SINC (0.58km N)	Fine churchyard with mature trees where the painter John Constable is buried with Acid grassland, planted shrubbery, Scattered trees, Tall herbs, Vegetated wall/tombstones. There is a high diversity of mature tree species, grassland and herbaceous species.	Borough Grade I			

Green Triangle SINC (0.88km north east)	A private community garden used by the surrounding residents with Amenity grassland, planted shrubbery, Scattered trees, Secondary woodland, Tall herbs. A diverse array of mature trees form a high canopy and there is a diverse array of native and exotic flowers and shrubs. The plant diversity and dead wood on site provide valuable invertebrate habitat.	Borough Grade II			
Hampstead Green SINC (0.88km north east)	A small private grassland in an urbanized area managed as a wildflower meadow with Hedge, Scattered trees, Semi-improved neutral grassland, Tall herbs. The site is closed to the public but can be viewed from the surrounding footpaths.	Local			
West Hampstead Railsides, Medley Orchard and Westbere Copse Local Nature Reserve (0.84km north east)	These wooded railsides include a two nature reserve and an old orchard. Designated for Orchard, Scattered trees, Scrub, Secondary woodland, Semi-improved neutral grassland and tall herbs which support important communities of invertebrates and birds. There is currently no public access to this site.	Borough Grade I			

Habitats and Fauna

3.12. For each ecological feature at the site, the baseline survey information, evaluation, requirement for further surveys, impacts, avoidance, mitigation and enhancement measures are presented below in a series of tables. These tables are presented, below.

Habitats and Flora

3.13. The habitats present across the site are summarised below in **Table 3.3**, along with a description of the composition of the main plant species present and an assessment of their ecological importance. Works are likely to result in the loss of all habitats described in **Table 3.3**. As such, **Table 3.3** also outlines the ecological importance of each habitat, the likely impacts and mitigation required (where appropriate) to offset the loss of habitats. Recommended enhancements are also given in the table, in order to demonstrate how the development could deliver a net gain for biodiversity, in line with relevant policy.

3.14. The location of the habitats presented below habitats are shown on the **Habitats Features Plan** (**13154/P01a**). All corresponding site photos are presented below.

Table 3.3: Habitat descriptions, evaluations of ecological importance, potential retention/loss and (where required) proposed mitigation and enhancement measures

Habitat Present	Habitat Description	Photo Reference	Ecological Importance	Potential Retention/Loss	Avoidance, Mitigation and Enhancement Measures	Relevant Local Planning Policies
Bare Ground	There is an area of bare ground located directly inf front of building B1 and between the northern boundary and building B1.	Photo 1	The bare ground itself does not support any notable flora or fauna and as such is considered to be of **negligible ecological importance.**	Loss of all bare ground.	None.	N/A
Buildings and Hardstanding	The site contains one residential unit (building B1) and an old underground bomb shelter (building B2).	Photo 1	The buildings are of no inherent ecological value and so are considered to be of **negligible ecological importance** Although the buildings themselves have no inherent value for biodiversity they may possess features that have the potential to support roosting bats, which is further discussed in **Table 3.4.**	Retention of residential building and loss of bomb shelter.	None.	N/A
Continuous Scrub	There is a discrete area of bramble scrub located at the western site boundary. The species composition includes native species such as bramble *Rubus fruticosus and* elder *Sambucus nigra* and the non-native species Russian vine *Fallopia baldschuanica*. There is also a smaller area of scrub located to the south east of the site which consists of bare ground with some holly *Ilex Aquifolium*, ivy *Hedra helix*, bramble, Spanish bluebell *Hyacinthoides hispanica* and sycamore *Acer sp.* and horse chestnut *Aesculus hippocastanum* saplings.	Photo 2 and 3	The native species found within the continuous scrub are considered to be of some value to the biodiversity resource of the site but are common and widespread and so are considered to be of **ecological importance within the site only.**	Loss of all continuous scrub.	Replacement planting to compensate for the loss of native species, through incorporating native herb, shrub and woody species into the scheme design. The site could be enhanced further through the creation of green walls and through the establishment of the proposed native hedgerow on the eastern boundary.	WCA, London Plan Policy 5.10 & 5.11, Draft London Plan Policy G1, Camden Planning Guidance: Biodiversity (March 2018)
Ephemeral/short perennial	There is an area of ephemeral/short perennial vegetation at the south west of the site which contains species including, broadleaved dock *Rumex obtusifolius*, creeping buttercup *Ranunculus repens*, red fescue *Festuca rubra*, common ragwort *Senecio jacobaea*, forget me not *Myosotis scorpioides*, common nettle *Urtica dioica*, common daisy *Bellis perennis* and wood avens *Geum urbanu* and cleavers *Gallum sp.*.	Photo 4	The native species found within the ephemeral/short perennial are common and widespread through the wider landscape and are considered to be of **ecological importance within the site only.**	Loss of all ephemeral/short perennial	As with the loss of onsite scrub, replacement planting to compensate for the loss of native species, through incorporating native herb, shrub and woody species into the scheme design.	London Plan Policy 5.10 & 5.11, Draft, Draft London Plan Policy G1, Camden Planning Guidance: Biodiversity (March 2018)
Introduced shrub	There is one discrete area of introduced shrub at the north of the eastern boundary which is made up of herbaceous border planting but contains some native species such as holly and hazel.	Photo 5	Although some native species are present within the herbaceous border, ornamental species such as those in the site are common in the wider landscape and provide little benefit to biodiversity. As such, the herbaceous planting considered to be of **negligible ecological importance.**	Loss of herbaceous border	Loss of the native species within this habitat can be mitigated for through platin more native woody and shrubby species to provide increased foraging opportunities for insects and birds, as described above for the loss of the scrub habitat. This could include nectar rich planting and using a range of species which fruit at different times of the year to provide year-round forage, for example holly, spindle *Euonymus europaeus* and elder *Sambucus nigra*.	London Plan Policy 7.11
Scattered Trees	There are 37 scattered trees and groups of trees on site consisting of species such as native Hybrid black poplar *Populus canadensis*, elder, lime *Tilia sp.*, yew *Taxus baccata* and crab apple *Malus sylvestris* and non-native sycamore.	Photo 5	Native trees of this age and condition are common and widespread through the wider landscape, and as such it is considered they are of **ecological importance within the context of the site only.** The non-native trees of this age and condition are also common and widespread in the area but do not offer much value to the biodiversity at the site and as such are considered to be of **negligible ecological importance.**	Loss of most trees.	The loss of some of the trees on site cannot be avoided due to health and safety constraints and due to the damage that will be caused through the mechanical removal of the Japanese knotweed *Reynoutria japonica* which is present on site. To mitigate for this loss, replacement planting should be used to compensate for the loss of the native trees on site. A range of native replacement tree planting should be used to replace those native species lost as a result of the proposals which could include elder *Sambucus nigra*, hazel *Corylus avellana* , wild cherry *Prunus avium*, silver birch *Betula pendula* and yew *Taxus baccata*. Additionally, in line with the Camden Planning Guidance: Biodiversity (March 2018), deadwood from the hybrid black poplar could be retained within the boundary	Draft London Plan Policy G6 & G7, London BAP, Camden BAP, Camden Planning Guidance: Biodiversity (March 2018)

Habitat Present	Habitat Description	Photo Reference	Ecological Importance	Potential Retention/Loss	Avoidance, Mitigation and Enhancement Measures	Relevant Local Planning Policies
					planting to create new habitat opportunities for invertebrates by creating habitat piles. These deadwood habitat features could provide habitat for stag beetles which are a London and Camden BAP species.	
Tall Ruderal	In between the continuous scrub and building B1 there is a large area of tall ruderal with species including, common nettle, common dock, foxglove *Digitalis sp.* and patches of the invasive species Japanese knotweed which is discussed below. There is also a small area of tall ruderal to the south east of building B1.	Photo 6	The native species found within the tall ruderal habitat are common and widespread through the wider landscape and are considered to be of **ecological importance within the site only.**	Loss of all tall ruderal	Replacement planting to compensate for the loss of native species. The site could be enhanced further through the creation of green walls. See below for details on Japanese knotweed.	LISI[5]

http://www.londonisi.org.uk/what-and-where/species-of-concern/

Photo 1: Building B1 and the area of bare ground surrounding the front of the building

Photo 2: Area of scrub on the western site boundary

Photo 3: Area of scrub at the south eastern site boundary

Photo 4: Emergent vegetation within the ephemeral/short perennial habitat

Photo 5: introduced shrub located at the north eastern site boundary

Photo 6: scattered trees that can be seen at the eastern boundary of the site

Photo 7: Area of tall ruderal habitat to the west of building B1

Protected and Priority Fauna

3.15. The protected and notable species that are potentially present at the site are summarised below, along with further survey requirements, mitigation and enhancement measures, where appropriate. To inform the below recommendations, the results of the data search for the site are included below, where records are less than 10 years old.

