



Preliminary Ecological Appraisal

**Land at Holmewood School, Muswell Hill,
London, N10 3TD**

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LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date.

This report provides a snap shot of the species that were present at the time of the survey only and does not consider seasonal variation. Furthermore, where access is limited or the site supports habitats which are densely vegetated only dominant species may be recorded.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

Background

- 1.1 The Ecology Partnership was commissioned by LXA to undertake a preliminary ecological appraisal (PEA) of land at Holmewood School, Muswell hill, London, N10 3TD. This is in support of a planning application for the site.
- 1.2 The key objectives of a PEA (CIEEM 2017) are to:
- Identify the likely ecological constraints associated with a project;
 - Identify any mitigation measures likely to be required, following the 'Mitigation Hierarchy' (CIEEM 2016; BSI 2013, Clause 5.2);
 - Identify any additional surveys that may be required to inform an Ecological Impact Assessment (EcIA); and
 - Identify the opportunities offered by a project to deliver ecological enhancement.
- 1.3 This report comprises the:
- Legislative and planning context (Section 1);
 - Assessment methodologies (Section 2);
 - Results (Section 3);
 - Implications for development (Section 4);
 - An impact assessment (Section 5); and
 - Conclusions (Section 6).

Site Context and Status

- 1.4 The site comprises of a fenced off area of woodland within the north-eastern grounds of Holmewood school. The site is located to the south-west of Muswell Hill, London (TQ 29235 89513). The site is approximately 0.31ha in size and is bound by high density residential dwellings to the north, south and west, and allotments located to the east. The wider surrounding area comprises high density residential dwellings, parcels of woodland and areas of grassland.
- 1.5 The site is shown in Figure 1 below.



Figure 1: Redline Boundary of the site within the local context

Description of the Proposed Development

- 1.6 Proposals for the site are currently for the erection of two cabins within the existing clearings of the woodland on site, with no loss of mature trees proposed (Figure 2).

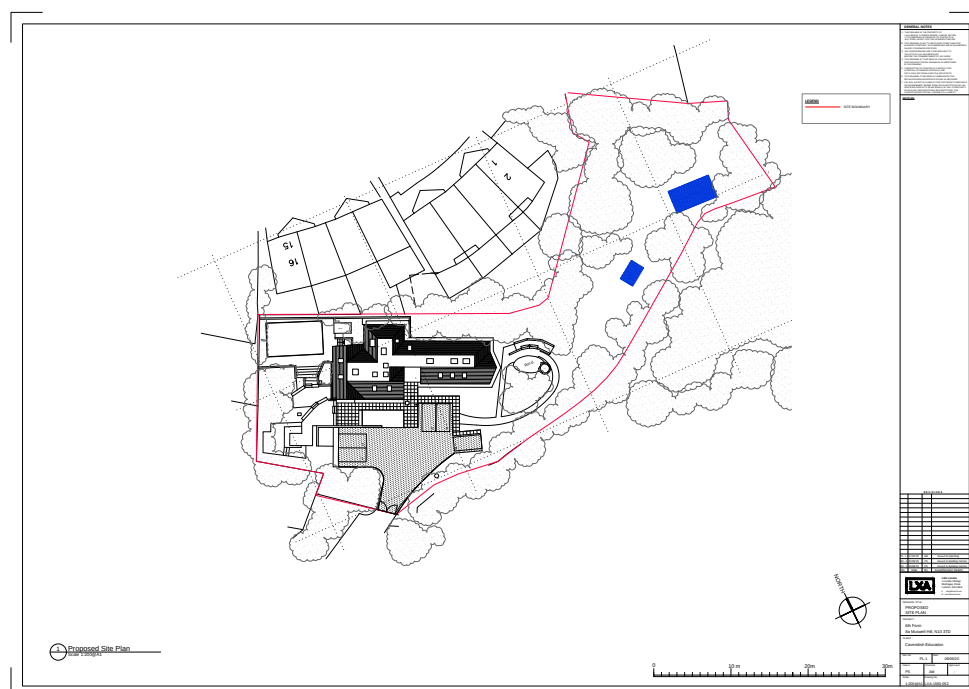


Figure 2: Proposed Site Plan

Planning Policies

- 1.7 The site was surveyed to assess its ecological value and to ensure the proposals were compliant with relevant planning policy and legislation. Policy guidance is provided by the National Planning Policy Framework (NPPF 2021) as well as policies from the London Borough of Haringey. The Haringey Local Plan was adopted in March 2013 and contains policies relating to ecology which are relevant to the site. These policies include:

- **Strategic Policy 13: Open Space and Biodiversity**

- 1.8 The Environment Bill received Royal Assent on 9th November 2021 and is now enacted as the Environment Act 2021. Part 6 (Nature and Biodiversity) and Schedule 14 of the Environment Act 2021 inset a new section 90A and Schedule 7A into the Town and Country Planning Act 1990 (TCPA), which contain the provisions requiring mandatory biodiversity net gain for development granted planning permission pursuant to the TCPA. These provisions are not yet in force, but, once they are brought into effect through implementing legislation, will require developments to provide a biodiversity value post-development that exceeds the predevelopment biodiversity value of the onsite habitats by at least 10%. These provisions are not expected to come into force until November 2023 for new planning applications.

