

Ecological Impact Assessment

for

23 Crescent East, Hadley Wood

August 2023

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	Report Author:	Reviewed by:	Approved by:
Author:	Emily Costello MCIEEM	Nick Sibbett CEcol CEnv MCIEEM CMLI	Nick Sibbett CEcol CEnv MCIEEM CMLI
Job title:	Senior Ecologist	Associate Director	Associate Director

Client Details	
Client:	PK Developments
Client Address:	66 The Transmitting Station Great North Road Brookmans Park AL9 6NE

Contact Details
<p>The Landscape Partnership Ltd</p> <p>Greenwood House 15a St Cuthberts Street Bedford MK40 3JG Tel: 01234 261315</p> <p>92 St Faith's Lane Norwich NR1 4NE Tel: 01603 230777</p> <p>The Granary Sun Wharf Deben Road Woodbridge IP12 1AZ Tel: 01394 380509</p> <p>Ensign House (E&F) Tavern Quay Sweden Gate Surrey Quays London SE16 7TX Tel: 020 3092 4141</p> <p>The Landscape Partnership Ltd is a practice of Chartered Landscape Architects, Chartered Ecologists and Chartered Environmentalists, registered with the Landscape Institute and a member of the Institute of Environmental Management & Assessment & the Arboricultural Association.</p> <p>Registered Office: Greenwood House 15a St Cuthberts Street Bedford MK40 3JG Registered in England No 2709001</p>

Quality Standards
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Non-technical summary

The Landscape Partnership was commissioned by PK Developments to undertake an Ecological Impact Assessment comprising a desk study, Phase 1 Habitat Survey, an assessment of the potential of site features to support bats, together with an assessment of impacts at a site for a 23 Crescent East, Hadley Wood.

The objectives of the appraisal were to identify the habitats and species present or potentially present and evaluate their importance, assess the impact of the development proposal and describe any measures necessary to avoid impacts, reduce impacts or compensate for impacts so that there is no net harm to ecological features.

The Phase 1 Habitat survey involved classifying and recording habitat types and features of ecological interest and identified the potential for protected species to be present by assessing habitat suitability for those species.

The site comprised an irregularly shaped parcel of land that contained a dwelling, with an associated front and rear garden and driveway. Collectively the habitats within the proposed development site are assessed as being of value at the **Site Only** level.

A bat survey was previously carried out on the dwelling (Building 1) and involved two surveyors watching the elevations of the dwelling to ascertain whether bat roosting activity was occurring. The survey was undertaken by appropriately qualified and experienced personnel. The surveys found no evidence that bats were roosting within the dwelling.

Based on the habitat types present and previous surveys undertaken, it was considered that the site has potential to support the following protected species or groups of species: breeding birds and foraging bats.

The proposed development is for demolition of the existing dwelling and construction of an apartment block containing seven self-contained flats, with basement car parking facility and outdoor amenity areas for the residents.

In the absence of mitigation, the proposed development could give rise to the potential destruction of birds' nests and loss of habitats, which would give rise to a **Minor Adverse** impact upon habitats and breeding birds. Mitigation has been proposed, including removal of vegetation outside the nesting bird season and replacement native planting. This mitigation would reduce the impacts of the development proposals upon the habitats and species present, to give rise to an overall **Neutral** impact.

A number of **ecological enhancements** have been proposed, which would improve the quality of the site for native flora and fauna, including a habitat pile, a stag beetle loggery, bat boxes, bird boxes and native planting. Delivery of these enhancements would lead to an overall **Neutral-Minor Beneficial** impact.

Calculations of Biodiversity Net Gain are required in the Council's Emerging Local Plan and remain to be completed.

1 Introduction

1.1 Commission

1.1.1 The Landscape Partnership was commissioned by PK Developments to carry out an Ecological Impact Assessment, comprising a desk study, Phase 1 Habitat Survey, an assessment of the potential of site features to support bats, together with an assessment of impacts.

1.2 Legislation and policy background

1.2.1 There is a range of protection given to sites and species. Sites may be designated for local, national or global importance for nature conservation. Species may be protected by European-scale legislation or varying levels of national regulation.

1.2.2 The Local Planning Authority has a policy to protect features of nature conservation value within its Local Plan. Other regulators have policies relating to the consents issued by them.

1.2.3 Further information is given in Appendix 1.

1.2.4 Assessment was undertaken against current legislation and planning policy, and in accordance with standard guidance. Further information is given in Section 2 and Appendix 2.

1.3 Site location and context

1.3.1 The site is located within Hadley Wood, in Greater London. Access is from Crescent East to the south-west of the site. The site is an irregularly shaped parcel of land that contained one dwelling, with an associated front and rear garden and driveway.

1.3.2 The site was bounded by close board fencing and walls to separate the site from adjacent properties. The wider area consisted of residential areas of Hadley Wood, a golf course, and arable land and pasture. Monken Mead Brook is located 175m north of the site boundary but is separated from the site by housing. Covert Way Local Nature Reserve (LNR) is located 600m south of the site.

1.3.3 The Ordnance Survey Grid Reference for the approximate centre of the proposed development site is TQ 2662 9815. A plan showing the site is provided at Figure 01.

1.4 Acknowledgements

Surveyor Competencies

Survey(s) undertaken	Surveyor(s)	Experience (years)	Licences Held
Phase 1 habitat survey Preliminary bat roost inspection: Trees	Nick Sibbett CEnv CEcol MCIEEM CMLI	30+	Great crested newt Class Licence CL08 (Level 1) Bat Class Licence CL18 (Level 2) Barn Owl class Licence CL29 FISC Level 3
Bats: Preliminary Roost Assessment: Buildings Bat emergence survey	Emily Costello MCIEEM	9+	Great crested newt Class Licence CL08 (Level 1) Bat Survey Class Licence CL18 (Level 2) FISC: Level 3

1.5 Description of the project

1.5.1 The proposed development is for demolition of the existing dwelling and construction of an apartment block containing seven self-contained flats, with basement car parking facility and outdoor amenity areas for the residents. The proposals are shown in Appendix 3.

1.6 Objectives of this appraisal

1.6.1 The purpose of this appraisal is to inform a planning application for the proposed development, as described above. Detailed objectives are to:

- identify the habitats and species present or potentially present and evaluate their importance;
- identify any ecological constraints to development;
- assess the impact of the development proposal;
- identify any opportunities available for integrating ecological features within the development;
- describe any measures necessary to avoid impacts, reduce impacts or compensate for impacts so that there is no net harm to ecological features;
- propose ecological enhancements.

1.7 Previous ecological studies

1.7.1 A previous Phase 1 habitat survey, bat assessment of trees and buildings and a bat survey of the main dwelling have been undertaken by The Landscape Partnership in 2020 and 2021. This report aims to update the previous survey information and inform whether any further surveys are required.

1.8 Duration of appraisal validity

1.8.1 The assessment, conclusions and recommendations in this appraisal are based on the studies undertaken, as set out in this report, and the stated limitations. This appraisal is based on the project as described and any changes to the project would need the appraisal to be reviewed. Unless otherwise stated, the assessment, conclusions and recommendations given assume that the site habitats will continue to be used for their current purpose without significant changes until development takes place. However, changes in use or management may occur between the time of the survey and proposals being implemented. Ecological features may change naturally at any time; for example, species may be lost from existing sites or colonise new areas. Our knowledge of the ecology of the site enables us to provide an estimate of the duration of the validity of the surveys carried out and hence the applicability of this appraisal, so that any future need for review and update of this appraisal, or the surveys described within it, and the date by which such updates would become necessary, can be identified.

1.8.2 The table below sets out a guide to duration of validity of each element of each information source. If the proposed development is delayed beyond the stated timescale, updated surveys or further investigations may be required. Provided a planning application is made and validated prior to the end of the period stated below there would not normally be a requirement for further update survey except as indicated in Section 4.6.

Information source	Latest date undertaken	Guideline duration of validity from date undertaken	Notes
Desk study	22 nd May 2023	2 years	Further data may become available.
Phase 1 habitat survey	23 rd May 2023	2 years	The habitats on site may change especially if management changes.
Preliminary bat roost inspection: Trees	23 rd May 2023	2 years	Storm damage, tree felling or other factors can change bat roost potential of trees.
Preliminary bat roost inspection: Buildings	23 rd May 2023	2 years	Storm damage, maintenance, neglect or other factors can change bat roost potential of buildings.
Bats: dusk emergence survey	3 rd August 2020	2 years	Bats are a transient species which utilise a number of different roosts throughout the year

1.8.3 Following the updated building inspection, it was considered that the bat survey undertaken in 2020 was still valid. This is because the conditions of the building have improved as missing tiles

have since been replaced and therefore the bat roost potential is considered to be lower. Furthermore, no additional roosting opportunities within the buildings were identified. Taking this into consideration, this survey is considered to be valid as the bat roost potential of the building is now Negligible.

2 Methodology

2.1 Desk study methodology

- 2.1.1 Greenspace Information for Greater London was asked to provide records of protected, rare and/or priority species and details of statutory and non-statutory designated sites, within a 1km radius of the centre of the site at TQ 2662 9815. The data were received on 22nd May 2023.
- 2.1.2 The Magic website¹ was used to identify European sites within a 5km radius and national sites within a 1km radius. The Magic website was also used to identify any Natural England mitigation licences or licence returns that were present within a 1km radius from the site boundary. The Magic website was accessed on 23rd May 2023.
- 2.1.3 Aerial photographs and OS maps were used to gain initial information about the site and the surrounding area. This gives an indication of the types of habitat and species likely to be present and the setting of the site within the landscape.
- 2.1.4 Water bodies within 100m of the site were identified from the relevant 1:25,000 Ordnance Survey map sheet, to establish the need for protected species scoping surveys, such as great crested newt Habitat Suitability Index surveys. Consideration was also given to the green infrastructure of the local area.
- 2.1.5 The potential for protected, rare and/or priority species to be present on site has been considered in this assessment, taking into account the nature of the site and the habitat requirements of the species in question. Absence of records does not constitute absence of a species. Habitats on the site may be suitable for supporting other protected species that have not previously been recorded within the search area. Conversely, presence of a protected species in the search area does not imply its presence on-site. Records of alien species, non-localised records (e.g. tetrad records) and records dated before 1995 have not been described in detail but are taken into account when considering likely species presence or absence.
- 2.1.6 The data supplied by the Records Centre were considered in the assessment of potential impacts below.

Limitations to desk study methodology

- 2.1.7 In accordance with BS42020 and advice from most Local Biological Record Centres, species lists are not appended to this report but are available to the Local Planning Authority on request.
- 2.1.8 Availability of records will vary in different locations, as many depend on the presence of local experts and survey effort within the local area. An absence of a record does not necessarily indicate the absence of that species.
- 2.1.9 Greenspace Information Greater London provided its data subject to terms and conditions. The data provided must not be distributed or published for an external or public audience, for example within the appendix of a report. Local Planning Authorities may request a copy of the data from GiGL either through their Service Level Agreement or as a data search. Consequently, the methodology does not provide results which we can reproduce in this report.
- 2.1.10 A small section of the search area was located within Hertfordshire. Records from the Hertfordshire Environmental Records Centre were not sought as part of this assessment. This was not considered to be a significant limitation to desk study given the small size of the search area falling within Hertfordshire and the distance of the Hertfordshire county boundary (approximately 650m) from the site boundary.