3.16. It should be noted that the PBRA results are presented in **Table 3.4** below, in the 'Bats' column.

Table 3.4: Protected and notable species results for the site, along with required further surveys, avoidance measures, and mitigation and enhancement recommendations

Protected/Notable Species	Relevant Legislative Protection	Justification for Potential Presence/Likely Absence	Photo Reference (if applicable)	Further Surveys (if required)	Avoidance, Mitigation and Enhancement Measures	Relevant Local Planning Policies
Amphibians		Records of common frog *Rana tempraria* were returned within the past 10 years, with the most recent record occurring in March 2019 and the closest record being 0.72km west of site. 34 records where retuned in total which date back to 1999. No other records of amphibian were returned within the past 10 years, including great crested newt (GCN) *Triturus cristatus* and as such **GCN are not considered further within this report.** The site does not currently contain any water bodies and a desk-based search using aerial images and ordenance survey mapping revealed no ponds within 500m. It is therefore considered unlikely that common and widespread amphibians will be present on site.	None		The site could be enhanced for common and widespread amphibians. A water feature is proposed to be included within the landscaping, if this water feature is designed with ecology in mind it could offer some habitat to common and widespread amphibians that may be present in the wider area. This could include creating sloping sides and incorporating some aquatic planting to provide shelter. In addition to this, native planting could provide shelter for amphibians and could increase the amount of insect forage available on site.	London Plan Policy 7.11
Badger *Meles*	Protection of Badgers Act (1992)	Two records of badger Meles were returned by the data search with both records being from August 2018. No evidence of badger setts or other field signs were identified during the site visit. Habitats within the site are considered to be unlikely to support badgers and so badgers are **not considered further in this report**	None	N/A	None	N/A
Bats	CHSR (2017) WCA, 1981 Countryside and Rights of Way Act, (CRoW Act; 2000) Natural Environment and Rural Communities Act (NERC, 2006)	Records of five bat species were returned within the data search and included the following species: • Noctule *Nyctalus noctula* with the most recent record being from July 2016 and the nearest record being 0.2km w from site in August 2012; • Common pipistrelle *Pipistrellus* with most recent record in July 2019 and the nearest record being 0.1km east from site in August 2012; • Soprano pipistrelle *Pipistrellus pygmaeus* with the most recent record being from September 2018 and the nearest record being 0.2km west from site in August 2012; • Nathusius pipistrelle *Pipistrellus Nathussi* with the most recent and closest record being 0.2km west from site in August 2012; • One record of brown long-eared bat *Plecotus auritus* occurring in June 2009 0.9km north east from site; and • Records of unknown bat species and *Pipistrellus* species with the closest and most recent record being 0.2km west from site in August 2012. Five European Protected Species licences (EPSL) have been granted for bats within a 2km search radius: • EPSM2010-2134 was granted from 31/08/2010 till 30/08/2012 and allowed for the destruction of a resting place for common and soprano pipistrelles; • 2014-4879-EPS-MIt was granted from 14/04/2014 till 30/09/2014 and allowed for the destruction of a resting place for common pipistrelle; • 2015-10291-EPS-MIT was granted from 08/05/2015 till 28/04/2020 and allowed for the destruction of a resting place for common pipistrelle; • 2015-9230-EPS-MIT was granted from 30/04/2015 till 29/04/2020 and allowed for the destruction of a resting place for common and soprano pipistrelle; and • EPSM2012-4961 was granted from 16/10/2010 till 30/11/2012 and allowed for the destruction of a resting place for common and soprano pipistrelle. **<u>Buildings</u>** There were two buildings on site, one of which is considered to have a **moderate potential for roosting bats** and one of which is considered to have **negligible potential for roosting bats**. Building B1 is the residential unit which supports PRFs including hanging tiles, gaps in brickwork and pointing, lifted lead	Photo 8, 9, 10, 11 and 12	T25 – two emergence/re-entry surveys in the bat active season (May-August, inclusive). T27 – three emergence/re-entry surveys in the bat active season (May-August, inclusive). T28 – three emergence/re-entry surveys in the bat active season (May-August, inclusive).	<u>Mitigation</u> The previous bat report from Phase 1 of the development, stated that as the underground bomb shelter has hibernation potential, it should be demolished outside of the bat hibernation season (October-March), or under the supervision of an ECoW. Our assessment is that the bomb shelter has negligable potential for roosting bats and as such this is not thought to be a requirement. T14, T31 and T21 all have low potential for roosting bats and therefore must be felled under the supervision of a suitably qualified Ecological Clerk of Works (ECoW) outside of the bat hibernation period (November-March, inclusive). Should any of the trees be found to contain a bat roost, a European Protected Species licence (EPSL) or Bat Low Impact Class Licence (BLICL) will need to be applied for and granted before any required works to that tree to take place and replacement bat roosts will be required to mitigate for the loss of the bat roost. <u>General Enhancements</u> Enhancements for bats should be in line with those recommended from the bar survey report from Phase 1 (18111 Netherhall Gardens Bat Survey Report) which includes implementing a sensitive lighting strategy and incorporating native planting. Where lighting is necessary for the function of the development, sensitive lighting should be put in place to ensure minimal disturbance (e.g. low bollard lighting where possible, use of	London Plan 7.11, Draft London Plan Policy G1, London BAP, Camden BAP, Camden Planning Guidance: Biodiversity (March 2018)