- 1.9 The site has therefore been surveyed to assess its ecological value and to ensure compliance with national and local plan policies and other relevant nature conservation legislation including; Wildlife and Countryside Act 1981, Natural Environment and Rural Communities Act 2006, and the Conservation of Habitats and Species (EU Exit) Regulations 2019.
- 1.10 The site was surveyed to assess its ecological value and to ensure compliance with national and local plan policies. The report has been produced with reference to current guidelines for preliminary ecological appraisal (CIEEM 2017) and in accordance with BS 42020:2013 Biodiversity – Code of Practice for Planning and Development.

2.0 Methodology

Desktop Study

- 2.1 A desktop study search was completed using an internet-based mapping service (www.magic.gov.uk) for statutory designated sites and an internet-based aerial mapping service (maps.google.co.uk) was used to understand the habitats present in and around the survey area and habitat linkages and features (ponds, woodlands, etc.) within the wider landscape. A 1km data search was obtained from Greenspace Information for Greater London CIC (GiGL) for records of protected and notable species and non-statutory site designations.

Preliminary Ecological Appraisal

- 2.2 An extended preliminary ecological appraisal was undertaken on 3rd July 2023 by principal ecologist Matt Pendry BSc (Hons). The surveyor identified the habitats present, following the standard 'UK Hab' auditing method. The site was surveyed on foot and the existing habitats and land uses were recorded on an appropriately scaled map (JNCC 2010).

Protected Species Assessments

- 2.3 Any evidence of protected species was recorded. Standard methods of search and measures of presence or likely presence based on habitat suitability were used for bats in trees and buildings (Collins 2016), breeding birds¹, dormouse (Bright *et al.* 2006),

¹<https://www.bto.org/our-science/projects/birdatlas/methods/breeding-evidence>

great crested newt (ARG 2010), reptiles (Froglife 2015), badgers (Creswell *et al.* 1990) and water vole (Strachan *et al.* 2011).

Limitations

- 2.4 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no single investigation could ensure the complete characterisation and prediction of the natural environment. The site was visited over the period of one site visit, as such seasonal variations cannot be observed and potentially only a selection of all species that potentially occur within the site have been recorded. Therefore, the survey provides a general assessment of potential nature conservation value of the site and does not include a definitive plant species list.
- 2.5 The protected species assessment provides a preliminary view of the likelihood of protected species occurring on-site, based on the suitability of the habitat and any direct evidence on site. It should not be taken as providing a full and definitive survey of any protected species group. The assessment is only valid for the time when the survey was carried out. Additional surveys may be recommended if, on the basis of this assessment it is considered reasonably likely that protected species may be present.

3.0 Results

Desktop Study

- 3.1 There are two international designations located within 10km of the site boundary. This is listed below and shown in Figure 3. Lee Valley, Ramsar & Special Protection Area (SPA) *c.* 5.1km east. Epping Forest Special Area of Conservation (SAC) *c.* 9.6km east.