2.2 Phase 1 habitat survey methodology

- 2.2.1 The standard Phase 1 (baseline) habitat survey methodology² was followed. Phase 1 habitat survey is a standardised system for surveying, classifying and mapping wildlife habitats, including urban areas. All habitats present and areas or features of ecological interest within such habitats

¹ MAGIC: <https://magic.defra.gov.uk/MagicMap.aspx>.

² JNCC (2010) *Handbook for Phase 1 Habitat Survey - a Technique for Environmental Audit*. Reprinted by JNCC, Peterborough.

were recorded and mapped. The survey methodology facilitates a rapid assessment of habitats and it is not necessary to identify every plant species on site. Where given, scientific names of plant species follow Stace Ed. 4³.

2.2.2 The survey visit was also used to identify potential for protected, rare and/or priority species, for example bats, mammals, amphibians and reptiles, to occur on, or in the vicinity of, the proposed development site. Although the survey methodology is not intended for species survey, any protected, rare and/or priority species which were seen during the survey were noted.

2.2.3 The survey was undertaken on 23rd May 2023 and the weather conditions were overcast (cloud cover: 80%), with a moderate breeze (Beaufort 3-4) and a temperature of 14°C.

Limitations to Phase 1 habitat survey

2.2.4 There were no significant limitations to the Phase 1 habitat survey.

2.3 Preliminary bat roost assessment methodology: Trees

Rationale

2.3.1 Bats are European Protected Species. Many roosts are within trees, and the protection given to roosts means that their presence or absence in trees on the proposed development site needs to be understood.

Methodology

2.3.2 The standard Preliminary Ground Level Roost Assessment (PRA) methodology for trees⁴ was followed. This aims to determine the actual or potential presence of bats, by inspecting for potential roost features from the ground, and determines any need for further survey and/or mitigation.

2.3.3 Trees within the proposed development area were inspected for the presence of features which may be suitable for use by roosting bats, with particular attention given to older and mature trees. A thorough inspection was undertaken, looking for features and signs indicative of bat roosts:

- woodpecker holes;
- rot holes;
- hazard beams;
- other vertical or horizontal cracks and splits, such as frost cracks in stems or branches;
- partially detached bark plates;
- knot holes arising from naturally shed branches, or branches previously pruned back to the branch collar;
- artificial holes (such as cavities that have developed from flush cuts) or cavities created by branches tearing out from parent stems;
- cankers, caused by localised bark death, in which cavities have developed;
- other hollows or cavities including butt-rots at the base of the tree;
- potential cavities in the fork between double trunks ("compression forks"), where the wood has grown around sections of bark ("included bark");
- gaps between overlapping stems or branches;
- partially detached ivy with stem diameters in excess of 50mm;
- bat, bird or dormouse boxes.

2.3.4 Signs of a bat roost, in addition to the visible presence of bats, include:

- bat droppings in or around a potential roost feature (PRF);
- odour coming from a PRF;
- audible bat squeaks at dusk or during the day in warm weather;
- staining below the PRF.

³ Stace, C (2019) *New Flora of the British Isles*. C&M Floristics. 4th Edition.

⁴ Collins, J. (ed.) (2016) *Bat surveys for professional ecologists: good practice guidelines*, Third Edition, Bat Conservation Trust.

2.3.5 Some signs, such as staining, odour or squeaking, may originate from other species, and staining may arise from wet rot which would preclude bat use. Bats or bat droppings are the only conclusive evidence of bat use, but many bat roosts have no external signs.

2.3.6 A high-power torch (Cluson Clulite) was used to inspect cavities and shaded areas of the branch structure.

2.3.7 The survey of trees included an assessment of their potential to support bat roosts using the following categories.

Category	Description
Negligible	Trees with no potential to support bats
Low	A tree of sufficient size and age to contain potential roost features, but with none seen from the ground, or where the features seen have only very limited potential to support bats.
Moderate	A tree with one or more potential roost features, that could be used by bats due to their size, shelter, protection, condition and surrounding habitat, but are unlikely to support a roost of high conservation status.
High	A 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, condition and surrounding habitat.
Confirmed roost	Trees with evidence of bats present.
Unknown	Unable to survey fully, for example because part of the tree is inaccessible.

2.3.8 The assessment was undertaken during the same visit as the Phase 1 habitat survey visit.

Limitations to preliminary bat roost assessment: trees

2.3.9 There were no significant limitations to the survey.

2.4 Preliminary bat roost assessment methodology: Buildings

Rationale

2.4.1 Bat surveys are usually needed for the building types where bats are likely to be present, which include the following types⁵.

- Agricultural buildings (e.g. farmhouses, barns and outbuildings) of traditional brick or stone construction and/or with exposed wooden beams.
- Buildings with weatherboarding and/or hanging tiles which are within 200m of woodland or water.
- Pre-1960 detached buildings and structures within 200m of woodland or water.
- Pre-1914 buildings within 400m of woodland or water.
- Pre-1914 buildings with gable ends or slate roofs, regardless of location.
- Buildings located within or immediately adjacent to woodland or immediately adjacent to water.
- Dutch barns or livestock buildings with a single-skin roof and board-and-gap or Yorkshire boarding if, following a preliminary roost assessment, the site appears particularly suited to bats.
- Churches and listed buildings.

2.4.2 This list is a guide and may be varied where professional and local knowledge can be used to justify variations. The dwelling was pre-1960 and there is woodland just over 200m distant, in an area of low density housing with large gardens and abundant trees so was selected for survey as there was a reasonable possibility of bats being present.

Methodology

2.4.3 The standard Preliminary Roost Assessment (PRA) methodology for structures⁶ was followed. This aims to determine the actual or potential presence of bats, by inspecting for potential roost features, and determines any need for further survey and/or mitigation. In many situations, it is

⁵ Collins, J. (ed.) (2016) *Bat surveys for professional ecologists: good practice guidelines*, Third Edition, Bat Conservation Trust.

⁶ Collins, J. (ed.) (2016) *Bat surveys for professional ecologists: good practice guidelines*, Third Edition, Bat Conservation Trust.

not possible to inspect all locations where bats may be present and an absence of bat evidence is not adequate evidence that bats are not present.

2.4.4 The main dwelling (Building 1) was inspected internally and externally. A search was made for direct evidence of bat presence. A systematic search pattern was used in order to avoid missing parts of the building or built structure, although some may not have been visible from accessible parts of the building. During the survey, a search was made for live or dead bats, droppings, urine splashes, fur-oil staining and clean, cobweb-free gaps around potential entrance points and crevice roost sites. The sound of bats was listened for. Feeding remains such as moth wings were also searched for, particularly internally. Potential access points and roosting sites were recorded even if there was no direct evidence of use by bats. The inspection was thorough and a consistent search effort was applied to all accessible parts of the buildings. Sometimes bats leave no visible signs of their presence in or outside a building, and rain can remove external signs.

2.4.5 The external search included the following, where these features were present:

- the ground, particularly beneath potential access points;
- any window-sills;
- window panes;
- walls
- behind peeling paint or lifted render;
- hanging tiles;
- weatherboarding;
- eaves;
- soffit boxes;
- fascias;
- lead flashing; gaps under felt, including flat roofs;
- under tiles/slates;
- gaps in brickwork or stonework;
- in bat boxes; and
- all other relevant external features.

2.4.6 The internal search included the following, where these features were present:

- the floor and surfaces of furniture and other objects;
- behind wooden panelling;
- in lintels above doors and windows;
- behind window shutters, curtains and boarded up windows;
- behind pictures, posters, furniture, peeling paintwork or wallpaper;
- behind lifted plaster;
- inside cupboards;
- in chimneys accessible from fireplaces; and
- all other relevant internal features.

2.4.7 A search of the loft void, where present, included, where these features were present:

- the tops of gable end or dividing walls;
- tops of chimney breasts, ridge and hip beams and other roof beams;
- mortise and tenon joints;
- all beams;
- the junction of roof timbers;
- behind purlins;
- between tiles and the roof lining; and
- under flat felt roofs

2.4.8 The roof void search also paid attention to:

- the floor;
- water tanks;
- stored materials and other surfaces
- under and around the edges of recently laid insulation;

- 2.4.9 A high-power torch (Cluson clulite) was used to survey the internal and external parts of the building, so that no evidence of bats was missed because of poor illumination.
- 2.4.10 The assessment was undertaken during the same visit as the Phase 1 habitat survey visit.

Limitations to preliminary bat roost assessment: buildings

- 2.4.11 There were no significant limitations to the survey.

2.5 Bats: dusk emergence survey for No.23

Rationale

- 2.5.1 Building inspections can find potential roosts for bats, including where the bats would not leave visible evidence. For example, bats accessing the roof structure under a loose tile may leave no external evidence, and droppings would be retained within the roof structure out of sight. An emergence survey would identify the presence or absence of bats on that evening. Emergence surveys can also be used to count bats, identify the species, and provide evidence of the use that bats are making of the roof.

Methodology

- 2.5.2 Based on the findings of the preliminary roost assessment (PRA) undertaken in 2020, it was determined that one emergence survey was necessary to fully understand the bat usage of No. 23. The survey was carried out by two experienced bat surveyors and followed standard guidelines⁷. Details of survey dates, timings and weather conditions are provided in the table below.

Date	Weather conditions	Sunset	Start time	End time	Surveyor(s)	Detectors used
3 rd August 2020	Bright, cloud cover reduced during the survey from 25% to 0%, with little wind (Beaufort 0, with gusts of 2) and temperatures of 17.2°C falling to 13.1°C.	20:45	20:30	22:30	Nick Sibbett & Emily Costello	Anabat Scout

- 2.5.3 Particular attention was given to the potential bat emergence points, such as the lifted roof tiles. The surveyors watched the northern and southern elevations of the building to cover priority potential roost features, looking for bats emerging the building. Anabat Scout bat detectors were used by the surveyors to identify bats and record their ultrasound calls for subsequent analysis and species confirmation using Anabat Insight software.

Limitations to bat emergence survey methodology

- 2.5.4 External lighting in the front garden and on the front elevation of the house reduced the surveyor's night vision, especially as it grew darker. There were no other significant limitations to the bat emergence survey.

2.6 Assessment methodology

- 2.6.1 The assessment was undertaken in accordance with the Chartered Institute of Ecology and Environmental Management's Professional Guidance Series⁸.
- 2.6.2 More details of the assessment methodology are provided in Appendix 2, but, in summary, the impact assessment process involves:

⁷ Collins, J. (ed.) (2016) *Bat surveys for professional ecologists: good practice guidelines*, Third Edition, Bat Conservation Trust.

⁸ CIEEM (2016) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal*, Second Edition. Chartered Institute of Ecology and Environmental Management, Winchester.

- identifying and characterising impacts;
- incorporating measures to avoid and mitigate (reduce) these impacts;
- assessing the significance of any residual effects after mitigation;
- identifying appropriate compensation measures to offset significant residual effects; and
- identifying opportunities for ecological enhancement.