Protected/Notable Species	Relevant Legislative Protection	Justification for Potential Presence/Likely Absence	Photo Reference (if applicable)	Further Surveys (if required)	Avoidance, Mitigation and Enhancement Measures	Relevant Local Planning Policies
		flashing and missing, raised and broken tiles. this building was considered to have a moderate potential for roosting bats. Building B1 was subject to two emergence surveys in August and September 2018 to inform the planning application for Phase 1 of the development, during which no emergences were observed. Building B2 is an underground bomb shelter which was considered to have negligible potential for roosting bats. The location of the entrance to the shelter is shown on the Habitat Features Plan (Target Note 1 (TN1). Previously, this structure was considered to have a low potential for roosting bats and one emergence re-entry survey was undertaken with no emergences being observed. Upon our site visit the building was considered to have negligible potential for roosting bats. This assessment was made due to the interior surfaces within the shelter being smooth and lacking crevices for roosting bats and due to the open doorway allowing penetration of day light into the interior. Building B2 is not considered suitable for roosting bats and works to the exterior of the existing structure of building B1 are not proposed within this application and the relevant survey work has been undertaken already. As such, neither building is **considered further within this report.** **<u>Trees</u>** There are six trees on site with bat potential: • T27 is a hybrid black poplar with a natural hole, woodpecker hole and split from a snapped branch. It is considered to have **high potential** for roosting bats; • T28 is a hybrid black poplar with two knots, and a large cavity. It is considered to have **high potential** for roosting bats; • T25 is a hybrid black poplar with 70% dense ivy cover which could be concealing a feature. It is considered to have **moderate potential** for roosting bats; • T14 has a knot and a wound with negligable roosting bat potential. It is considered to have **low potential** for roosting bats; • T21 is covered in ivy which may conceal a potential roost features. It is considered to have **low potential** for roosting bats; and • T31 is a hybrid black poplar with loose bark around a pruned limb. It is considered to have **low potential** for roosting bats. No visible signs of bat activity or presence were found during the site visit. Bats may be present in roosts within trees detailed above and bats were recorded foraging on site during the above-mentioned bat surveys. As such, bat presence in the trees with bat potential cannot be ruled out.			hoods and cowls on lamps and use of low pressure sodium or, where glass glazing is preferred, use of high pressure sodium instead of metal halide lamps – Collins, 2016; BCT and Institute of Lighting Engineers, 2018). Suitable native planting could be used throughout the landscaping and could be integrated into green walls. This native planting would increase the insect abundance at the site and provide more opportunity for foraging bats, this could include species like honeysuckle and ivy. To enhance the site for bats further, as set out in the Camden Planning Guidance: Biodiversity (March 2018), free hanging bat boxes could be placed on retained trees or on building B1 and	
Nesting Birds	WCA, 1981	19 species of bird were retuned by the data search. This includes records of species on the Birds of Conservation Concern (BoCC) Red List, including house sparrow *Passer domesticus* and song thrush Turdus philomele and species on the Amber list including dunnock *Punella modularis,* swift *Apus, and* House martin *Delichon urbicum.* The buildings and vegetation (scrub and trees) at the site have the potential to support nesting birds, whose nests and eggs are protected under the WCA (1981) as amended. Further consideration for breeding and wintering bird is not considered necessary as the site is not deemed likely to be of importance for breeding or wintering bird assemblages. The suitable habitat on site is limited and extends only to the areas of scrub located throughout the site, site trees and buildings, and therefore any potential breeding or wintering bird assemblage on site will likely to only include common and widespread species.	None	None	If any vegetation is to be removed or buildings demolished during the core nesting bird season (March-August inclusive, although birds may nest outside of this period), prior to the commencement of works a check by an ECoW should be undertaken to determine if nesting birds are present. If nesting birds are found to be present during vegetation clearance or building demolishment, a buffer zone will be instated, and no works should be undertaken within the buffer zone until the chicks have fledged. A repeat visit by an ECoW will be required to determine if the chicks have fledged. As set out in the Camden Planning Guidance: Biodiversity (March 2018), bird boxes should be incorporated into the scheme design, where possible, to enhance the nesting resource at the sites for birds. This could include bird box bricks designed for species of conservation concern returned within the data search, such as house sparrow and swift which are also London BAP and Camden BAP species. Additionally, planting a mix of native species throughout the site can increase foraging opportunities through providing a mixture of	London Plan Policy 7.19, London BAP, Camden BAP, Camden Planning Guidance: Biodiversity (March 2018)

Protected/Notable Species	Relevant Legislative Protection	Justification for Potential Presence/Likely Absence	Photo Reference (if applicable)	Further Surveys (if required)	Avoidance, Mitigation and Enhancement Measures	Relevant Local Planning Policies
					species that flower at different times of year, such as ivy which flowers in autumn, and by increasing the abundance of insect forage on site though planting species such as honey suckle.	
Reptiles	WCA, 1981	No records of reptiles were returned within the data search within the past 10 years. The majority of habitat on site is not considered suitable for reptiles, such as scrub, tall ruderal and building and hardstanding. As such, reptiles are **not considered further within this report.**	None	None	None	N/A
Stag Beetle	NERC, 2006	Records of stag beetle *Luncanus cervus* were returned by the data search with the most recent record occurring in June 2019 and the closest record being 0.3km east of the site. 12 records in total were returned with the earliest record being from 2007. Stag beetle could be present within the wider landscape and the dead limbs on T27 could provide suitable habitat for this species.	None	N/A	To provide deadwood habitat for any stag beetle that may be present on site or in the wider area some of the material from the trees scheduled to be felled onsite could be retained and placed within the areas of native planting, with a particular focus on retaining any deadwood from the felled T27. Deadwood habitat is recommended within the Camden Planning Guidance: Biodiversity (March 2018) and providing this habitat on site would be in line with both the London and Camden BAP, for which stag beetle are listed.	London Plan Policy 7.19, London BAP, Camden BAP, Camden Planning Guidance: Biodiversity (March 2018)
Western European Hedgehog	NERC, 2006	No records of hedgehog were returned by the data search. Although no records were returned by the data search, the scrub habitats could provide shelter, forage and commuting opportunities for hedgehogs that may be present in the wider landscape.	None	N/A	If any fences are to be installed within the, site small gaps should be provided to allow hedgehogs free movement across the site. Native woody and shrubby planting, including the proposed native hedgerow, could be used to increase the amount of shelter on site for hedgehogs.	London Plan Policy 7.19, Camden BAP

Photo 8: shows building B1 which is dilapidated. Although currently lived in.

Photo 9: shows the interior of the bomb shelter, building B2

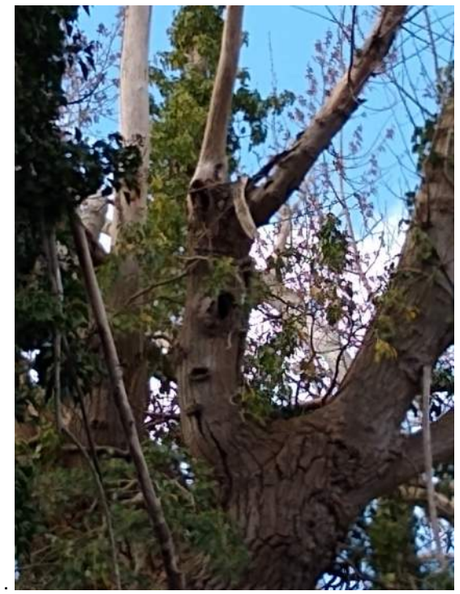


Photo 10: shows tree T27

Photo 11: shows tree T28

Photo 12: shows tree T25

Photo 13: shows the Japanese knotweed onsite

3.17. The site is also considered unlikely to support Eurasian otter *Lutra*, European water vole *Arvicola amphibius,* white-clawed crayfish *Austropotamobius pallipes* and hazel dormouse *Muscardinus avellanarius* due to the lack of records returned by the data search, lack of suitable habitats within the site, and the lack of connectivity of habitats at the site to notable areas of suitable habitat within the wider landscape. As such, neither Eurasian otter, European water vole, white-clawed crayfish or hazel dormouse are considered likely to be present at the site and so are **not discussed further within this report.**

Invasive Species

3.18. Invasive species are those listed under Schedule 9 of the Wildlife and Countryside Act (WCA) 1981. With regard to invasive plant species (listed under Part II of Schedule 9), it is an offence to plant or otherwise cause to grow in the wild any plant which is included in Part II of Schedule 9.

3.19. The Schedule 9 species Japanese knotweed is present on site (Photo 13) located towards the west of building B1(TN2 on Habitat Features Plan 13154/P01a). All Japanese knotweed should be removed from site and dealt with appropriately to prevent it spreading onto neighbouring sites. Japanese knotweed is also listed under the London Invasive Species Initiative (LISI).

3.20. A contractor has been appointed to remove the Japanese knotweed on site, which will be removed mechanically. This process will encroach on the RPAs of several of the large trees on site, including the hybrid black poplar species.

Section 4: Conclusions

4.1 One European designated site, Lee Valley SPA, is located within 10km of the site, one nationally designated site, Hampstead Heath Woods SSSI, and three locally designated sites, Belsize wood LNR, Adelaid LNR and Westbere Copse LNR are located within 2km of the site. However, these sites are not considered to be indirectly or directly affected by the proposed development.

4.2 Eight non-statutory SINCS are located within 1km of the site, however none of these sites lie within nor directly adjacent to the site boundary and seven of these sites have restricted public access and the remaining site is actively managed for community use and so no direct or indirect impacts are predicted to occur as a result of the proposals.