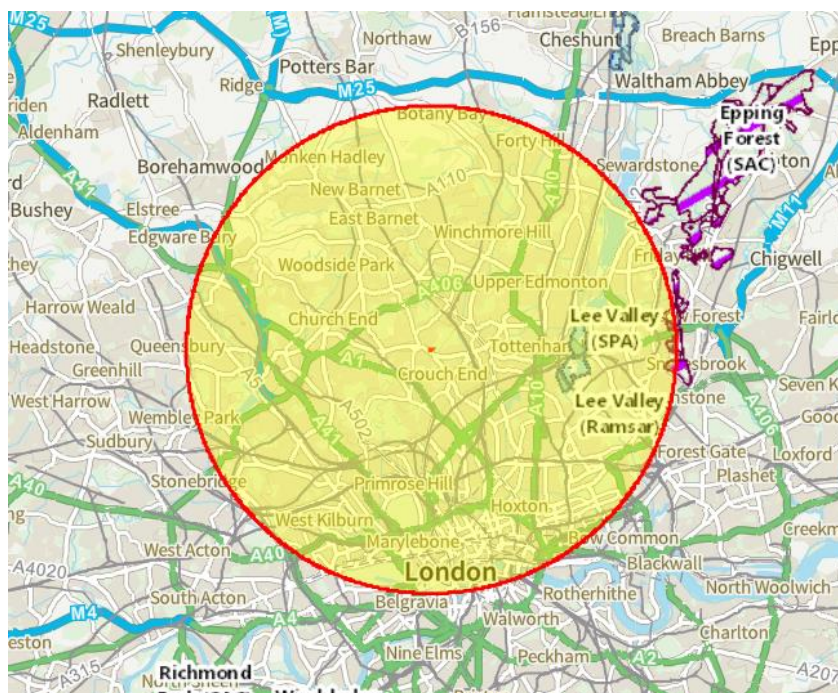


Figure 3: Internationally designated sites within 10km of the site boundary

- 3.2 There are three statutory designated sites located within 2km or adjacent to the site (Figure 4). Alexandra Palace & Park Local Nature Reserve (LNR) (c. 90m east), Queen's Wood LNR (c. 720m south-west), and Coldfall Wood LNR (c. 1.4km north-west).

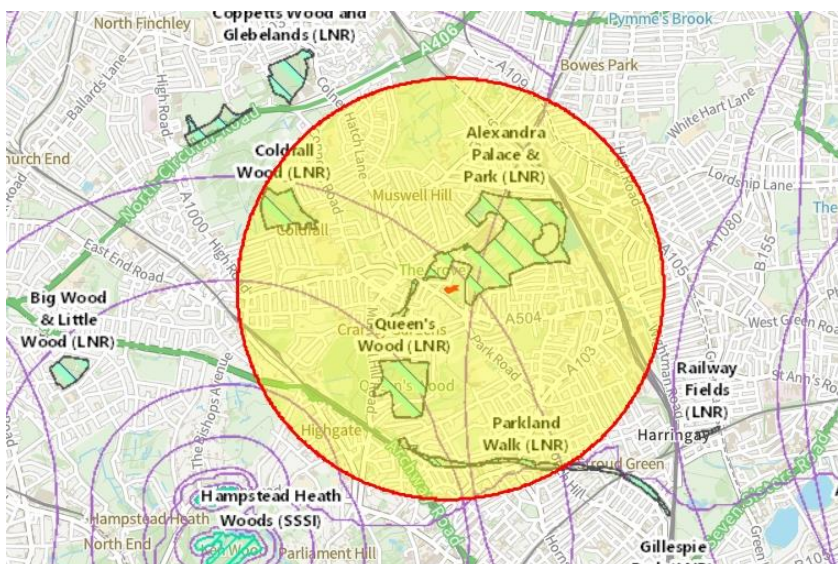


Figure 4: Statutory designated sites located within 2km of the site.

- 3.3 The site falls within a non-statutory designation: Grove Lodge Site of Importance for Nature Conservation (SINC), which extends to the south of the site boundary. This is designated for its mature trees within the woodland and grassland areas containing grey sedge.

3.4 There are a further seven-statutory SINC designations located within 1km of the site boundary:

- Alexandra Park Allotments SINC, adjacent to north-eastern site boundary, designated for its allotment habitat, ancient hedgerows and mature trees.
- Alexandra Park SINC c. 90m east, designated for its diversity of habitats, including woodland, grassland and veteran trees.
- Parkland Walk, Queen's Wood and Highgate Wood SINC, c. 330m west, designated for its extensive ancient woodland.
- Crouch End Playing Fields Complex SINC c. 570m south, designated for its veteran trees.
- Priory Park SINC, c. 700m south-east, designated for its extensive green open space.
- North Bank, Pages Lane SINC c. 740m north-west, designated for its old trees including a 300-year-old horse chestnut tree.
- Shepherds Hill Allotments SINC, c. 950m south, designated for its allotment habitat.

3.5 A number of priority habitats are present within 1km of site (Figure 5), including:

- Deciduous Woodland (on site);
- Ancient Semi-Natural Woodland (c. 850m south-west); and
- Traditional Orchards (c. 230m north).



Figure 5: Priority habitats within 2km of site boundary including: deciduous woodland (dull green), ancient semi-natural woodland (vertical brown hatches), and traditional orchards (lime green).