2.6.3 The hierarchical process of avoiding, mitigating and compensating for ecological impacts is explained further below.

2.6.4 In Ecological Impact Assessment (EcIA) it is only essential to assess and report significant *residual* effects (i.e. those that remain after mitigation measures have been taken into account). However, it is considered good practice for the EcIA to make clear both the potential significant effects without mitigation and the residual significant effects following mitigation, particularly where the mitigation proposed is experimental, unproven or controversial. Alternatively, it should demonstrate the importance of securing the measures proposed through planning conditions or obligations.

2.6.5 Assessment of the potential impacts of the proposed development takes into account both on-site impacts and those that may occur to adjacent and more distant ecological features. Impacts can be positive or negative. Negative impacts can include:

- direct loss of wildlife habitats;
- fragmentation and isolation of habitats through loss of connectivity;
- disturbance to species from noise, light or other visual stimuli;
- changes to key habitat features; and
- changes to the local hydrology, water quality, nutrient status and/or air quality.

2.6.6 Negative and positive impacts on ecological features are characterised based on predicted changes as a result of the proposed activities. In order to characterise the impacts on each feature, the following parameters are considered:

- the magnitude of the impact;
- the spatial extent over which the impact would occur;
- the temporal duration of the impact and whether it relates to the construction or operational phase of the development;
- the timing and frequency of the impact; and
- whether the impact is reversible and over what time frame.

2.6.7 Both short-term (i.e. impacts occurring during the site clearance and construction phases) and long-term impacts are considered.

Conservation status

2.6.8 The extent to which the proposed development may have an effect upon ecological features should be determined in the light of its expected influence on the integrity of the site or ecosystem. The integrity of protected sites is considered specifically in the light of the site's conservation objectives. Beyond the boundaries of designated sites with specific nature conservation designations and clear conservation objectives, the concept of 'conservation status' is used. Conservation status should be evaluated for a study area at a defined level of ecological value. The extent of the area used in the assessment relates to the geographical level at which the feature is considered important.

2.6.9 For habitats, conservation status is determined by the sum of the influences acting on the habitats and their typical species that may affect their long-term distribution, structure and functions, as well as the long-term survival of its typical species within a given geographical area. For species, conservation status is determined by the sum of influences acting on the species concerned and inter-relationships that may affect the long-term distribution and abundance of its populations within a given geographical area.

Confidence in predictions

2.6.10 It is important to consider the likelihood that a change or activity will occur as predicted and also the degree of confidence in the assessment of the impact on ecological structure and function.

- **Certain** probability estimated at above 95%
- **Probable** probability estimated above 50% but below 95%
- **Possible** probability estimated above 5% but below 50%
- **Unlikely** probability estimated as less than 5%

Cumulative impacts

2.6.11 Consideration is also given to the potential for the development proposal to give rise to significant negative impact in combination with other proposed developments in the local area.

Overall assessment

2.6.12 An overall assessment of value and impact is provided. This is based upon the highest level or value of any of the features or species present, or likely to be present on the site. Similarly, the overall assessment of impact is the impact of greatest significance.

2.7 Mitigation hierarchy

2.7.1 The following principles underpin EcIA and have been followed, where applicable, in this assessment.

- **Avoidance** Seek options that avoid harm to ecological features (for example, by locating the proposed development on an alternative site or safeguarding on-site features within the site layout design).
- **Mitigation** Adverse effects should be avoided or minimised through mitigation measures, either through the design of the project or subsequent measures that can be guaranteed – for example, through a condition or planning obligation.
- **Compensation** Where there are significant residual adverse ecological effects despite the mitigation proposed, these should be offset by appropriate compensatory measures.
- **Enhancement** Seek to provide net benefits for biodiversity over and above requirements for avoidance, mitigation or compensation.

3 Results

3.1 Desk study results

European sites

3.1.1 There were no European sites in the search area.

Sites of national importance

3.1.2 There were no sites of national importance in the search area.

Sites of local importance

3.1.3 Information pertaining to three SINCS was returned within the data search.

3.1.4 Greenspace Information Greater London provided its data subject to terms and conditions. The data provided must not be distributed or published for an external or public audience, for example within the appendix of a report. Local Planning Authorities may request a copy of the data from GiGL either through their Service Level Agreement or as a data search. Consequently, site details are not presented here, although the data were considered in the assessment of potential impacts below. A summary page provided by Greenspace Information Greater London is provided in Appendix 4.

3.1.5 One Local Nature Reserve (LNR) was identified during the MAGIC Maps search and is detailed below.

Site	Distance from development site (approx.)	Direction	Key habitat/features of interest
Covert Way LNR	600m	S	The site consists of semi-natural deciduous woodland. The site supports green and greater spotted woodpeckers, muntjac and butterflies, including the white-letter and purple hair-streaks.

Protected, rare and/or priority species

3.1.6 A number of species records were returned for the search area. Records for protected, rare and/or priority species from within the search area are summarised below. In accordance with BS42020 and advice from most Local Biological Record Centres, species lists are not appended but are available to the Local Planning Authority on request.

3.1.7 Greenspace Information Greater London provided its data subject to terms and conditions. The data provided must not be distributed or published for an external or public audience, for example within the appendix of a report. Local Planning Authorities may request a copy of the data from GiGL either through their Service Level Agreement or as a data search. Consequently, species information is not presented here, although the data were considered in the assessment of potential impacts below. A summary page provided by Greenspace Information Greater London is provided in Appendix 4.

3.1.8 The data below has been sourced from Magic Maps.

Amphibians including great crested newts

3.1.9 A search on MAGIC maps for great crested newts (GCN) *Triturus cristatus* survey licence returns and mitigation licenses⁹ revealed that none were found within a 1km radius of the site boundary.

Dormouse

3.1.10 A search on MAGIC maps for dormice mitigation licenses and licence returned⁹ revealed that none were found within 1km of the site boundary.

⁹ MAGIC: <https://magic.defra.gov.uk/MagicMap.aspx>. [Date Accessed 23rd May 2023]

Bats

- 3.1.11 A search on MAGIC maps for bat mitigation licenses and licence returns⁹ revealed that common pipistrelle *Pipistrellus pipistrellus* was found within the search area.

3.2 Phase 1 habitat survey results

- 3.2.1 Eight Phase 1 habitat categories were identified during the Phase 1 habitat survey and are shown on Figure 01. Each habitat is described below.

Management, setting and green infrastructure

- 3.2.2 The site consisted of a dwelling that was currently occupied. The garden comprised amenity grassland that was regularly managed with introduced shrubs and trees bordering the grassland. The grassland and shrub beds appeared to be regularly maintained.

- 3.2.3 The site was bounded by close board fencing and walls to separate the site from adjacent properties. The wider area consisted of residential areas of Hadley Wood, a golf course, and arable land and pasture. Monken Mead Brook is located 175m north of the site boundary but is separated from the site by housing. Covert Way Local Nature Reserve (LNR) is located 600m south of the site.

A3.1 Scattered trees

- 3.2.4 A number of scattered trees were present within the site and predominantly situated in close proximity to the property boundaries. Tree species included both broadleaved, coniferous and ornamental species, including copper beech *Fagus sylvatica f. purpurea*, yew *Taxus baccata*, apple *Malus* sp., Lawson's cypress *Chamaecyparis lawsoniana*, cherry *Prunus avium*, ash *Fraxinus excelsior*, willow *Salix* sp., silver birch *Betula pendula*, beech *Fagus sylvatica* and horse chestnut *Aesculus hippocastanum* and.

- 3.2.5 Two lime *Tilia x europaea* trees were located at the site frontage along Crescent East road.

C3.1 Tall ruderal vegetation

- 3.2.6 A small area of ruderal vegetation was located in the rear corner of the garden. Species within this area were dominated by cleavers *Galium aparine*, with bramble *Rubus fruticosus* agg., nettle *Urtica dioica* and meadow grass *Poa* sp.

J1.2 Amenity grassland

- 3.2.7 The grassland within the front and rear gardens of the dwelling appeared to be regularly mown. The sward height at the time of the survey was uniform and was less than 5cm in height.

- 3.2.8 Grass species within the sward included fescue grass *Festuca* sp., meadow grass, perennial ryegrass *Lolium perenne* and bent *Agrostis* sp. Forbs were occasional throughout the sward and included white clover *Trifolium repens*, black medick *Medicago lupulina*, daisy *Bellis perennis*, field speedwell *Veronica persica* and creeping buttercup *Ranunculus repens*.

J1.4 Introduced shrubs

- 3.2.9 Introduced shrubs were situated within the front and rear gardens and surrounding the main dwelling. These shrubs formed a border around the garden and also bordered hard-surfaced paths within shrub beds. These shrub beds appeared to maintain on a regular basis. Species included cherry laurel *Prunus laurocerasus*, yew, holly *Ilex aquifolium*, *Mahonia* sp., snowberry *Symphoricarpos albus*, *Fatsia japonica*, bamboo *Bambusa vulgaris*, ornamental roses *Rosa* sp. ferns, ornamental heather *Calluna* sp., Himalayan honeysuckle *Leycesteria formosa*, lilac *Syringa* sp., box *Buxus* sp. and Japanese maple *Acer japonica*. Although some native species were present within the shrub beds, the majority of the species were ornamental.

J2.4 Fence

- 3.2.10 The site was predominantly surrounded by close-board fencing. This fence contained close-board panels with concrete supports and bases.

J2.5 Wall

- 3.2.11 Brick walls, of varying heights, were located in close proximity to dwelling and the majority acted as retaining walls, due to the different levels within the site.

J3.6 Building

- 3.2.12 One dwelling and a shed were present within the site boundary. Full building descriptions can be found in Section 3.4.

J4 Hardstanding

- 3.2.13 The driveways and footpaths around the properties consisted of this habitat type. Types of hardstanding included paving slabs, gravel and asphalt.

3.3 Preliminary bat roost assessment results: Trees

- 3.3.1 None of the trees within the site boundary provided roosting opportunities for bats. The location of the trees surveyed are shown on Figure 02.
- 3.3.2 Since the previous survey undertaken in 2021, two of the trees had been removed. One of these trees (*Malus* sp.) previously provided high bat roost potential. Following an endoscope investigation in 2021 no bats or evidence of bats such as droppings were found within this tree at that time.

3.4 Preliminary bat roost assessment results: Building

Plans of the building surveyed

- 3.4.1 The building which was surveyed are shown on Figure 01. Plans of Building 1 are shown in Figure 03.