4.3 All of the habitats found on site are considered to be of either negligible ecological importance (bare ground, building and hardstanding, non-native scattered trees and non-native introduced shrub) or of ecological importance within the context of the site only (continuous scrub, native scattered trees, tall ruderal and ephemeral/short perennial). Those habitats of negligible ecological importance that are to be lost as a result of the proposals (bare ground, non-native scattered trees) require no specific mitigation. The loss of those habitats of ecological importance within the site only (ephemeral/short perennial, tall ruderal, native scattered trees and continuous scrub) can be mitigated through suitable habitat creation by implementing replacement planting, namely within the amenity space to the west of the residential unit and the eastern site boundary. The inclusion of native green walls could further mitigate the loss of these habitats.

4.4 As denoted in **Table 3.4**, building B1 has moderate potential for roosting bats in agreeance with the findings of Croylus Ecology in 2018. As detailed above this building has already been subject to two emergence re-entry surveys during which no emergences or re-entries were recorded. As such it is considered that there are likely no roosts present and no further survey work is required. Building B1 has negligible potential for roosting bats and requires no further consideration. Additionally, Building B2 was considered to have negligable potential for roosting bats and requires no further consideration. Trees T14, T31 and T21 were found to have a low potential for roosting bats and must be soft felled under the supervision of an ECoW outside of the bat hibernation period (November – March. inclusive). Tree 25 was found to have moderate potential for roosting bats and tree and T27 and T28 were found to have a high potential for roosting bats and therefore require two and three emergence/re-entry surveys, respectively. In line with best practice guidelines these surveys should take place in the bat active season (May-August, inclusive).

4.5 Should trees or scrub at the site be removed during the core nesting bird season (March-August), prior to the commencement of works a check by an ECoW should be undertaken to determine if nesting birds are present. Should nesting birds be present in these areas, an appropriate buffer will need to be put in place and retained until an ECoW confirms that the young have fledged.

4.6 **Table 3.4** also summarises required mitigation should the aforementioned protected species be present, alongside general enhancement opportunities for these species.

4.7 Where possible new habitat will be created on-site in line with local and national planning policy. In addition, enhancements for specific species groups could be provided, including bird boxes, bat boxes and insect hotels to increase the number of nest and roosting sites across the site. Native planting and green wall planting could increase foraging opportunities for bats, birds, invertebrates and small mammals that may use the site and habitat piles created from felled trees, in particular from any deadwood, could be placed within the site boundaries to provide shelter and nesting opportunities for invertebrates and small mammals. Additionally, the proposals offer the opportunity to establish native hedgerow on a site that currently supports no hedgerow habitat, which will further provide increased opportunities for nesting, foraging, commuting and sheltering fauna.

4.8 It is recognised that a substantial amount of tree loss has been proposed within the Arboricultural Impact Assessment Report (200506-1.2-13NGL(P2)-AIA&TPS-LF) due to multiple constraints including the mechanical removal of Japanese knotweed and health and safety. As stated within this report replacement native tree planting should be incorporated where possible and in order to retain valuable deadwood habitat that is present within the existing hybrid black poplars, materials should be kept on site and placed within boundary planting. It is considered that the aforementioned enhancements will provide improvements for biodiversity at the site which are appropriate to the context of the development.

4.9 Those valuable ecological resources that exist, or could exist, at the site, could be accommodated by the adoption of design principles. Where impacts may occur, these could be more than mitigated for through creation and better management of new habitat within the site (namely boarder planting, soft landscaping, native hedgerow instalment and green wall planting). In conclusion, it is considered that the principle of development at the site should be compliant with the relevant planning policy and legislation with regard to ecology.

References

Bat Conservation Trust & Institution of Lighting Professionals (2018). Guidance Note 08/18 – "Bats and artificial lighting in the UK".

Chartered Institute of Ecology and Environmental Management (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland, 3rd Edition*. http://www.cieem.net/ecia-guidelines-terrestrial-. Chartered Institute of Ecology and Environmental Management, Winchester.

Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition.* The Bat Conservation Trust, London.

Eaton M, Aebischer N, Brown A, Hearn R, Lock L, Musgrove A, Noble D, Stroud D and Gregory R. (2015). Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. *British Birds*, 108: 708 - 746.

European Community (2007) *Guidance document on the strict protection of the animal species of Community interest under the Habitats Directive 92/43/EEC*. Final version, February 2007. http://circa.europa.eu/Public/irc/env/species_protection/library?l=/commission_guidance/english/final-completepdf/_EN_1.0_&a=d

Entwistle, A.C., Harris, S., Hutson, A.M., Racey, P.A., Walsh, A., Gibson, S.D., Hepburn, I. and Johnston, J. (2001) *Habitat management for bats: A guide for land managers, landowners and their advisors*. JNCC, Peterborough.

Joint Nature Conservation Committee (2010). *Handbook for Phase 1 habitat survey - a technique for environmental audit*. JNCC, Peterborough.

Jones, J. (2000) *Impact of Lighting on Bats*. Bat Conservation Trust, London.

Mitchell-Jones, A.J. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.

Mitchell-Jones, A.J. and McLeish, A.P. (2004). *Bat Workers' Manual*. 3rd Edition. JNCC, Peterborough.

Oldham, R.S., Keeble, J., Swan, M.J.S. and Jeffcote, M. (2000) Evaluating the suitability of habitat for the great crested newt (*Triturus cristatus*). *Herpetological Journal*, 10: 143-155.

Appendix 1: Legislation and Planning Policy

Appendix 1: Legislation and Planning Policy

Legislative Context

A1.1. Specific habitats and species receive legal protection in the UK under various pieces of legislation, including:

- The Wildlife and Countryside Act (WCA) 1981 (as amended);
- The Conservation of Habitats and Species Regulations 2017 (as amended);
- The Countryside and Rights of Way (CRoW) Act 2000;
- The Hedgerows Regulations 1997;
- The Protection of Badgers Act 1992;
- The Natural Environment and Rural Communities Act (NERC) 2006; and
- The Wild Mammals (Protection) Act 1996.

A1.2. The European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992, often referred to as the 'Habitats Directive', provides for the protection of key habitats and species considered of European importance. Annexes II and IV of the Directive list all species considered of community interest. The legal framework to protect the species covered by the Habitats Directive has been enacted under UK law through The Conservation of Habitats and Species Regulations 2010 (as amended).

A1.3. In Britain, the WCA 1981 (as amended) is the primary legislation protecting habitats and species. SSSIs, representing the best examples of our natural heritage, are notified under the WCA 1981 (as amended) by reason of their flora, fauna, geology or other features. All breeding birds, their nests, eggs and young are protected under the Act, which makes it illegal to knowingly destroy or disturb the nest site during nesting season. Schedules 1, 5 and 8 afford protection to individual birds, other animals and plants.

A1.4. The CRoW Act 2000 strengthens the species enforcement provisions of the WCA 1981 (as amended) and makes it an offence to 'recklessly' disturb a protected animal whilst it is using a place of rest or shelter or breeding/nest site.

Species and Habitats of Principal Importance and the UK Biodiversity Action Plan

A1.5. The UK Post-2010 Biodiversity Framework succeeded the UK BAP partnership in 2011 and covers the period 2011 to 2020. However, the lists of Priority Species and Habitats agreed under the UKBAP still form the basis of much biodiversity work in the UK. The current strategy for England is 'Biodiversity 2020: A Strategy for England's wildlife and ecosystem services' published under the UK Post-2010 UK Biodiversity Framework. Although the UK BAP has been succeeded, Species Action Plans (SAPs) developed for the UK BAP remain valuable resources for background information on priority species under the UK Post-2010 Biodiversity Framework.