3.6 OS mapping found one pond within 250m of the site (Figure 6).

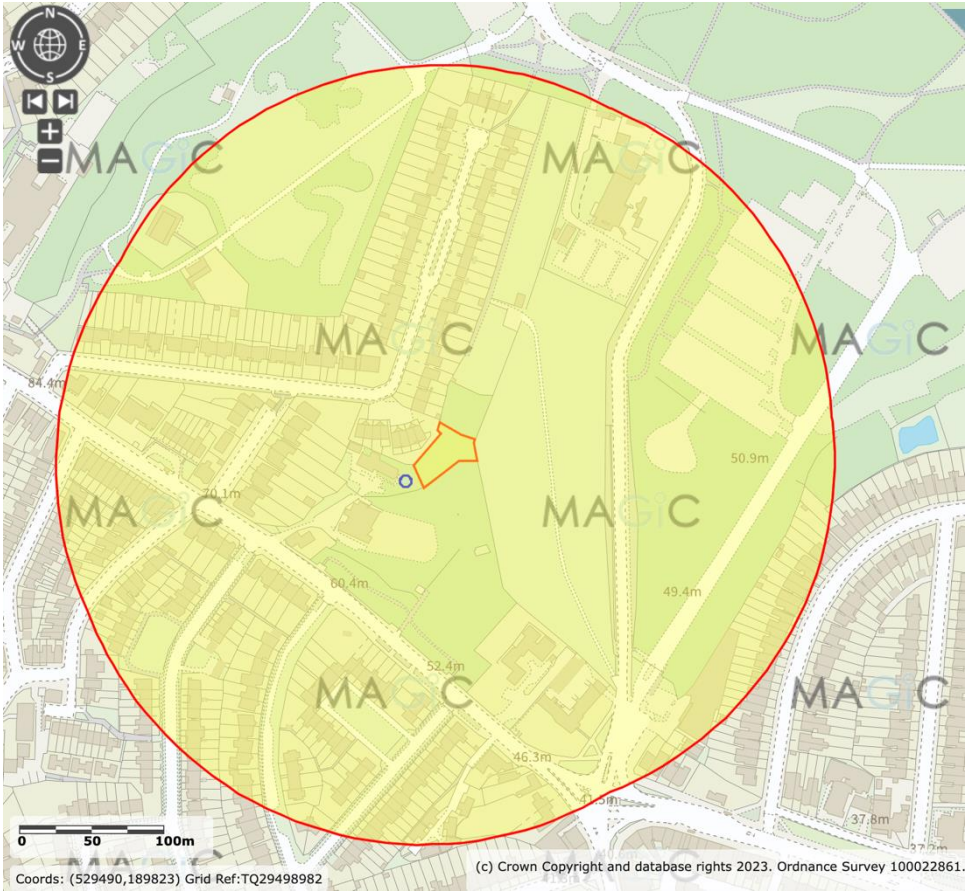


Figure 5: Ponds within 250m of the site.

3.7 The desktop study revealed that there were two European Protected Species (EPS) Licenses and one class licence return within a 2km radius of the red line boundary (Table 1).

Table 1: European Protected Species Licences within 2km radius

Species	Distance/Orientation from site	License Type	License Duration/Date	Reference Number
Common Pipistrelle	1.8km north-east	Destruction of a resting place	03/09/2018 – 31/05/2021	2018-36809-EPS-MIT
Common Pipistrelle	1.8km north-east	Destruction of a resting place	07/03/2019 – 31/03/2021	2018-36809-EPS-MIT-1
Great Crested Newt	1.9km north	Class License Return	05/04/2016	N/a



Table 2: Species records within 1km of the site boundary in the past 10 years

Species	Status	Distance from site	Date of record
Hedgehog <i>Erinaceus europaeus</i>	NERC 41	62m north-east	23/05/2017
Whiskered / Brandt's bat <i>Myotis mystacinus/brantii</i>	Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5	542m north-east	26/05/2016
Daubenton's Bat <i>Myotis daubentonii</i>	Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5	277m north-west	05/11/2018
Leisler's Bat <i>Nyctalus leisleri</i>	Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5	277m north-west	19/09/2018
Noctule Bat <i>Nyctalus noctula</i>	Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and	277m north-west	12/09/2018

	Countryside Act (1981 as amended) Schedule 5		
Common Pipistrelle <i>Pipistrellus pipistrellus</i>	Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5	367m east	05/11/2018
Soprano Pipistrelle <i>Pipistrellus pygmaeus</i>	Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5	277m north-west	13/09/2018
Nathusius Pipistrelle <i>Pipistrellus nathusii</i>	Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5	277m north-west	16/09/2018
Long-Eared Bat <i>Plecotus sp.</i>	Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5	277m north-west	17/09/2018
House Sparrow <i>Passer domesticus</i>	Wildlife and Countryside Act (1981 as amended) Schedule 1; NERC Act (2006) Section 41; BoCC Red List	Within 1km of site	21/06/2013
Short eared owl <i>Asio flammeus</i>	Birds Directive Annex 1	976 m north-east	31/10/2015
Lesser spotted woodpecker <i>Dryobates minor</i>	BoCC Red list	976 m north-east	09/12/2017
Wood warbler <i>Phylloscopus sibilatrix</i>	BoCC Red list, NERC S41	976 m north-east	23/09/2015
Song Thrush <i>Turdus philomelos</i>	BoCC Amber List	976 m north-east	11/11/2019
Mistle Thrush <i>Turdus viscivorus</i>	BoCC Red List	976 m north-east	11/11/2019

Habitat Survey

- 3.9 The site is comprised entirely of *lowland mixed deciduous woodland* priority habitat. The canopy comprised abundant ash, and frequent Norway maple, and sycamore with rare occurrences of pedunculate oak, horse chestnut, hornbeam, and crack willow. The canopy was not continuous with openings largely along the centre of the site. The understorey was dense, comprising occasional holly, cherry laurel, spotted laurel, wild privet, hawthorn, and elder. The ground layer was dominated by bramble,

abundant ivy, frequent nettles, and occasional wood dock, green alkanet, wood avens, and cleavers.