No.23 Crescent East– Building 1

External

- 3.4.2 This dwelling was constructed in 1938 according to the previous occupier and consisted of a 2.5 storey dwelling, with the top floor within the roof space. A small roof void was present within the roof, that surrounded the top floor rooms.
- 3.4.3 The house was covered in white rendering above a brick base of approximately 1m in height. The brickwork and render were in good condition. Verges, where present, were in good condition.
- 3.4.4 The wooden soffits were in good condition; however there was a gap between the soffits and the walls of the dwelling. This gap provided potential bat access into the roof void. No evidence of bats, such as droppings or urine splashes, were found on the ground or on the wall beneath the eaves.
- 3.4.5 The windows and doors were either metal or uPVC frames with glass panes and were in good condition. The front door on the southern elevation and a side door on the eastern elevation were wooden and in good condition. The windows and doors did not offer access into the building or external roosting features. A hole had been cut out of the side door to provide access for pets, this hole had the potential to provide bat access into the building; however, no evidence of this was seen.
- 3.4.6 A conservatory was present at the northern elevation and was constructed from uPVC frames with glass panes and on a brick plinth of approximately 1m. The conservatory was in good condition and did not offer roosting opportunities for bats. The lead-flashing that was attached to the conservatory and the wall of the dwelling had a small and shallow gap at the side of the flashing. This gap was considered to be too shallow and open to provide suitable roosting opportunities for bats.
- 3.4.7 The hipped roof was covered in clay tiles that were close fitting and did not offer roosting opportunities for bats. Missing roof tiles that were observed in previous visits had been replaced. The ridge tiles and hip ridge tiles were in good condition and were well-sealed. Several skylights were located within the roof on the northern and southern elevation and were well-sealed.

- 3.4.8 A dormer was present on the northern elevation and hanging tiles were present on its sides. These hanging tiles were generally tightly fitting and did not offer external roosting features for bats.
- 3.4.9 The lead flashing at the chimney base and in locations where the roofs on the lower floors met the wall were in good condition.
- 3.4.10 A single storey garage was attached to the house at the eastern elevation and had a similar construction style to the house. The roof was covered in clay tiles and consisted of a hipped roof with a large section of flat roof in the centre. Roof tiles were missing to provide ventilation; however, a mesh was covering the holes, which would prevent bat access into the garage. The soffits were in good condition and well-sealed. A metal garage door was located at the northern elevation of the garage. This door was tightly fitted to the door frame and did not provide potential bat access into the garage.

Internal roof voids

- 3.4.11 The loft void in the main house surrounded the rooms on the top floor, resulting in a small void in the roof. The apex of the void was approximately 3m in height and the roof sloped to eaves from this apex. The wooden beams were in good condition and did not offer roosting opportunities for bats. The roof was lined with a membrane. This membrane had a modern appearance and had likely replaced the original lining when the original roof was converted. This membrane was in good condition and no tears or rips were noted. Light ingress was seen at the eaves of the roof void, indicating that the gaps seen externally, did provide potential bat access into the roof void. This void contained a high quantity of cobwebs.
- 3.4.12 The void above the garage was approximately 0.5m in height and contained fibre glass insulation. The beams were in good condition and did not provide roosting opportunities for bats. No light ingress was seen at the time of the survey. This void contained a high quantity of cobwebs.
- 3.4.13 No bats or evidence of bats (e.g. bat droppings or feeding remains) were found within either the roof void.

Outbuildings for No.23

- 3.4.14 The only other structure within the site was a garden shed that was constructed from softwood panelling and had a softwood frame. The roof was covered in bitumen felt, probably directly onto wooden sheet material. This shed did not offer any roosting potential for bats.

3.5 Bats: dusk emergence survey for No. 23

Dusk emergence survey – 3rd August 2020

- 3.5.1 Two species of bat were recorded during the survey:

- Common pipistrelle *Pipistrellus pipistrellus*
- Noctule *Nyctalus noctula*

Roosting

- 3.5.2 No bats were seen emerging from No. 23 during the survey.

Foraging/commuting activity

- 3.5.3 The first bat was heard at 21:03 (18 minutes after sunset) and was identified as a common pipistrelle. This bat flew behind the surveyor from east to west and did not emerge from the building. A common pipistrelle was observed constantly foraging over the grassland and introduced shrubs in the rear garden from 21:10 until 21:18. This bat did not emerge from the building and flew in from the west of the site. Following this constant foraging, a further five foraging passes by common pipistrelle were heard in the rear garden between 21:22 and 22:10. These foraging passes were infrequent.
- 3.5.4 Several passes by common pipistrelles were heard by the surveyor positioned at the front of the property but the bats were not seen. The first call was heard at 21:18 (33 minutes after sunset) and the last at 22:29 (1 hour and 44 minutes after sunset). These calls were probably from bats

that were flying past the site and may well have been from the bat recorded at the rear of the house.

- 3.5.5 A single noctule pass was heard by the surveyor positioned in the rear garden at 21:22 (27 minutes after sunset).
- 3.5.6 The survey finished at 22:30 (1 hour and 45 minutes after sunset) with suitable and stable weather conditions throughout. Figure 04 illustrates bat activity in the vicinity of the building during the evening.

4 Evaluation of conservation status and impact assessment

4.1 Assessment rationale

4.1.1 The assessment is based on the ecological data presented within this report. Future changes in the wildlife present on site are beyond the scope of this report, unless specifically stated.

4.2 Evaluation of conservation status and assessment of designated sites

4.2.1 The ecological value of the site is considered below and evaluated using the methodology set out in Appendix 2 and in accordance with species legislation and planning policy, as outlined in Appendix 1.

European sites

4.2.2 There are no European sites within the search area. The impact of the proposed development upon European designated sites is therefore assessed as **Neutral**.

Sites of national importance

4.2.3 There are no sites of national importance in the search area.

4.2.4 Sites of Special Scientific Interest (SSSI) Impact Risk Zones are used to assess the necessity to consult Natural England on planning applications at varying distances from SSSIs. In accordance with the SSSI Impact Risk Zones User Guidance¹⁰ consultation with Natural England would be required for the proposed development site for:

- **Infrastructure:** Airports, helipads and other aviation proposals.
- **Minerals, Oil & Gas:** Oil & gas exploration/extraction.
- **Air Pollution:** Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t.
- **Combustion:** General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/combustion.

4.2.5 The proposed development does not fall within these categories and therefore does not require consultation with Natural England.

4.2.6 The impact of the proposed development upon sites of national importance is considered to be **Neutral**, due to the distance of the proposed development from the designated sites, the reasons for the sites' designation and the character of the development within its local context.

Sites of local importance

4.2.7 One Local Nature Reserve (LNR) and three Sites of Nature Conservation Interest (SINC) were present within 1km of the site. These sites are assessed as being of **Medium** importance for wildlife at the **County** scale.

4.2.8 The proposed development is for six net dwellings. It is considered that the low number of flats proposed and the context of the proposed development in an already well-developed area that there should be no significant impact upon sites of local importance. The impact of the proposed development upon the site of local importance is considered to be **Neutral**, due to the distance of the proposed development from the designated site, the reasons for the site's designation and the character of the development within its local context.

4.3 Evaluation of conservation status and assessment of habitats and green infrastructure

Habitats

4.3.1 Habitats of higher ecological value included the trees, with the introduced shrubs offering low to moderate ecological value, particularly to nesting birds. It is recommended that the mature trees

¹⁰ Magic Maps www.magic.defra.gov.uk/MagicMap.aspx

are retained, where possible. There will be a loss of introduced shrubs as a result of the proposed development, this habitat should be replaced with native shrub species or shrub species of wildlife value. The value of the habitats within the site are considered to be **Lower** at the **Site Only** scale. The impact of the development upon habitat is considered to be **Neutral**.

Green infrastructure

4.3.2 The site lacks significant green infrastructure that links to the local area, contributing no more than any of the domestic gardens in the area. The boundary vegetation offers some linkage around the site and this should be enhanced within the proposed development.

4.4 Evaluation of conservation status and assessment of species

Veteran trees

4.4.1 There are no veteran trees present on the site and the value of the proposed development site for these is therefore **Negligible**. The impact of the proposed development upon veteran trees is **Neutral**.

Plants

4.4.2 The character of the habitats recorded at the site and the plant records returned for the local area, suggests that the site has no potential to support protected, rare and/or priority plants. The value of the proposed development site for this group is **Negligible** and the impact of the proposed development is **Neutral**.

Invertebrates

4.4.3 The character of the habitats recorded at the site and the invertebrate records returned for the local area, suggests that the site has no potential to support protected, rare and/or priority invertebrates. The value of the proposed development site for this group is **Negligible** and the impact of the proposed development is **Neutral**.

Amphibians including great crested newts

4.4.4 Natural England's *Method statement template for great crested newt mitigation licence*¹¹ is used to determine the risk of great crested newts being harmed by the development. The area of the site is measured from OS maps and inputted into the great crested newts rapid risk assessment as part of the NE method statement. This informs the distance from the site boundary, whether that be 100m, 250m or 500m, required to identify that an offence to great crested newts is *highly unlikely*, see table below. A large-scale OS map is then inspected to identify any ponds within the buffer distance.

Distance of breeding pond (m)	Maximum area lost or damaged (hectares)		
	Green: <i>Offence highly unlikely</i>	Amber: <i>Offence likely</i>	Red: <i>Offence highly likely</i>
0 - 100	Up to 0.01	0.01-0.5	>0.5
100 - 250	Up to 0.5	0.5-10	>10
250+	Up to 5	5-10	N/A

4.4.5 Guidance on risk assessment categories

- **'Green', offence highly unlikely:** indicates that the development activities are of such a type, scale and location that it is highly unlikely any offence would be committed should the development proceed. Therefore, no licence would be required. However, precautions may need to be taken to avoid an offence.
- **'Amber', offence likely:** indicates that the development activities are of such a type, scale and location that it is likely. Design plans for the development may need to be altered (location, layout, methods, durations or timings) to minimise the effect on great

¹¹ <https://www.gov.uk/government/publications/great-crested-newts-apply-for-a-mitigation-licence>

crested newts and if the scheme still results in a likely offence a licence may be required to carry out the works.

- **'Red', offence highly likely:** indicates that the development activities are of such a type, scale and location that it is highly likely. Design plans for the development should be altered (location, layout, methods, durations or timings) to minimise the effect on great crested newts and if the scheme still results in a likely offence a licence may be required to carry out the works.

4.4.6 The rapid risk assessment is a simplistic assessment and provides a general overview of a situation. The following factors should be considered when using the rapid risk assessment; population size, terrestrial habitat quality, presence of dispersal barriers, timing and duration of works, detailed layout of development in relation to places newts may use for shelter and dispersal routes. The following factors could increase the risk of committing an offence: large population size, high pond density, good terrestrial habitat, low pre-existing habitat fragmentation, large development footprint, and long construction period. The following factors could decrease the risk: small population size, low pond density, poor terrestrial habitat, substantial pre-existing dispersal barriers, small development footprint and short construction period.

4.4.7 The area of the site is approximately 0.2ha, therefore any waterbodies within 100m of a breeding pond for great crested newt would cause an *Amber: Offence likely* impact. Any waterbodies over 100m from the site boundary would cause a *Green: Offence highly unlikely* impact. There were no ponds within the site or within 100m of the site boundary on large-scale Ordnance Survey maps.

4.4.8 The habitats within the site boundary were dominated by buildings, hardstanding and amenity grassland associated with garden habitat. The garden habitats offer very limited opportunities for the terrestrial stage of the great crested newts lifecycle. Furthermore, the development site is not well-connected to more suitable terrestrial or breeding habitat within the wider area.