A1.6. Priority Species and Habitats identified under the UKBAP are also referred to as Species and Habitats of Principal Importance (SoPI/HoPI) for the conservation of biodiversity in England and Wales within Sections 41 (England) and 42 (Wales) of the Natural Environment and Rural Communities (NERC) Act 2006. The commitment to preserving, restoring or enhancing biodiversity is further emphasised for England and Wales in Section 40 of the NERC Act 2006.

National Planning Policy

National Planning Policy Framework (NPPF), February 2019

A1.7. The National Planning Policy Framework (NPPF) was published in February 2019 and sets out the Government's planning policies for England and how these should be applied. It replaces the first National Planning Policy Framework published in March 2012.

A1.8. Paragraph 11 states that:

"Plans and decisions should apply a presumption in favour of sustainable development."

A1.9. Section 15 of the NPPF (paragraphs 170 to 177) considers the conservation and enhancement of the natural environment.

A1.10. Paragraph 170 states that planning and decisions should contribute to and enhance the natural and local environment by:

a) *"protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
b) *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; and*
c) *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"*.

A1.11. Paragraph 171 states that plans should distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

A1.12. Paragraph 174 states that in order to protect and enhance biodiversity and geodiversity, plans should:

a) *"Identify, map 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 stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and*

b) *promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."*

A1.13. When determining planning applications, Paragraph 175 states that local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:
a) *"if significant harm to biodiversity 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, then planning permission should be refused;*
b) *development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should*

not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact 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;

c) *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons58 and a suitable compensation strategy exists; and*

d) *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity."*

A1.14. As stated in paragraph 176 the following should be given the same protection as habitats sites:

a) *"potential Special Protection Areas and possible Special Areas of Conservation;*

b) *listed or proposed Ramsar sites; and*

c) *sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites."*

A1.15. Paragraph 177 states that the presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats site is being planned or determined.

Local Planning Policy

London Plan

A1.16. *The London Plan 2016: The Spatial Development Strategy for London[12], consolidated since 2011*

A1.17. *Relevant policies relating to ecology and nature conservation are set out below.*

A1.18. *Policy 5.10 'Urban Greening' states:*

Strategic

The Mayor will promote and support urban greening, such as new planting in the public realm (including streets, squares and plazas) and multifunctional green infrastructure, to contribute to the adaptation to, and reduction of, the effects of climate change.

The Mayor seeks to increase the amount of surface area greened in the Central Activities Zone by at least five per cent by 2030, and a further five per cent by 2050[1].

Planning decisions

Development proposals should integrate green infrastructure from the beginning of the design process to contribute to urban greening, including the public realm. Elements that can contribute to this include tree planting, green roofs and walls, and soft landscaping. Major development proposals within the Central Activities Zone should demonstrate how green infrastructure has been incorporated.

LDF preparation

Boroughs should identify areas where urban greening and green infrastructure can make a particular contribution to mitigating the effects of climate change, such as the urban heat island.

A1.19. *Policy 5.11 'Green roofs and development site environs' states:*

Planning decisions

Major development proposals should be designed to include roof, wall and site planting, especially green roofs and walls where feasible, to deliver as many of the following objectives as possible:

- *adaptation to climate change (i.e. aiding cooling)*
- *sustainable urban drainage*
- *mitigation of climate change (i.e. aiding energy efficiency)*
- *enhancement of biodiversity*
- *accessible roof space*
- *improvements to appearance and resilience of the building*
- *growing food.*

LDF preparation

Within LDFs boroughs may wish to develop more detailed policies and proposals to support the development of green roofs and the greening of development sites. Boroughs should also promote the use of green roofs in smaller developments, renovations and extensions where feasible.

A1.20. *Policy 5.3 'Sustainable design and construction' states:*

Strategic

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.

Planning decisions

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.

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 the following sustainable design principles:

- *minimising carbon dioxide emissions across the site, including the building and services (such as heating and cooling systems)*
- *avoiding internal overheating and contributing to the urban heat island effect*
- *efficient use of natural resources (including water), including making the most of natural systems both within and around buildings*

- *minimising pollution (including noise, air and urban runoff)*
- *minimising the generation of waste and maximising reuse or recycling*
- *avoiding impacts from natural hazards (including flooding)*
- *ensuring developments are comfortable and secure for users, including avoiding the creation of adverse local climatic conditions*
- *securing sustainable procurement of materials, using local supplies where feasible, and*
- *promoting and protecting biodiversity and green infrastructure.*

LDF preparation

Within LDFs boroughs should consider the need to develop more detailed policies and proposals based on the sustainable design principles outlined above and those which are outlined in the Mayor's supplementary planning guidance that are specific to their local circumstances.

A1.21. *Policy 7.19 'Biodiversity and Access to nature' states:*

Strategic

The Mayor will work with all relevant partners 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.

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, 3.7, 5.4A, 5.14, 5.15, 5.17, 5.20, 6.3, 6.9, 7.14, 7.15, 7.25 – 7.27 and 8.1. Whilst all opportunity and intensification areas must address the policy in general, specific locations requiring consideration are referenced in Annex 1.

Planning decisions

C) Development Proposals should: a wherever possible, make:

- *positive contribution to the protection, enhancement, creation and management of biodiversity*
- *prioritise assisting in achieving targets in biodiversity action plans (BAPs), set out in Table 7.3, and/or improving access to nature in areas deficient in accessible wildlife sites*
- *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.*

D) On Sites of Importance for Nature Conservation development proposals should:

- *give the highest protection to sites with existing or proposed international designations1 (SACs, SPAs, Ramsar sites) and national designations2 (SSSIs, NNRs) in line with the relevant EU and UK guidance and regulations3*

- *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*

- *give sites of borough and local importance for nature conservation the level of protection commensurate with their importance.*

- *When considering proposals that would affect directly, indirectly or cumulatively a site of recognised nature conservation interest, the following hierarchy will apply:*

- *avoid adverse impact to the biodiversity interest*

- *minimize impact and seek mitigation*

- *only in exceptional cases where the benefits of the proposal clearly outweigh the biodiversity impacts, seek appropriate compensation.*

LDF preparation

F) In their LDFs, Boroughs should:

- *use the procedures in the Mayor's Biodiversity Strategy to identify and secure the appropriate management of sites of borough and local importance for nature conservation in consultation with the London Wildlife Sites Board.*

- *identify areas deficient in accessible wildlife sites and seek opportunities to address them*

- *include policies and proposals for the protection of protected/ priority species and habitats and the enhancement of their populations and their extent via appropriate BAP targets*

- *ensure sites of European or National Nature Conservation Importance are clearly identified*

- *identify and protect and enhance corridors of movement, such as green corridors, that are of strategic importance in enabling species to colonise, re-colonise and move between sites.*

1) *Designated under European Union Council Directive on the conservation of wild birds (79/409/ EEC) 1992, European Union Council Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC) 1992 and Ramsar Convention on wetlands of international importance especially as waterfowl habitat 197*

2) *Designated under the Wildlife and Countryside Act 1981 as amended by the countryside Right of Way Act 2000*

3) *Conservation of Species and Habitats Regulations (2010) (as amended*

The London Plan, The Spatial Development Strategy for Great London, Draft published in July 2019

A1.22. *The draft London Local Plan July 2019[13] has yet to be adopted by London Council, however, as the consultation stage has closed it therefore maybe a consideration for future developments. Policies*

relating to ecology and nature conservation can be found in Chapter 8: Green Infrastructure and Natural Environment, which are summarised as follows:

A1.23. *Policy G1 Green infrastructure*

London's network of green and open spaces, and green features in the built environment such as green roofs and street trees, should be protected, planned, designed and managed as integrated features of green infrastructure.

Boroughs should prepare green infrastructure strategies that integrate objectives relating to open space provision, biodiversity conservation, flood management, health and wellbeing, sport and recreation.

Development Plans and Opportunity Area Planning Frameworks should:

identify key green infrastructure assets, their function and their potential function

identify opportunities for addressing environmental and social challenges through strategic green infrastructure interventions.