Protected Species

Bats

- 3.10 The site has good connectivity to suitable bat habitat within the surrounding area and the habitat within the site provides suitable foraging habitat for bats. Mature trees potentially suitable to support roosting bats were also present within the site. As such, the site is considered to have **moderate** potential for commuting and foraging bats, and roosting bats.

Dormice

- 3.11 The site contains suitable habitat for dormice, however, due to the sites location within north London, there are no links to the outer countryside where dormice are typically found. Dormice live in low density and as such need a large area of connective suitable habitat with a variety of food sources, with sizeable woodland blocks to support source populations. With the location of the site in an urban setting, and the extent of fractured habitat present in the local area, is not considered sufficient to support a population. The closest EPSM licence is located 15km to the north-west. As such the site is considered to have **negligible** potential to support dormouse.

Great crested newt

- 3.12 No ponds were present on site; however, a single pond was identified within the school grounds 5m from the site boundary. The pond was man made in nature and is likely to have been installed as an educational feature at the school site.
- 3.13 A Habitat Suitability Index (HSI) survey was carried out to assess its suitability for great crested newts. As part of the HSI, each pond is measured against ten different suitability indices (SI), and assigned a score from 0.01 to 1. These indices are then multiplied together, and the tenth root is calculated using the equation below:

$$HSI = (SI_1 \times SI_2 \times SI_3 \times SI_4 \times SI_5 \times SI_6 \times SI_7 \times SI_8 \times SI_9 \times SI_{10})^{1/10}$$

- 3.14 The calculated score should be between 0 and 1 and will fall within one of several bands, which correspond to a given category for the pond. Table 3 below shows the HSI scores and their corresponding pond suitability category.

Table 3: HSI scores and pond suitability

HSI	Pond Suitability
< 0.5	Poor
0.5 - 0.59	Below Average
0.6 – 0.69	Average
0.7 – 0.79	Good
> 0.8	Excellent

3.15 The suitability index scores for ponds 1, 2, 3 and 4 can be found in table 4 below.

Table 4: HSI scores for ponds 1, 2, 3 and 4

Suitability Indices No.	Feature	Pond 1 Score
1.	Location	1
2.	Area	0.05
3.	Permanence	1
4.	Water quality	0.67
5.	Shading	1
6.	Presence of waterfowl	1
7.	Presence of fish	1
8.	Pond density	0.1
9.	Suitable newt habitat within 250m	0.67
10.	Macrophyte content	0.5
10 th root		0.507
Pond Suitability		Below average

3.16 The pond was classified as having below average suitability for great crested newts. Furthermore, it is the only pond in the local area, and covers an area of less than 5m², which is smaller than pond a breeding population of GCN are typically found in. A careful visual inspection identified smooth newts within the pond but no GCN. The record search returned no records for GCN in the local area within and around Alexandra Park, and the nearest class licence return for GCN is over 1.8km to the north of the site on the opposite side of a dense urban area. With no potential connectivity to a source breeding population, it is considered the potential for GCN on site is **negligible**.

Badgers

- 3.17 No evidence of badgers, including setts, latrines, or holes, was found within the site boundary at the time of the survey, and no records were provided by the data search. As such it is considered to site has **negligible** potential to support badger.

Reptiles

- 3.18 Due to the dense understorey and brambles the woodland floor was considered too shaded to be of value to reptiles. However, due to the proximity of the extensive suitable habitat within the allotments to the east of the site, the presence of slow worms cannot be ruled out. Overall, the site was considered to have **low** potential to support reptiles.

Breeding birds

- 3.19 The woodland on site provide suitable nesting opportunities for breeding birds, and the site is considered to have **high** potential.

Other Species

- 3.20 Due to a lack of suitable habitat, the site was not considered suitable for other protected species, such as water voles and otters.
- 3.21 Due to the suitable woodland habitat, the site is considered to have potential to support hedgehog.

4.0 Discussion

- 4.1 The following paragraphs consider the effects of the development on designated sites, priority habitats, and protected and priority species. Where the desk study and habitat survey provide sufficient evidence for an assessment of effects on any of these groups to be taken through planning, these are detailed below, the need for additional surveys and when and how these should be completed are summarised, if required.