4.4.9 Taking into consideration the limited amount of suitable terrestrial habitat within the site, the site area, lack of connectivity to suitable habitat within the local area and lack of ponds within close proximity to the site; this suggests that there is no reasonable likelihood of great crested newts being present. The value of the proposed development site for this group is **Negligible** and the impact of the proposed development is **Neutral**.

Reptiles

4.4.10 The habitats within the site were dominated by buildings, hardstanding and amenity grassland, which provide limited opportunity for reptile species. The introduced shrub areas offer some sheltering opportunities; however, the ground flora/understorey of these areas was not very dense. Furthermore, the site is not well connected to suitable reptile habitats within the local area, as it is surrounded by houses.

4.4.11 Taking into consideration the limited amount of suitable habitat within the site, small size of the site and lack of connectivity to suitable habitat within the local area; it is considered that the site is of **Negligible** value for this group. There, the impact of the development upon reptiles is considered to be **Neutral**.

Birds

Breeding birds

4.4.12 The site is likely to be used by common breeding bird species, both for nesting and foraging, with the trees and garden shrub habitats being of greatest value in this respect. It is considered that the value of the site to breeding birds is **Lower** at the **Parish** scale. There would be a loss of nesting habitat due to the loss of garden shrubs. Under current design plans, the majority of the trees will be retained as they are located at the boundaries. The unmitigated impact is considered to be **Minor Adverse**. Mitigation has been proposed to reduce impacts to **Neutral**.

Wintering birds

- 4.4.13 There are no habitats present on site which might support significant populations of wintering birds, although the site does offer some limited foraging potential for small numbers of common species. The site is considered to be of **Negligible** value for this group.

Dormice

- 4.4.14 The habitats present offer an inadequate resource for this species and the site was not well-connected to more suitable habitats within the local area.
- 4.4.15 The site is therefore considered to be of **Negligible** value for this species and the impact of the proposed development is **Neutral**.

Aquatic mammals including water voles and otters

- 4.4.16 There are no watercourse or waterbodies within the site boundary or within close proximity to the site that are considered suitable for water voles or otters.
- 4.4.17 The terrestrial habitat within the site is not considered suitable for otters or water voles and the site is ecologically separated from Monken Mead Brook (approximately 175m north of the site) by housing.
- 4.4.18 The character of the habitats recorded at the site, records returned for the local area and lack of suitable watercourse and waterbodies within the local area, suggests that the site has no potential to support protected, rare and/or priority aquatic mammals. The value of the proposed development site for this group is **Negligible** and the impact of the proposed development is **Neutral**.

Terrestrial mammals including badgers

- 4.4.19 The site provided suitable foraging habitat for badgers, hedgehogs and urban foxes. The introduced shrub habitat offered limited cover for sett creation by badger. No evidence for badgers or hedgehogs was found during the site visit.
- 4.4.20 Considering the limited suitability for sett creation, lack of evidence found during the site visit and limited connectivity to more suitable foraging and sett creation habitats within the local area; it is considered the site is of **Negligible** value for this group. Therefore, the impact of the development is considered to be **Neutral**. Mitigation measures to safeguard terrestrial mammals during construction have been suggested in Section 5.

Bats

Roosting potential - trees

- 4.4.21 None of the trees within the site boundary offered roosting potential for bats. The value of the trees for roosting bats is therefore **Negligible**. The impact of the development upon roosting bats within these trees is considered to be **Neutral**.

Roosting potential - buildings

- 4.4.22 In 2020, the level of roost potential of the dwelling was considered to be Low, this was due to potential roost features identified beneath missing roof tiles. In 2020 there was also some uncertainty in bat use because it was not possible to carry out an internal inspection. The 2020 assessment of bat use reflected this uncertainty. In 2023, it was confirmed that there was no evidence of bats in the roof void during the internal inspection.
- 4.4.23 Since the 2020 surveys, the missing roof tiles have been replaced and so the level of roost potential for bats is lower. At the time of the 2023 inspection no evidence of bats was found internally or externally and no additional potential roost features were found. The building has therefore been reassessed as providing **Negligible** bat roost potential. Furthermore, the bat survey undertaken in 2020 of the dwelling indicated that bats were not roosting in this building and that the level of bat activity within the vicinity was very low.
- 4.4.24 The value of this building to roosting bat is **Negligible** and the impact of the development upon bats roosting in this building is **Neutral**.

4.4.25 The shed did not offer any bat roost potential and were assessed as providing **Negligible** value for roosting bats.

Foraging/commuting potential

4.4.26 Based on the evidence gained during the Phase 1 and bat survey undertaken in 2020, the site is predominantly used for occasional commuting and foraging purposes by relatively common and widespread bat species. The trees and introduced shrub habitats provide some foraging opportunities. The value of the site for foraging/commuting bats is considered to be **Lower** at the **Site only** scale.

4.4.27 Under current design plans, the majority of the trees at the boundaries are being retained. New tree planting is proposed under current design plans. The impact of the development is therefore considered to be **Neutral**.

4.5 Cumulative impacts

4.5.1 There are no known cumulative impacts.

4.6 Proposals for further survey or investigation

4.6.1 No further surveys are necessary at this stage.

Biodiversity Net Gain calculations

4.6.2 Some Local Planning Authorities require calculations of Biodiversity Net Gain using the national standard Defra metric, although a small proportion of those councils prefer a different metric. The areas of habitats are given various values, and a calculation of those values and habitat area provides the number of biodiversity units a development site has, before development and for the proposals. An appeal decision in October 2020¹² made it clear that where a Local Plan requires Net Gain measured using a metric, but does not quantify the amount of Net Gain, there is no need to meet the 10% Net Gain requirements of the Environment Act 2022 as those requirements are not yet introduced through secondary legislation.

4.6.3 The emerging local plan¹³ for Enfield is proposing Policy BG3 Biodiversity net gain, rewilding and offsetting which indicates that a Defra metric should be used to quantify biodiversity net gain and a minimum of 10% net gain should be achieved.

4.6.4 It is therefore recommended that a Biodiversity Net Gain calculation is prepared to support a planning application.

¹² Planning Inspectorate (14th October 2020) Appeal Ref: APP/Y0435/W/20/3251121
Land at Brickhill Street, South Caldecotte, Milton Keynes MK17 9FE

¹³ Enfield Council (June 2021) Enfield Local Plan Main issues and preferred approaches

5 Mitigation and avoidance measures

5.1 Avoidance measures

5.1.1 The following impact avoidance measures have been identified and will be delivered.

Habitats

- All mature trees will be retained in-situ and should be protected in the built-scheme.

Breeding birds

- Vegetation removal required for the construction phase should take place outside the bird breeding season of March to August inclusive, to prevent disturbance to birds.

5.2 Proposed mitigation for known impacts

5.2.1 No mitigation is needed for the following ecological features, because no significant impacts have been identified: European sites, nationally and locally important sites, rare plants, invertebrates including stag beetle, amphibians including great crested newts, reptiles, breeding and wintering birds; dormice and aquatic mammals including water voles and otters.

5.2.2 The following mitigation is required to reduce the impacts of the scheme to within acceptable limits.

Habitats

- Ensure that no works come closer than Root Protection Zones of trees and shrubs (as a minimum) in retained habitats.

Terrestrial mammals

- Trenches should be filled in prior to the end of the working day, or a plank left leaning up from the base of the trench to the surface, so that animals falling in can get out of the excavation.
- Pipework should be closed off at the end of each working day to avoid badgers and other animals becoming trapped.

Bats

- External lighting should be reduced to a minimum and designed in accordance with guidelines from the Bat Conservation Trust.¹⁴

5.3 Compensation for ecological impacts

5.3.1 The following compensation is required to reduce the impacts of the scheme to within acceptable limits.

Habitats

- Replacement tree and shrub planting should include berry-bearing native trees and shrubs to enhance food availability for wildlife.
- Ornamental planting should constitute at least 50% by area of species of known value to wildlife (which might include native species), such as fruiting species and species known to provide a good nectar source. All ornamental planting should be structurally diverse, with tree, shrub and ground layers as appropriate, and areas of dense planting as well as more open areas.

5.4 Species licensing

5.4.1 No species licensing is considered necessary.

¹⁴ See <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>

6 Enhancement measures

6.1 Ecological enhancement

6.1.1 Ecological enhancement aims to improve the quality of the site and the immediate vicinity for native flora and fauna. Such enhancements can also provide aesthetic appeal and can add value to the proposed development.

6.1.2 Enhancement opportunities specific to the development proposals for this site are provided below. It is not anticipated that all of these options would be utilised. The options are listed in order of priority, with habitat enhancements having most benefit to wildlife. Small-scale enhancements targeted at individual species, whilst valuable, are generally of less overall benefit than habitat enhancement measures.

6.2 Habitat enhancement

6.2.1 Wherever possible, planting would use native species, which support biodiversity significantly better than non-native plants. This is due to the numbers of flowers, fruits, seeds and berries that are produced by our native species and their different flowering and fruiting times throughout the year.

6.2.2 Habitat enhancements include the following.

- A wildlife garden should be created within the grounds of the proposed building and could include areas of wildflower meadow, native shrubs, fruit trees and insect boxes.
- The boundary vegetation should be strengthened by further planting, including berry-bearing species to provide for bird foraging, and native species to attract insects. A structurally diverse range of plants should be used, including shrubs large enough to support nesting birds.

6.2.3 These enhancements would benefit common invertebrates, breeding birds and bat foraging.

6.3 Small-scale species enhancement measures

6.3.1 Small-scale enhancements to benefit individual species/species groups would include the following.

- Three bat boxes (e.g. Vivara, Ibstock, Habibat or similar), suitable for a range of bat species, should be installed into the proposed building. Bat boxes should be positioned south-east to south-west facing and be positioned at least 5m above ground level.
- Two bird boxes (e.g. Vivara or similar), suitable for a range of bird species, should be erected on retained standard trees in undisturbed parts of the site.
- Two swift boxes should be installed into the proposed building. Swift boxes should be positioned on the northern and/or eastern elevation and be position at least 5m above ground level.
- One stag beetle loggery should be created, using hardwood logs retained from felled trees, and partly bury them in a quiet, sheltered corner of the site to provide deadwood beetle habitat.

7 Recommendations

7.1 Recommended further work needed prior to an application

- 7.1.1 A Landscape Strategy is required, to be able to demonstrate that the proposed ecological mitigation and/or enhancements are achievable and to support a biodiversity net gain metric.
- 7.1.2 Completion of a Biodiversity Net gain metric, as recommended in Section 4.6.

7.2 Recommended conditions

- 7.2.1 It is recommended that the following conditions, based on model conditions in Appendix D of BS42020:2013, are applied to the planning permission.
- 7.2.2 No removal of hedgerows, trees, bramble or shrubs shall take place between 1st March and 31st August inclusive.

8 Conclusions

- 8.1.1 The purpose of this report was to inform a planning application for the proposed development.
- 8.1.2 The overall value of the site to wildlife is considered to be **Lower** at the **Site Only** scale.
- 8.1.3 A summary of assessments of value and the impact of the proposed development without mitigation, and the residual significant effects following mitigation, is provided in the table below.