A1.24. *Policy G5 Urban Greening*

Major development proposals should contribute to the greening of London by including urban greening as a fundamental element of site and building design, and by incorporating measures such as high-quality landscaping (including trees), green roofs, green walls and nature-based sustainable drainage.

Boroughs should develop an Urban Greening Factor (UGF) to identify the appropriate amount of urban greening required in new developments. The UGF should be based on the factors set out in Table 8.2, but tailored to local circumstances. In the interim, the Mayor recommends a target score of 0.4 for developments that are predominately residential, and a target score of 0.3 for predominately commercial development.

A1.25. *Policy G6 Biodiversity and access to nature*

Sites of Importance for Nature Conservation (SINCs) should be protected. The greatest protection should be given to the most significant sites.

In developing Development Plan policies, boroughs should:

- *use the relevant procedures to identify SINCs and green corridors. When undertaking comprehensive reviews of SINCs across a borough or when identifying or amending Sites of Metropolitan Importance boroughs should consult the London Wildlife Sites Board*
- *identify areas of deficiency in access to nature (i.e. areas that are more than 1km walking distance from an accessible Metropolitan or Borough SINC) and seek opportunities to address them*
- *seek opportunities to create habitats that are of particular relevance and benefit in an urban context*
- *include policies and proposals for the protection and conservation of priority species and habitats and opportunities for increasing species populations*
- *ensure sites of European or national nature conservation importance are clearly identified and appropriately assessed.*

- *Where harm to a SINC (other than a European (International) designated site) is unavoidable, the following approach should be applied to minimise development impacts:*

- *avoid adverse impact to the special biodiversity interest of the site*

- *minimise the spatial impact and mitigate it by improving the quality or management of the rest of the site*

- *seek appropriate off-site compensation only in exceptional cases where the benefits of the development proposal clearly outweigh the biodiversity impacts.*

Biodiversity enhancement should be considered from the start of the development process.

Proposals which create new or improved habitats that result in positive gains for biodiversity should be considered positively, as should measures to reduce deficiencies in access to wildlife sites.

A1.26. *Policy G7 Trees and woodlands*

Trees and woodlands should be protected, and new trees and woodlands should be planted in appropriate locations in order to increase the extent of London's urban forest – the area of London under the canopy of trees.

In their Development Plans, boroughs should:

- *protect 'veteran' trees and ancient woodland where these are not already part of a protected site*

- *identify opportunities for tree planting in strategic locations*

Development proposals should ensure that, wherever possible, existing trees of quality are retained 108. If it is imperative that trees have to be removed, there should be adequate replacement based on the existing value of the benefits of the trees removed, determined by, for example, i-tree or CAVAT. The planting of additional trees should generally be included in new developments – particularly large-canopied species which provide a wider range of benefits because of the larger surface area of their canopy.

Camden Plan (2017)

A1.27. The Camden Local Plan is the key strategic document in Camden's development plan. It sets out the vision for shaping the future of the Borough and contains policies for guiding planning decisions. The policies relating to ecology are:

Policy A2 Open space

A1.28. The Council will protect, enhance and improve access to Camden's parks, open spaces and other green infrastructure.

Protection of open spaces

In order to protect the Council's open spaces, we will:

a. protect all designated public and private open spaces as shown on the Policies Map and in the accompanying schedule unless equivalent or better provision of open space in terms of quality and quantity is provided within the local catchment area;

b. safeguard open space on housing estates while allowing flexibility for the re-configuration of land uses. When assessing development proposals we will take the following into account:

i. the effect of the proposed scheme on the size, siting and form of existing open space and the functions it performs;

ii. whether the open space is replaced by equivalent or better provision in terms of quantity and quality; and

iii. whether the public value of retaining the open space is outweighed by the benefits of the development for existing estate residents and the wider community, such as improvements to thequality and access of the open space.

c. resist development which would be detrimental to the setting of designated open spaces;

d. exceptionally, and where it meets a demonstrable need, support small scale development which is associated with the use of the land as open space and contributes to its use and enjoyment public;

e. protect non-designated spaces with nature conservation, townscape and amenity value, including gardens, where possible;

f. conserve and enhance the heritage value of designated open spaces and other elements of open space which make a significant contribution to the character and appearance of conservation areas or to the setting of heritage assets;

g. give strong protection to maintaining the openness and character of Metropolitan Open Land (MOL);

h. promote and encourage greater community participation in the management of open space and support communities seeking the designation of Local Green Spaces through the neighbourhood planning process;

i. consider development for alternative sports and recreation provision, where the needs outweigh the loss and where this is supported by an up-to-date needs assessment;

j. preserve and enhance Hampstead Heath through working with partners and by taking into account the impact on the Heath when considering relevant planning applications, including any impacts on views to and from the Heath; and

k. work with partners to preserve and enhance the Regent's Canal, including its setting, and balance the differing demands on the Canal and its towpath

New and enhanced open space

A1.29. To secure new and enhanced open space and ensure that development does not put unacceptable pressure on the Borough's network of open spaces, the Council will:

l. seek developer contributions for open space enhancements using Section 106 agreements and the Community Infrastructure Levy (CIL).

A1.30. The Council will secure planning obligations to address the additional impact of proposed schemes on public open space taking into account the scale of the proposal, the number of future occupants and the land uses involved;

m. *apply a standard of 9 sqm per occupant for residential schemes and 0.74 sqm for commercial and higher education developments while taking into account any funding for open spaces through the Community Infrastructure Levy;*

n. give priority to securing new public open space on-site, with provision off-site near to the development only considered acceptable where provision on-site is not achievable. If there is no realistic means of direct provision, the Council may accept a financial contribution in lieu of provision;

o. ensure developments seek opportunities for providing private amenity space;

p. give priority to play facilities and the provision of amenity space which meet residents' needs where a development creates a need for different types of open space;

q. seek opportunities to enhance links between open spaces recognising the multiple benefits this may bring;

r. tackle deficiencies to open space through enhancement measures; and

s. seek temporary provision of open space where opportunities arise.

Policy A3: Biodiversity

A1.31. The Council will protect and enhance sites of nature conservation and biodiversity. We will:

a. designate and protect nature conservation sites and safeguard protected and priority habitats and species;

b. grant permission for development unless it would directly or indirectly result in the loss or harm to a designated nature conservation site or adversely affect the status or population of priority habitats and species;

c. seek the protection of other features with nature conservation value, including gardens, wherever possible; Camden Local Plan | Protecting amenity 201

d. assess developments against their ability to realise benefits for biodiversity through the layout, design and materials used in the built structure and landscaping elements of a proposed development, proportionate to the scale of development proposed;

e. secure improvements to green corridors, particularly where a development scheme is adjacent to an existing corridor;

f. seek to improve opportunities to experience nature, in particular where such opportunities are lacking;

g. require the demolition and construction phase of development, including the movement of works vehicles, to be planned to avoid disturbance to habitats and species and ecologically sensitive areas, and the spread of invasive species;

h. secure management plans, where appropriate, to ensure that nature conservation objectives are met; and

i. work with The Royal Parks, The City of London Corporation, the London Wildlife Trust, friends of park groups and local nature conservation groups to protect and improve open spaces and nature conservation in Camden.