Effects on designated sites

- 4.2 Due to the nature of the proposals and distance from any statutory designations, it is considered that the proposals will have no residual effect on national or internal statutory designations.
- 4.3 The site forms part of a non-statutory designation: Grave Lodge, Muswell Hill SINC. This site is designated at the borough level owing to its mature trees and grassland which contains grey sedge, which is uncommon in London. The site itself only accounts for less than 7% of the total SINC area and contains no grassland, however, mature trees are present within the woodland on site. In order to maintain the functional integrity of the SINC, it is recommended that no mature trees are removed as a result of the works and are adequately protected in line with recommendations by an arboriculturist. Currently the site is already subject to a level of disturbance from occasional school activities and so the proposals will not result in any significant increase in disturbance. On this basis, the development is expected to have no significant residual effect on the SINC.
- 4.4 There are a further seven non-statutory sites located within 1km of the site boundary, the closest is Alexandra Park Allotments SINC adjacent to the eastern site boundary, and designated for its allotment habitat. Due to the nature of the works and the distance of most of these sites from the site boundary, it is considered that no direct negative impacts will occur as a result of any developments on site. Therefore, it is considered unlikely that the proposed development on site will negatively impact any non-statutory sites within the local area.

Effects on Priority Habitats

- 4.5 The entire site is made up of lowland mixed deciduous woodland priority habitat. To avoid any detrimental impact to this habitat, it is recommended that no mature trees or native semi-mature trees are felled to facilitate the works. In order to compensate for minor loss of parts of the existing understorey (largely bramble scrub). It is recommended the remaining woodland be enhanced through removal of non-native shrub species (cherry laurel, spotted laurel and Japanese spindle), controlling bramble and planting native bulbs and shrub species.

- 4.6 It is recommended that any works undertaken within the Root Protection Areas (RPAs) of any retained trees follow an arboricultural consultants advice, to ensure the protection of these trees.

Protected Species

Bats

Roosting potential

- 4.7 Mature trees with potential to support roosting bats are present around the edges of the site. As long as all mature trees are maintained and protected, and are not illuminated by any artificial lighting, then no impact to roosting bats is anticipated and and no further survey work is required.

Foraging and commuting potential

- 4.8 Any proposed development must consider ecological networks and green infrastructure, in line with national and local policies. The site contained some suitable habitat for commuting and foraging bats and has a good connectivity to similar habitat in the wider surrounding area. As such the mature trees should be retained, and remain unlit to preserve their ecological functionality for foraging and commuting bats.

Reptiles

- 4.9 The log piles on site were considered suitable to support hibernating reptile species but are less likely to support reptiles at other times of the year due to the lack of light and basking opportunities on the woodland floor.
- 4.10 Since the works proposed for the site are not going to majorly impact the surrounding environment, it is considered that reptile surveys are not necessary, instead the development areas should be subject to a sensitive clearance, as detailed later in this report.

Nesting Birds

- 4.11 The trees and shrubs on site have the potential to support nesting birds. If the removal of any of these features is to be carried out, this should be done outside of the breeding bird season (March-September inclusive) or immediately after a nesting bird check by a suitably qualified ecologist. If active nests are identified, works in the vicinity of the nest must cease until the birds have fledged the nest.

Other Species

- 4.12 No potential for any other protected species, such as GCN, dormouse, badgers, otters or water voles was identified within the site.
- 4.13 The site has potential to support hedgehog. Whilst receiving no specific legal protection, they are protected from certain forms of harm under the wild mammals (Protection) Act 1996. As such, it is recommended that a sensitive clearance strategy be followed as detailed below.

Sensitive clearance mitigation strategy

- 4.14 Although the proposed works are small scale and low impact in nature, there is still potential for individual harm to protected species without careful planning. As such, it is recommended that the following mitigation measures are followed during the works:
- Any scrub clearance associated with the works will require a two-stage cut. The initial cut to 250mm should take place between September and the end of February. This is because during this period birds are not nesting and hedgehog and reptiles are hibernating at ground level and are unlikely to be present within the main foliage of the scrub.
 - If the aforementioned scrub clearance cannot take place prior to March, a suitably qualified ecologist should conduct a check for nesting birds as previously described.
 - Clearance of remaining scrub to ground level should only take place between April and the end of October when reptiles and hedgehog are no longer hibernating. Immediately prior to this clearance, the area should be checked by an ecologist for presence of hedgehog, and reptiles, including potential refugia (log piles). If any reptiles or hedgehog are found, they will be safely moved away from the works area to a suitable location.
- 4.15 If the above mitigation strategy is followed, it is considered that reasonable avoidance measures will have been taken to ensure no harm or disturbance to reptiles, birds, and hedgehog as a result of the works.

Ecological Enhancements

- 4.16 General recommendations are given here to improve the quality of the site for protected species and contribute to net gain to biodiversity post-development and to ensure that the proposals comply with local planning policy. It is important to use native species of local provenance in landscaping schemes to enhance the ecological value of a development. These should be considered at the first design stages to ensure biodiversity is adequately considered within proposals.
- 4.17 Removing non-native shrubs and clearing back bramble where dominant and planting a more diverse assortment of native shrub species as well as bulbs and native woodland flora, would increase the diversity of habitat on site and provide an important food resources for wildlife.
- 4.18 It is recommended that a stag beetle loggery be established on site (Figure 7). This should be made up of upward-facing logs partially buried up to 50cm below the ground, as indicated in Figure 7. This will provide a suitable breeding site for stag beetle, whose larvae will feed on the buried dead wood.