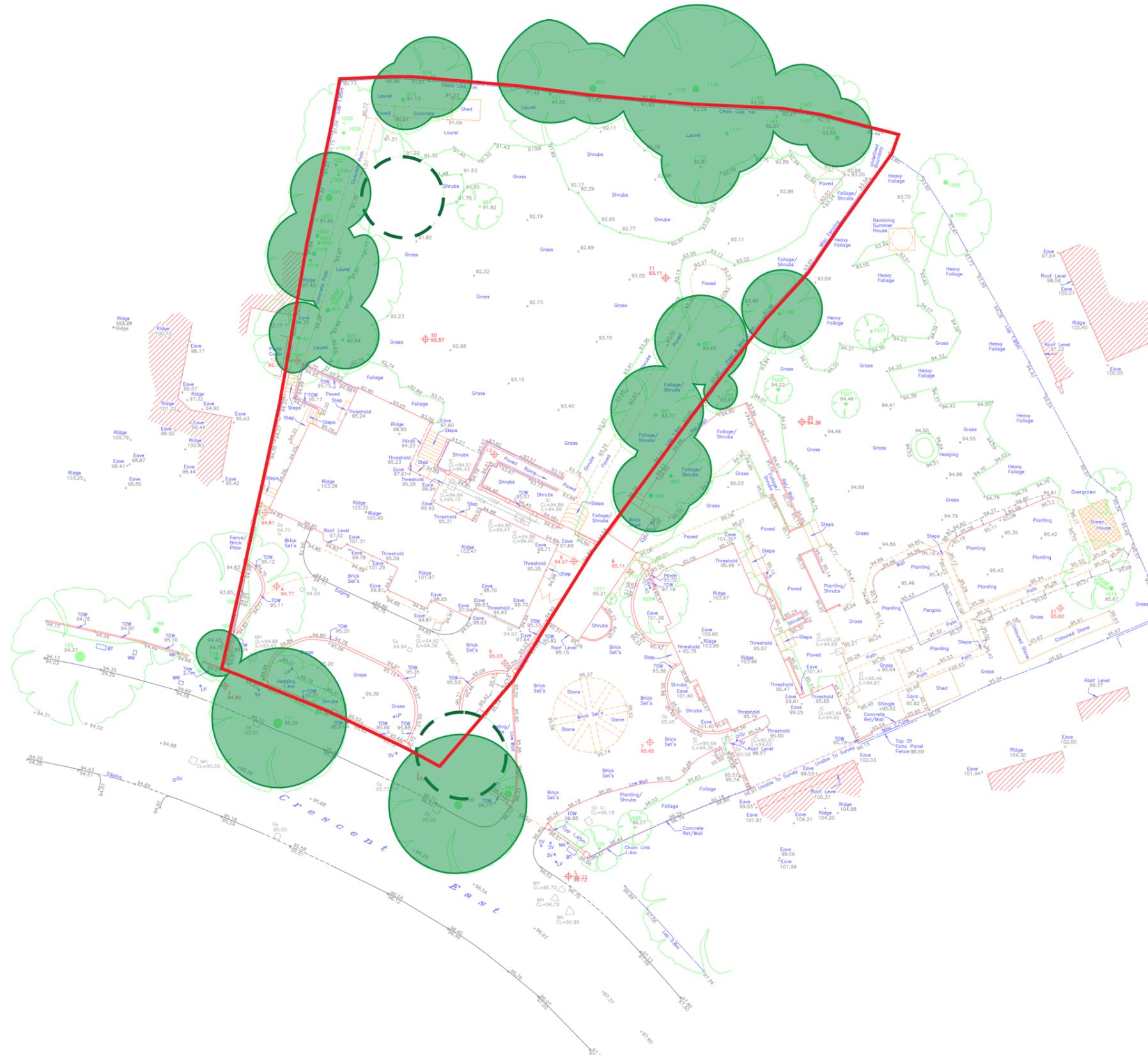
Feature	Level of value	Scale	Unmitigated impact	Confidence level	Mitigated impact
European sites	Very High	European	Neutral	Certain	-
Sites of national importance	High	National	Neutral	Certain	-
Sites of local importance	Medium	County	Neutral	Probable	-
Habitats	Lower	Site Only	Neutral	Probable	-
Veteran trees	Negligible	-	-	-	-
Plants	Negligible	-	-	-	-
Invertebrates	Negligible	-	-	-	-
Amphibians including great crested newts	Negligible	-	-	-	-
Reptiles	Negligible	-	-	-	-
Breeding birds	Lower	Parish	Minor Adverse	Probable	Neutral
Wintering birds	Negligible	-	-	-	-
Dormice	Negligible	-	-	-	-
Aquatic mammals including water voles and otters	Negligible	-	-	-	-
Terrestrial mammals including badgers	Negligible	-	-	-	-
Bats: Roosting in T15	Negligible	-	-	-	-
Bats: Roosting in buildings	Negligible	-	-	-	-
Bats: Foraging/commuting	Lower	Site Only	Neutral	Probable	-

- 8.1.4 No further survey is considered necessary at this stage.
- 8.1.5 The overall impact of the proposals is considered to be **Minor Adverse** in the absence of mitigation. The mitigated impact is considered to be **Neutral**.
- 8.1.6 The adoption of all or most of the enhancement measures detailed in Section 6 above would give rise to a **Neutral-Minor Beneficial** impact.

Figures

Key

-  Site Boundary
 -  Trees no longer present
- Level of bat roost potential*
-  Negligible
 -  Low
 -  Moderate
 -  High