Trees and vegetation

A1.32. The Council will protect, and seek to secure additional, trees and vegetation We will:

> j. *resist the loss of trees and vegetation of significant amenity, historic, cultural or ecological value including proposals which may threaten the continued wellbeing of such trees and vegetation;*
>
> *k. require trees and vegetation which are to be retained to be satisfactorily protected during the demolition and construction phase of development in line with BS5837:2012 'Trees in relation to Design, Demolition and Construction' and positively integrated as part of the site layout;*
>
> *l. expect replacement trees or vegetation to be provided where the loss of significant trees or vegetation or harm to the wellbeing of these trees and vegetation has been justified in the context of the proposed development;*
>
> *m. expect developments to incorporate additional trees and vegetation wherever possible***.**

Supplementary Planning Documents (SPDs)

Camden Planning Guidance: Biodiversity (March 2018)

A1.33. This SPD was produced to provide guidance for major and minor developments in Camden to support the policies in the Camden Local Plan (2017). The document provides examples of habitat creation and restoration for mitigation and enhancement. The advice relevant for this development is as follows:

A1.34. The SPD recommends the incorporation of ecological features into the scheme design and recommends enhancements such as:

- Green walls
- Bird and bat boxes
- Lighting considerations
- Planting that will attract wildlife
- Deadwood habitats
- Boundary features

Biodiversity Action Plans

A1.35. The UK Post-2010 Biodiversity Framework succeeded the UK BAP partnership in 2011 and covers the period 2011 to 2020. However, the lists of Priority Species agreed under the UK BAP still form the basis of much biodiversity work in the UK. The current strategy for England is 'Biodiversity 2020: A strategy for England's wildlife and ecosystem services' published under the UK Post-2010 UK Biodiversity Framework. Although the UK BAP has been superseded, Species Action Plans (SAPs) and Habitat Action Plans (HAPs) developed for the UK BAP remain valuable resources for background information on priority species under the UK Post-2010 Biodiversity Framework.

A1.36. Most areas now possess a Local BAP (LBAP) to complement the national strategy where priority habitats and species are identified, and targets set for their conservation. BAP's are the key nature conservation initiative in the UK, working at national, regional and local levels.

The London BAP

A1.37. The London BAP outlines Species Action Plans for the following species and habitats:

A1.38. Species

- Bats
- Black poplar
- House sparrow
- Mistletoe
- Reptiles
- Sand Martin
- Stag Beetle
- Water vole

A1.39. Habitats

- Acid grassland
- Chalk grassland
- Heathland
- Parks and urban green spaces
- Private gardens
- Reedbeds
- Rivers and Streams
- Standing Water
- Tidal Thames
- Wasteland

Camden BAP (2013-2018)

A1.40. The borough of Camden is currently in the process of compiling a new Biodiversity Action Plan, the previous BAP, The Camden BAP 2013-2018 contained the following priority species and habitats:

A1.41. Species**:**

- Bats
- Hedgehogs
- Butterflies
- Sparrows
- Swifts
- Bees
- Slow worm
- Stag beetle

A1.42. Habitat:

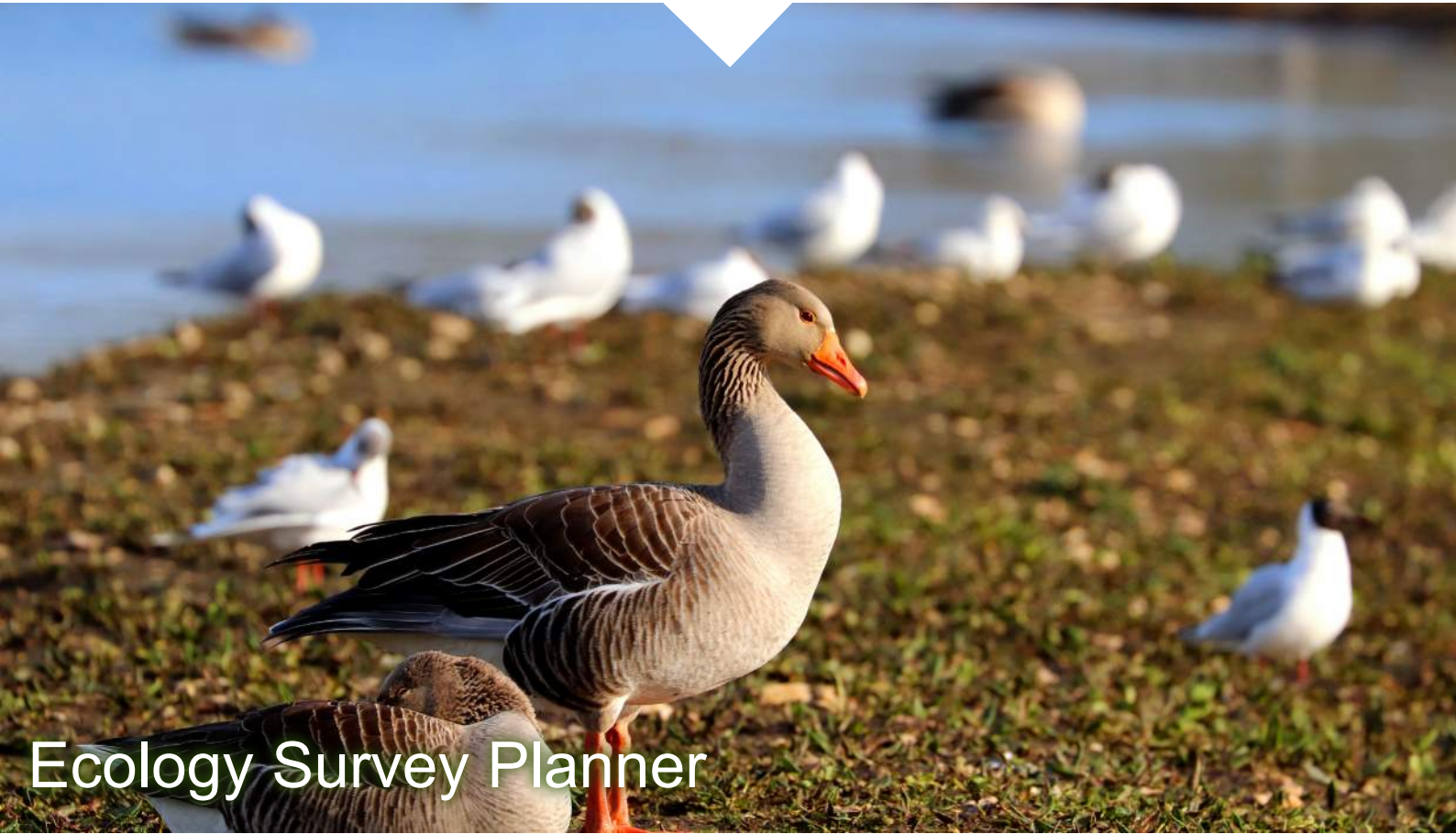
- Green corridors
- Green roofs
- Public parks/amenity grass
- Gardens
- Hedges
- Housing estates

- Acid grassland
- Ponds and standing water
- Wetlands, canals
- Orchards
- Woodland
- Meadows
- Roadside verges
- Brownfield