Figure 7: Examples of stag beetle loggery

- 4.19 It is recommended that two bird and two bat boxes are affixed to mature trees on the edge of the site at a height of 3-5m. Woodcrete or stonecrete models are recommended as they are longer lasting and have better thermal-regulatory properties than wooden boxes. Examples of suitable models are shown in Figure 8 below.



Figure 8: 2F Schwegler Bat box, & Vivara Pro Seville Woodstone Nest box,

5.0 Impact Assessment

5.1 This section of the report forms an EcIA (Ecological Impact Assessment) and is designed to quantify and evaluate the potential impacts of the development on habitats and species present on site or within the local area.

Methodology

5.2 The approach to this assessment accords with guidance presented within the CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM 2018). In essence, an EcIA assesses the activities associated with a proposed scheme that are likely to generate changes within identified zone of influences, on identified ecological features and receptors. The proposals are subsequently reviewed and mitigation and compensation measures are outlined which help to reduce negative impacts.

5.3 The zone of influence for the development is defined as:

- The project red line, for effects on habitats and species;
- Adjacent habitat, considered by species, for mobile species with territories or foraging ranges that may overlap the site.
- Up to 1km for national statutory and non-statutory designations; and,
- Up to 10km for international statutory designations.

5.4 The types of features considered in the assessment of effects, to meet legislative and policy requirements, are:

- Designated sites (European, national and local);
- Protected species;
- Habitats and species of principal importance (Section 41 list);
- Hedgerows and woodland, where not of principal importance; and
- Habitats, where not of principal importance, that may function as wildlife corridors or stepping stones.

Baseline Ecological Conditions

5.5 The site falls within the zone of influence for the following important ecological features:

- Priority Habitat – Lowland deciduous woodland,
- Grove Lodge SINC
- Alexandra Park Allotments SINC

5.6 In addition, the site is considered to have **potential** to support the following priority species:

- Bats – woodland
- Reptiles – within woodland ground layer.
- Nesting birds – within trees, and scrub on site.
- Hedgehog – within woodland ground layer.

Impact Assessment and Mitigation

Table 5: Assessment of effects from the proposal after mitigation and compensation

Feature	Scale of Importance	Mitigation/Compensation Required	Residual Effect
Grove Lodge SINC	Borough	Maintain and protect mature trees within the site and enhance woodland to compensate for minor loss of understory/scrub. Change in long-term disturbance considered negligible.	Not Significant
Other SINC's	Local to Metropolitan	No mitigation required, owing to nature of works	Not Significant
Lowland mixed deciduous woodland Priority Habitat	Local	Ensure RPA's of mature trees are sufficiently protected in accordance with the recommendations of an arboriculturist. Enhance	Not Significant

		woodland to compensate for minor loss of understory/scrub	
Bats	Up to local	Retention of mature trees. No additional artificial lighting	Not Significant
Reptiles	Up to site	Sensitive minor clearance of ground level habitat at the appropriate time of year.	Not Significant
Nesting Birds	Up to site	Mitigating direct harm to nests by removal of any shrubs/small trees outside of nesting bird season or after a check by a suitably qualified ecologist.	Not Significant
Hedgehog	Up to site	Sensitive minor clearance of ground level habitat at the appropriate time of year.	Not Significant

6.0 Conclusions

- 6.1 The site comprises a small area of lowland mixed deciduous woodland within the school grounds.
- 6.2 There are three international statutory designations within 10km and three national statutory designations within 2km of the site boundary, the closest being Alexandra Palace and Park LNR 90m to the east.
- 6.3 The site is located within a non-statutory designation: Grove Lodge SINC, and a further seven SINC are located within 1km of the site boundary. In order to avoid impacting the ecological function of the SINC, it is recommended that all mature trees are retained and protected and any minor loss of understorey/scrub is compensated through enhancement of remaining woodland. Due to the nature of proposals no impacts are anticipated on other non-statutory sites.
- 6.4 The lowland mixed deciduous woodland habitat on site is considered a priority habitat. As such it is recommended that all mature trees are retained and protected and any minor loss of understorey/scrub is compensated through enhancement of remaining woodland through removal of some areas of non-native shrubs and replacement with native species.
- 6.5 The site contains mature trees that may be suitable to support roosting bats, and the woodland itself provides suitable commuting/foraging habitat. As such, it is

recommended that all mature trees are retained and protected and no external artificial lighting be used within the woodland.