B23051 - 23 Crescent East, Hadley Wood

Preliminary Roost Assessment for Bats: Trees

Figure 02

Scale: NTS

May 2023



Key



Site Boundary

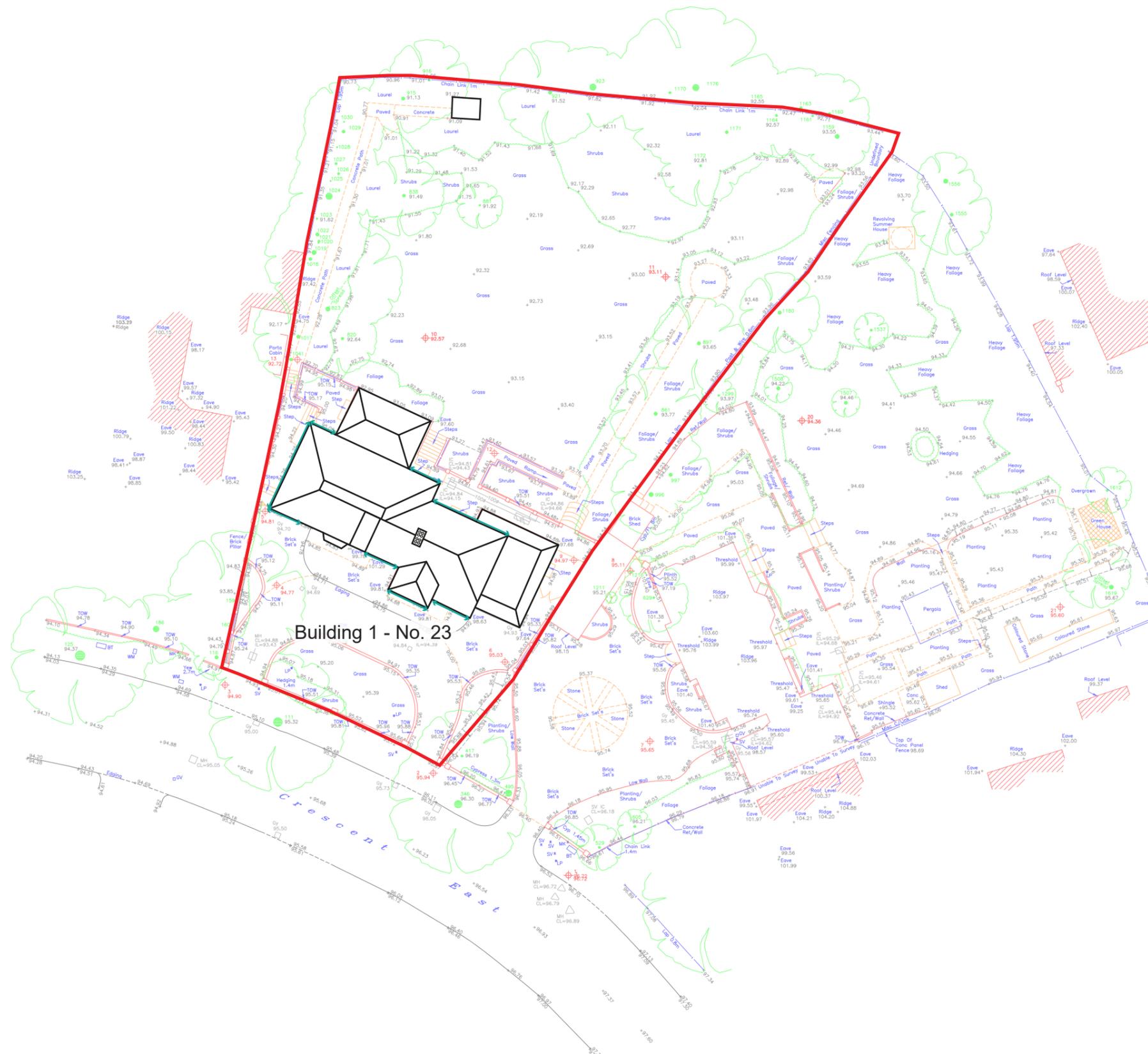


Roof plan

Potential Bat Roost Features



Gap at eaves



Building 1 - No. 23

B23051 - 23 Crescent East, Hadley Wood

Preliminary Roost Assessment for Bats:
Buildings

Figure 03

Scale: NTS

May 2023



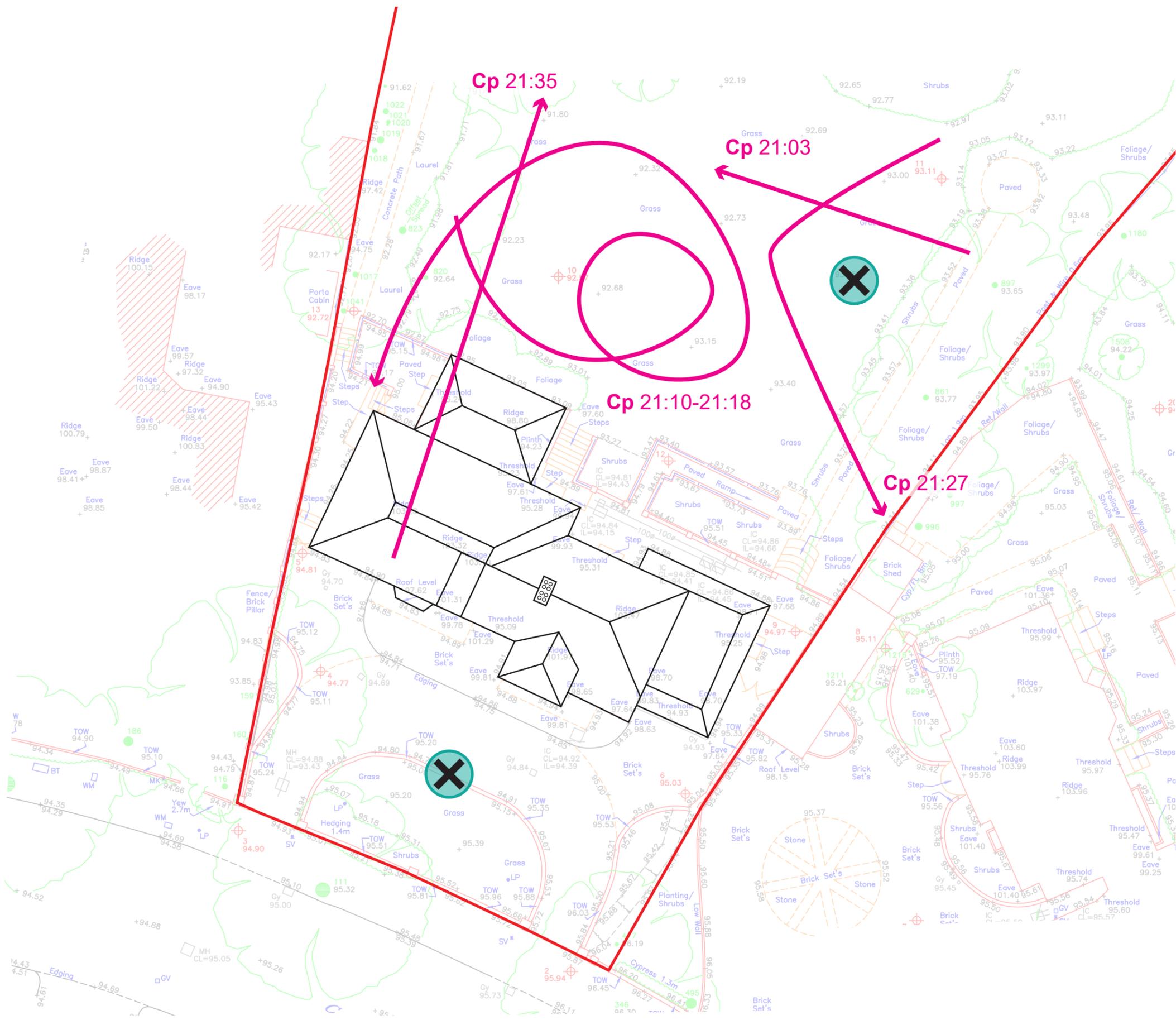
Key

-  Site Boundary
-  Roof plan
-  Location of surveyors
-  Bat flight indicative at time (non-emergence)

Bat species

-  Common pipistrelle

Survey conditions
 3rd August 2020
 20:30-22:30. Sunset 20:45
 Bright, cloud cover reduced during the survey from 25% to 0%,
 with little wind (Beaufort 0, with gusts of 2) and temperatures
 of 17.2°C falling to 13.1°C.



B23051 23 Crescent East, Hadley Wood

Bat Survey - Dusk Emergence #1 -
 3rd August 2020

Figure 04

Scale: NTS

August 2020



Appendix 1

Legislative and policy context

There is a number of pieces of legislation, regulations and policies specific to ecology which underpin this assessment. These may be applicable at a National or Local level. References to legislation are given as a summary for information and should not be construed as legal advice.

Birds Directive

The European Community Council Directive on the Conservation of Wild Birds (79/409/EEC), normally known as the Birds Directive, sets out general rules for the conservation of all naturally occurring wild birds, their nests, eggs and habitats. It was superseded by the 'new' Birds Directive (2009/147/EC) which generally updated the previous directive.

Since the end of the Brexit transition period on 31st December 2020 the Birds Directive no longer is part of the UK legal system.

Habitats Directive

The European Community Council Directive on the Conservation of Natural Habitats of Wild Fauna and Flora (92/43/EEC), normally known as the Habitats Directive, aims to protect the European Union's biodiversity. It requires member states to provide strict protection for specified flora and fauna (i.e. European Protected Species) and the registration and regulation of Special Areas of Conservation.

Since the end of the Brexit transition period on 31st December 2020 the Habitats Directive no longer is part of the UK legal system.

Conservation of Habitats and Species Regulations 2017

The Conservation of Habitats and Species Regulations 2017 generally follow the Birds Directive and Habitats Directive but unlike the Directives there is no role for the European Union; the UK Government has taken that role following the end of the Brexit transition period on 31st December 2020. For clarity, the following paragraphs consider the case in England only, with Natural England given as the appropriate nature conservation body. In Wales, the Countryside Council for Wales is the appropriate nature conservation body.

Special Protection Areas and Special Areas of Conservation are defined in the regulations as forming a national network of 'European sites'. The Regulations regulate the management of land within European sites, requiring land managers to have the consent of Natural England before carrying out management. Byelaws may also be made to prevent damaging activities and if necessary land can be compulsorily purchased to achieve satisfactory management.

The Regulations define competent authorities as public bodies or statutory undertakers. Competent authorities are required to make an appropriate assessment of any plan or project they intend to permit or carry out, if the plan or project is likely to have a significant effect upon a European site. The permission may only be given if the plan or project is ascertained to have no adverse effect upon the integrity of the European site. If the competent authority wishes to permit a plan or project despite a negative assessment, imperative reasons of over-riding public interest must be demonstrated, and there should be no alternative to the scheme. The permissions process in that case would involve the Secretary of State. In practice, there will be very few cases where a plan or project is permitted despite a negative assessment. This means that a planning application has to be assessed by the Local Planning Authority, based on information provided by the applicant, and the assessment must either decide that it is likely to have no significant effect on a European site or ascertain that there is no adverse effect upon the integrity of the European site.

Government policy is for Ramsar sites (wetlands of global importance) to be treated as if they were European sites within the planning process.

Appropriate Assessment

Appropriate Assessment is required in certain instances under the Conservation of Habitats and Species Regulations 2017. Regulation 63 says that:

63.— (1) A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which-

(a) is likely to have a significant effect on a European site or a European offshore marine site

(either alone or in combination with other plans or projects), and

(b) is not directly connected with or necessary to the management of that site,

must make an appropriate assessment of the implications for that site in view of that site's conservation objectives.

(2) A person applying for any such consent, permission or other authorisation must provide such information as the competent authority may reasonably require for the purposes of the assessment or to enable it to determine whether an appropriate assessment is required.

(3) The competent authority must for the purposes of the assessment consult the appropriate nature conservation body and have regard to any representations made by that body within such reasonable time as the authority specifies.

(4) It must also, if it considers it appropriate, take the opinion of the general public, and if it does so, it must take such steps for that purpose as it considers appropriate.

(5) In the light of the conclusions of the assessment, and subject to regulation 64, the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site or the European offshore marine site (as the case may be).

(6) In considering whether a plan or project will adversely affect the integrity of the site, the authority must have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which they propose that the consent, permission or other authorisation should be given.

Regulation 70 provides that Regulations 63 and 64 apply in relation to the grant of planning permission. Regulation 70(3) specifically addresses outline applications, saying that:

"Where [Regulations 63 and 64] apply, outline planning permission must not be granted unless the competent authority is satisfied (whether by reason of the conditions and limitations to which the outline planning permission is to be made subject, or otherwise) that no development likely adversely to affect the integrity of a European site or a European offshore marine site could be carried out under the permission, whether before or after obtaining approval of any reserved matters."

The tests under the Habitats Regulations are very strict. To exclude a likely significant effect under Regulation 63(1)(a) or to exclude an adverse effect on integrity under Regulation 63(5) a competent authority must be certain beyond a reasonable scientific doubt as to the absence of such effects.

Although not provided for under the Habitats Regulations, Government policy under paragraph 176(b) of the NPPF is for Ramsar sites (wetlands of global importance) to be treated as if they were European sites within the planning process.

The competent authority is typically the local planning authority, or an Inspector / Secretary of State for appeals. The appropriate assessment contains the information the council requires for the purposes of its assessment under the Habitat Regulations.

The Habitats Regulations also are applicable to local authority land use plans and policies. If a policy or plan is likely to have a significant effect upon a European site, the permission may only be given if the policy or plan is ascertained to have no adverse effect upon the integrity of the European site. This approach gives rise to a hierarchy of plans each with related appropriate assessments. For example, the appropriate assessment of a Regional Spatial Strategy will affect policies within a Core Strategy, which will then need its own appropriate assessment, and so on.

European Protected Species

European Protected Species of animals are given protection from deliberate capture, injury, killing, disturbance or egg taking/capture. Their breeding sites or resting places are also protected from damage or destruction, which does not have to be deliberate. A number of species are listed as European Protected Species, with those most likely to be considered in planning applications being bats, dormouse, great crested newt and otter. Natural England may give a licence for actions that are otherwise illegal, subject to them being satisfied

on the three tests of no alternative, over-riding public interest, and maintenance of the species in favourable condition.

European Protected Species of plant are also listed and given protection. These species are generally very rare and unlikely to be present in proposed development sites.

Wildlife and Countryside Act 1981

The Wildlife and Countryside Act 1981 has been amended many times, including by the Countryside and Rights of Way Act 2000. It contains provisions for the notification and regulation of Sites of Special Scientific Interest, and for protected species.

The Regulations regulate the management of land within Sites of Special Scientific Interest, requiring land managers to have the consent of Natural England before carrying out management.

All public bodies are defined as 'S28G' bodies, which have a duty to further the nature conservation of Sites of Special Scientific Interest in the undertaking of their functions. In practice, this prevents planning applications being permitted if they would harm Sites of Special Scientific Interest, as it would be a breach of that duty.

The Act makes it an offence intentionally to kill, injure, or take any wild bird, take, damage or destroy the nest of any wild bird, while that nest is in use or being built, or take or destroy an egg of any wild bird. Special penalties are available for offences related to birds listed on Schedule 1, for which there are additional offences of disturbing these birds at their nests, or their dependent young.

The Act makes it an offence intentionally to kill, injure or take any wild animal listed on Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places. Some species have lesser protection under this Act, for example white-clawed crayfish, common frog and toads are only protected from sale, and reptile species, other than smooth snake and sand lizard, are protected from intentional killing or injury, but they are not protected from disturbance and their habitat is not protected. It is also an offence intentionally to pick, uproot or destroy any wild plant listed in Schedule 8.

National Planning Policy Framework

The National Planning Policy Framework (NPPF) dated July 2021 replaces previous Government Policy in relation to nature conservation and planning expressed in the previous version of the NPPF dated February 2019.

Chapter 15 paragraph 174(d) of the NPPF says that the planning system should contribute to and enhance the natural and local environment by minimising impacts on and providing net gains for biodiversity.

Paragraphs 175 and 176 relate to policy for designated sites of biodiversity or landscape importance. Local Plan policies should distinguish between the hierarchy of international, national and locally designated sites and allocate land with the least environmental or amenity value and maintain and enhance networks of habitats and green infrastructure. Further policy is within paragraph 179, where Local Planning Authorities should within their Local Plans aim to protect and enhance biodiversity by:

- Identifying, mapping and safeguarding 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
- Promoting 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.