Appendix 2: Ecology Survey Planner

Tyler Grange

Ecology • Arboriculture • Landscape Planning & Design • Expert Witness



Ecology Survey Planner

Tyler Grange

Ecology Survey Planner

Birmingham
t. 0121 773 0770

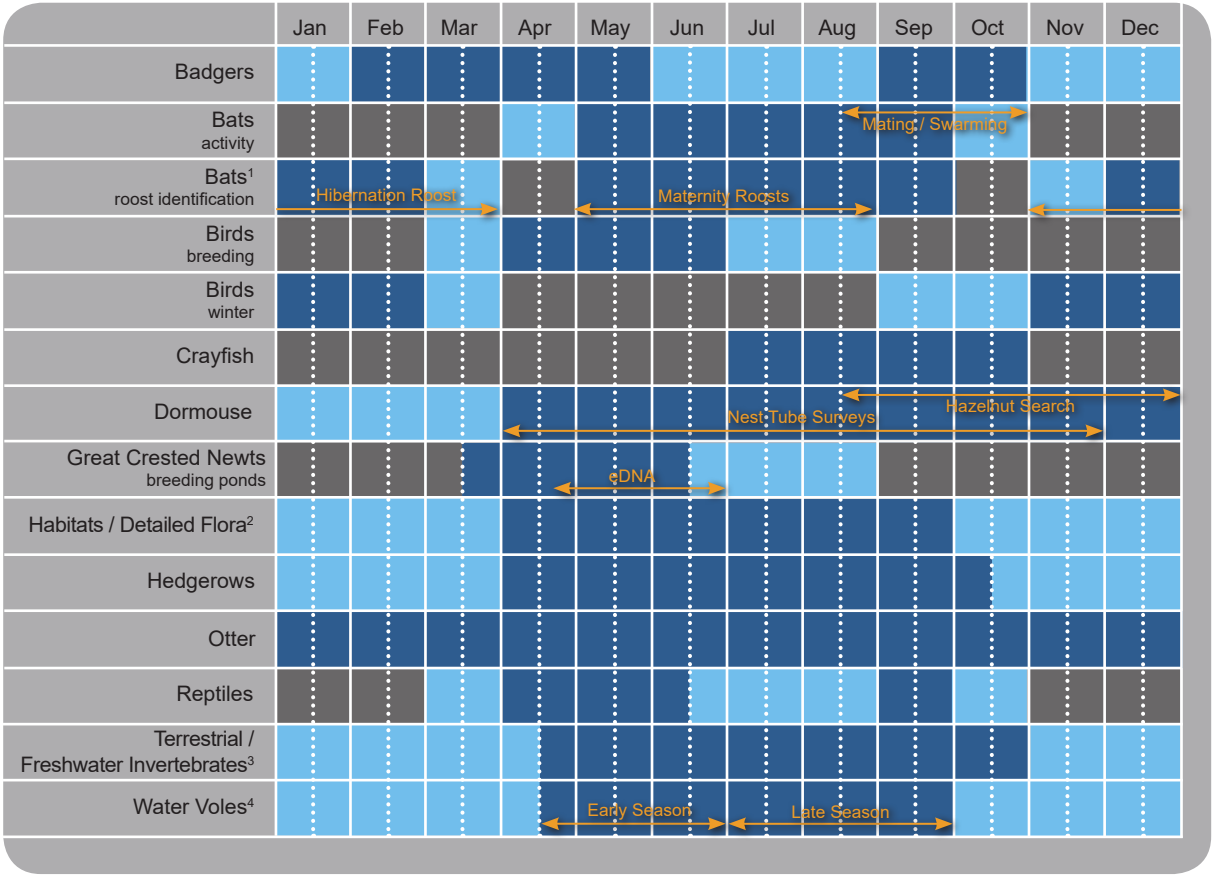
Cotswolds
t. 01285 831 804

Exeter
t. 01392 447 588

Manchester
t. 0161 236 8367

London
t. 0207 620 2710

e. info@tylergrange.co.uk
w. tylergrange.co.uk



[1] Internal building searches for evidence of bats can be undertaken at any time; winter is the best time for assessing trees for roosting potential, with further work to confirm potential undertaken in spring / summer.

[2] The timing of detailed flora surveys is dependent on the specific habitat type to be investigated. Lower plants should be surveyed in winter.

[3] Timing is dependent on target species/group.

[4] Surveys are required in both the early and late seasons.

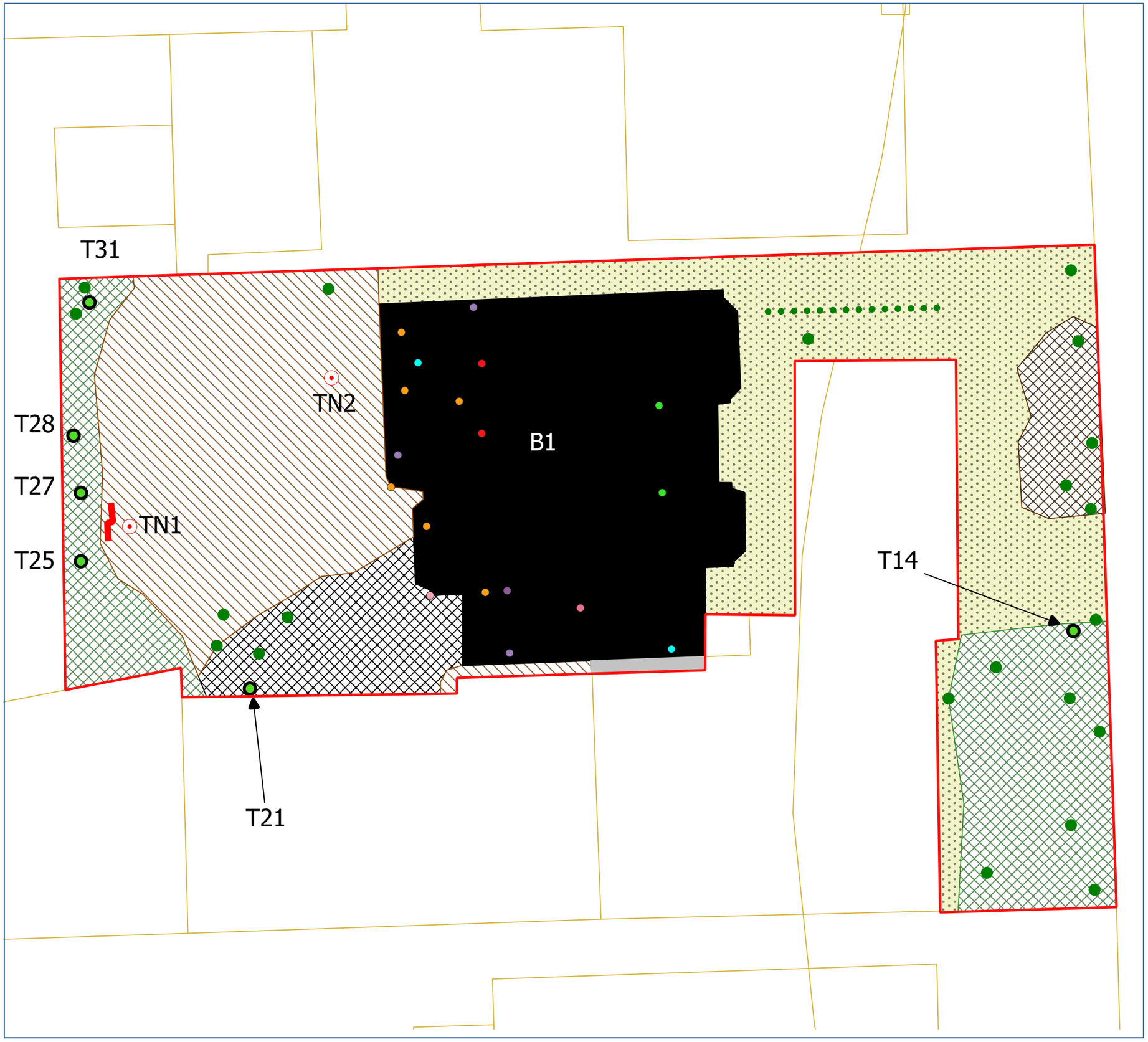
Surveys optimal

Surveys sub-optimal

Surveys cannot be undertaken / results unreliable

Plan

Habitat Features Plan (13154/P01a)



- Red Line Boundary
- Bare Ground
- Building
- Ephemeral/Short Perennial
- Hardstanding
- Continous Scrub
- Introduced Shrub
- Tall Ruderal
- Tree Line
- Scattered Broadleaved Trees
- Target Note

Bat Features

- Trees with Bat Roost Potential
- Broken Chimney Stack
- Gap between Gutter and Brickwork
- Hanging Tiles
- Gap under Hanging Tiles
- Missing Brickwork or Pointing
- Missing Fillet
- Missing, Broken or Hanging Tiles
- Ridge Gaps

N

0 5 m

Project	13 Netherhall Gardens
Drawing Title	**Habitat Features and Potential Bat Roost Features Plan**
Scale	As Shown (Approximate)
Drawing No.	13154/P01a
Date	June 2020
Checked	RB

Tyler Grange
30 Stamford Street, Southbank, London, SE1 9LQ
T: 020 3934 9470 E: info@tylergrange.co.uk W: www.tylergrange.co.uk