- 6.6 Log and brash piles on the woodland floor on site were considered to have some potential to support hibernating reptiles & hedgehog. Due to the low-impact nature of the works, further surveys for these species are not considered necessary. Instead, they will be assumed present in low number and all works will be subject to sensitive clearance strategy to avoid any potential for harm or disturbance to these species.
- 6.7 The trees and shrubs on site have the potential to be used by birds as nesting habitat during the breeding season. The UK breeding season for most bird species takes place between March and September inclusive. Ideally, work affecting these areas should be avoided during this period. If unavoidable, it is recommended that any works affecting trees and scrub on site should be carried out under ecological watching brief.
- 6.8 The site is not considered to have potential to support other protected species such as dormouse, GCN, badgers, otters or water voles.
- 6.9 Recommendations for enhancements include, creating a stag beetle loggery and establishing bird and bat boxes on retained boundary trees.

7.0 References

ARG (2010) *UK Advice Note 5: Great crested newt habitat suitability index*. Amphibian and Reptile Groups of the United Kingdom.

Bright, P., Morris, P. & Mitchell-Jones, T. (2006) *The Dormouse Conservation Handbook*. 2nd edition. English Nature.

CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal, 2nd Edition*. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.

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

Creswell, P., Harris, S. & Jeffries, D.J. (1990) *The history, distribution status and habitat requirements of the badger in Britain*. Nature Conservancy Council, Peterborough.

English Nature (2004) *Reptiles: guidelines for developers*. English Nature, Peterborough.

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

Institution of Lighting Professionals (ILP – 2018) *Guidance Note 08/18 – Bats and artificial lighting in the UK*. ILP, Rugby.

Langton, T.E.S., Beckett, C.L. & Foster, J.P. (2001) *Great Crested Newt Handbook*. Froglife, Halesworth.

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

Natural England (2011) *Badgers and Development: A guide to best practice and licensing*. Natural England, Bristol.

Neal, E. & Cheeseman, C. (1996) *Badgers*. T & A D Poyser Ltd. London.

Stone, E.L., Jones, G., Harris, S. (2009) Street lighting disturbs commuting bats. *Current Biology*, **19**: 1123-1127.

Wilson, G.J., Harris, S. & McLaren, G. (1997) *Changes in British badger population, 1988-1997*. People's Trust for Endangered Species, London.

Internet resources:

Google Maps: www.google.co.uk/maps

Magic Interactive Map: www.magic.gov.uk

Appendix 1: Photos

Photograph 1: South-western end of the woodland	
Photograph 2: Centre of the woodland.	
Photograph 3: North-east of the woodland.	

Photograph 4: Bramble scrub in a clearing in the northern-most corner of the site.	
Photograph 5: Existing storage shed and outdoor education areas in north-east of woods.	
Photograph 6: Formal Pond within the school grounds outside application area.	

Appendix 2: Habitat Map



Appendix 3: Species List

Common name	Latin name	DAFOR score
Woodland		
Bramble	<i>Rubus fruticosus</i>	D
Ash	<i>Fraxinus excelsior</i>	A
Common Ivy	<i>Hedera helix</i>	A
Norway Maple	<i>Acer platanoides</i>	F
Sycamore	<i>Acer pseudoplatanus</i>	F
Common Nettle	<i>Urtica dioica</i>	F
Holly	<i>Ilex aquifolium</i>	O
Cherry Laurel	<i>Prunus laurocerasus</i>	O
Spotted Laurel	<i>Aucuba japonica</i>	O
Wild Privet	<i>Ligustrum vulgare</i>	O
Hawthorn	<i>Crataegus monogyna</i>	O
Elder	<i>Sambucus nigra</i>	O
Wood Dock	<i>Rumex sanguineus</i>	O
Green Alkanet	<i>Pentaglottis sempervirens</i>	O
Wood Avens	<i>Geum urbanum</i>	O
Cleavers	<i>Galium aparine</i>	O
Cow Parsley	<i>Anthriscus sylvestris</i>	O
Small Periwinkle	<i>Melastoma perfoliatum</i>	O
Cocks Foot	<i>Dactylis glomerata</i>	O
Horse Chestnut	<i>Aesculus hippocastanum</i>	R
Hornbeam	<i>Carpinus betulus</i>	R
Oak	<i>Quercus robur</i>	R
Japanese Euonymus	<i>Euonymus japonicus</i>	R
Copper Beech	<i>Fagus sylvatica</i>	R
Yew	<i>Taxus baccata</i>	R
Crack Willow	<i>Salix fragilis</i>	R
White Flower Shrub	N/a	R
Field Maple	<i>Acer campestre</i>	R
Damsons	<i>Prunus domestica</i>	R
Garlic Mustard	<i>Alliaria petiolata</i>	R
Enchanter's Nightshade	<i>Circaea lutetiana</i>	R
Lords-and-Ladies	<i>Arum maculatum</i>	R
Herb Robert	<i>Geranium robertianum</i>	R

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