When determining planning applications Local Planning Authorities should apply the following principles (paragraph 180):

- If significant harm to biodiversity resulting from a development cannot be avoided (through locating it on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused,

- 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;
- 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 reasons and a suitable compensation strategy exists; and
- development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

Paragraph 181 adds protection to candidate sites of European or International importance (Special Protection Areas, Special Areas of Conservation and Ramsar sites) and also to those sites identified or required as compensatory measures for adverse effects on habitats sites, potential SPA, possible SAC listed or proposed Ramsar sites.

Paragraph 182 clarifies that the presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a 'habitats' site, i.e. a European site, (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

Government circular 'Biodiversity and Geological Conservation – Statutory Obligations and their Impact Within the Planning System' referenced ODPM 06/2005 has not been replaced and remains valid. It sets out the legislation regarding designated and undesignated sites and protected species and describes how the planning system should take account of that legislation. It does however pre-date the NERC Act 2006 (see below), which includes a level of protection for a further list of habitats and species regardless of whether they are on designated sites or elsewhere.

Natural Environment and Rural Communities (NERC) Act 2006

This Act includes a list of habitats and species of principal importance in England. Local Authorities are required to consider the needs of these habitats and species when making decisions, such as on planning application.

Local Planning Authority's planning policy

The Local Planning Authority will have policies relating to biodiversity conservation.

Species Legislation

The following table provides an overview of legislation with regard to species.

Protected Species	Legislation			
	Wildlife & Countryside Act, 1981	The Conservation of Habitats and Species Regulations, 2017	Natural Environment & Rural Communities (NERC) Act, 2006	Protection of Badgers Act, 1992
Plants (certain 'rare' species)	✓	✓ ¹⁵	✓	
Invertebrates (certain 'rare' species)	✓	✓ ¹⁶	✓	
White-clawed crayfish	✓		✓	
Great crested newt, natterjack toad, pool frog	✓	✓	✓	
Other amphibians	✓ ¹⁷		✓	
Sand lizard, smooth snake	✓	✓ ¹⁸	✓	
Other reptiles	✓ ¹⁹		✓	
Breeding birds	✓	✓	✓	
Wintering birds (certain 'rare' species)	✓	✓	✓	
Bats	✓	✓	✓	
Dormouse	✓	✓	✓	
Water vole	✓		✓	
Otter	✓	✓	✓	
Badger				✓

¹⁵ Nine species present in the UK, with very specialised habitat requirements, are European Protected Species.

¹⁶ Fisher's estuarine moth, large blue butterfly and lesser whirlpool ram's-horn snail are European Protected Species.

¹⁷ The four other native amphibian species (smooth and palmate newts, common frog and common toad) are only protected against trade under this act.

¹⁸ Smooth snake and sand lizard are European Protected Species.

¹⁹ The four other native reptile species (common lizard, slow worm, grass snake and adder) are protected against intentional killing, injury and trade under this act.

Appendix 2

Assessment Methodology: Valuing Ecological Features and Impact Assessment

The three-stage assessment method for determining ecological value is based upon assessment matrices published in the Handbook of Biodiversity Methods²⁰. It has been updated to comply with recent changes to planning policy and legislation. The three-stage process allows the value of ecological sites, habitats and populations, and the magnitude of the impact, to be cross-tabulated to identify impact significance.

Valuing ecological sites, habitats and populations: scale and level of value

Scale	Level of value	Sites, habitats and populations
Greater than national	Very High	<p>Statutory sites designated under international conventions or related national legislation, in particular:</p> <ul style="list-style-type: none"> • Wetlands of International Importance (Ramsar sites), • Special Areas of Conservation, • Special Protection Areas.
National	High	<p>Statutory sites designated under national legislation, for example:</p> <ul style="list-style-type: none"> • Sites of Special Scientific Interest (England, Wales, Scotland), • National Nature Reserves (UK). <p>Significant viable areas of habitats, or populations or assemblages of species of principal importance for the conservation of biodiversity in England and Wales (Section 41 species and habitats)²¹ of such size and quality as might qualify for SSSI designation.</p> <p>Populations or assemblages of red-listed, rare or legally protected species, as might qualify for SSSI designation, for example:</p> <ul style="list-style-type: none"> • species of conservation concern, • Red Data Book (RDB) species, • birds of conservation concern (Red List species), • nationally rare and nationally scarce species, • legally protected species.
County	Medium	<p>Statutory sites of lower conservation value designated under national legislation, for example Local Nature Reserves (UK).</p> <p>Non-statutory sites designated under local legislation, for example:</p> <ul style="list-style-type: none"> • County Wildlife Sites, • Local Wildlife Sites, • Roadside Nature Reserves (protected road verges). <p>Viable areas of habitat or populations of species of principal importance for the conservation of biodiversity in England and Wales (Section 41 species and habitats)²² of such size and quality as might qualify for designation at the county level.</p> <p>Other non-designated sites which meet the criteria for designation at this level.</p>

²⁰ Hill, D., Fasham, M., Tucker, G., Shewry, M., Shaw, P. (eds.) (2005) *Handbook of Biodiversity Methods: Survey, Evaluation and Monitoring*, Cambridge University Press.

²¹ Listed under S41 of the Natural Environment and Rural Communities Act 2006 <http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx>.

²² Listed under S41 of the Natural Environment and Rural Communities Act 2006 <http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx>.

District/ Borough²³	Lower	<p>Sites meeting criteria for metropolitan designations.</p> <p>Undesignated sites or features not meeting criteria for county designation, but that are considered to enrich appreciably the habitat resource within the local district or borough, for example:</p> <ul style="list-style-type: none"> • ancient woodland, • diverse, ecological valuable and cohesive hedgerow networks, • significant clusters or groups of ponds, • veteran or ancient trees. <p>Viable areas of habitat or populations of species of principal importance for the conservation of biodiversity in England and Wales (Section 41 species and habitats)²⁴ not qualifying for designation at the county level.</p>
Parish	Lower	<p>Areas of habitat considered to enrich appreciably the ecological resource within the context of the local parish.</p> <p>Small areas of habitat or populations of species of principal importance for the conservation of biodiversity in England and Wales (Section 41 species and habitats)²⁵.</p>
Site only	Negligible	Ecological feature or resource not meeting any of the above criteria.

Note: there is much overlap in designations and lists of important species, and many sites, habitats and species appear on several. Where a site, habitat or species has multiple designations or levels of protection, normally the highest level would be the level at which impacts are assessed.

²³ Including metropolitan boroughs.

²⁴ Listed under S41 of the Natural Environment and Rural Communities Act 2006 <http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx>.

²⁵ Listed under S41 of the Natural Environment and Rural Communities Act 2006 <http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx>. Listed under S41 of the Natural Environment and Rural Communities Act 2006 <http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx>.

Definitions of impact magnitude

Magnitude (negative or positive)	Definition/trigger
Severe	Loss or severe degradation affecting over 75% of a site feature, habitat or population. Adverse change to, or reduced condition of, over 90% of a site feature, habitat or population, for example through disturbance or trampling.
Major	Loss or severe degradation affecting over 25% of a site feature, habitat or population. Adverse change to, or reduced condition of, over 50% of a site feature, habitat or population, for example through disturbance or trampling. For benefits, an impact equivalent in nature conservation terms to a gain of over 50% in a site feature, habitat or population.
Moderate	Loss or severe degradation affecting over 5% of a site feature, habitat or population. Adverse change to, or reduced condition of, over 10% of a site feature, habitat or population, for example through disturbance or trampling. For benefits, an impact equivalent in nature conservation terms to a gain of 10-50% in a site feature, habitat or population
Minor	Loss or severe degradation affecting up to 5% of a site feature, habitat or population. Adverse change to, or reduced condition of, 1-10% of a site feature, habitat or population, for example through disturbance or trampling. For benefits, an impact equivalent in nature conservation terms to a gain of up to 10% in a site feature, habitat or population.
Insignificant	No loss of or severe degradation to a site feature, habitat or population. Adverse change to, or reduced condition of, less than 1% of a site feature, habitat or population. No benefit to a site feature, habitat or population.

Impact significance

Value of site, habitat or population	Magnitude of impact							
	<i>Severe Negative</i>	<i>Major Negative</i>	<i>Moderate Negative</i>	<i>Minor Negative</i>	<i>Insignificant</i>	<i>Minor Positive</i>	<i>Medium Positive</i>	<i>Major Positive</i>
<i>Very High</i>	Severe Adverse	Severe Adverse	Major Adverse	Major Adverse	Neutral*	Major Beneficial	Major Beneficial	Major Beneficial
<i>National (High)</i>	Severe Adverse	Major Adverse	Major Adverse	Moderate Adverse	Neutral*	Moderate Beneficial	Major Beneficial	Major Beneficial
<i>County/Metropolitan (Medium)</i>	Major Adverse	Major Adverse	Moderate Adverse	Moderate Adverse	Neutral	Minor Beneficial	Moderate Beneficial	Major Beneficial
<i>District/Borough (Lower)</i>	Major Adverse	Moderate Adverse	Moderate Adverse	Minor Adverse	Neutral	Minor Beneficial	Moderate Beneficial	Moderate Beneficial
<i>Parish (Lower)</i>	Moderate Adverse	Moderate Adverse	Minor Adverse	Minor Adverse	Neutral	Minor Beneficial	Minor Beneficial	Moderate Beneficial
<i>Minimal/negligible</i>	Neutral	Neutral	Neutral	Neutral	Neutral	Minor Beneficial	Minor Beneficial	Moderate Beneficial

Where the impact significance falls below Minor Adverse, the term 'Neutral' is used.

*In some circumstances, some 'insignificant' impacts might fail legislative or policy tests and the impact would be greater than Neutral.

Appendix 3

Appendix 4



THIS SUMMARY PAGE MAY BE PUBLISHED
THE FULL REPORT AND MAPS MAY NOT BE PUBLISHED IN THE PUBLIC DOMAIN

Ecological Data Search 24102dr - Summary Page

A 1000m ecological data search was carried out for site 23 Crescent East, Hadley Wood on behalf of The Landscape Partnership on 22 May 2023.

The following datasets were consulted for this report:

- Statutory sites ✓
- Non-statutory sites ✓
- Non-statutory sites (Proposed) ✓
- Protected species ✓
- London invasive species ✓
- Notable Thames Structures ✓
- Habitats ✓
- Open space ✓

Results

Statutory sites	No statutory sites and 1 LNR
Non-statutory sites	
SINCs	3 SINCs
Proposed SINCs	None present within search area
Areas of Deficiency	Present within search area
Geological sites	1 site
Species	
Protected and notable species	374 species records
London invasive species	27 species records
Notable Thames Structures	Not present within search area
Habitats	
BAP habitat suitability	Present within search area
Open space	Present within search area

The report is compiled using data held by GiGL at the time of the request. Note that GiGL does not currently hold comprehensive species data for all areas. Even where data is held, a lack of records for a species in a defined geographical area does not necessarily mean that the species does not occur there.

Permission

This data search report is valid until 19/05/2024 for the site named above.

Prepared by
22 May 2023