Extended Phase 1 Habitat Survey

At

Parliament Hill School, Highgate Road, London, NW5 1RL

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Report Date	2nd June 2016	**Quality Checked**	Victoria Telford
Scope of Report	Extended Phase 1 Habitat Survey		

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Executive Summary

An Extended Phase One Habitat Survey was undertaken by an experienced ecologist at Parliament Hill School, Highgate Road, London, NW5 1RL on the 13th November 2013 and updated on the 20th May 2016.

The site includes school buildings, outside play areas and enclosed landscaped courtyard. The buildings on the site have been added over time with the original building sections pre-1900 up to a post-2000 modern building along the South of the courtyard area. There are a high number of mature individual trees on the site particularly along the frontage and Southern boundaries. The site is located to the South-east of a large urban park with large residential complexes to the South and East.

Along the Southern boundary behind the gym building next to a shipping container a stand of Japanese Knotweed was discovered on the initial survey in 2013. On the recent survey update in 2016 the stand was still present but with evidence of on-going treatment.

Site habitats have remained largely unchanged since the initial 2013 survey effort, based on the most recent survey effort the following recommendations are made:

- An update to the previous bat survey effort should be undertaken to determine if bats are still absent from the buildings on site.

- Site vegetation clearance should take place outside the bird nesting season (October - February);

- Bat and bird boxes should be included within the new development design and wherever possible wild flower seed mix (suitably sourced for the area) and native trees and shrubs used in new landscaping.

1.0 Introduction

Environmental Services were commissioned by Farrans Construction, to undertake an Extended Phase One Habitat Survey; the survey is required in relation to a planning application at Parliament Hill School, Highgate Road, London, the site is centred at Ordnance Survey Grid Reference TQ 282 860.

OS. Licence No.100043218

1.1 Site Description

A drawing of the development area is included within Appendix I and comprises of a school complex set within mature landscaped grounds and playing fields. The site is on a gentle slope from North to South and the buildings have been built in to the slopes throughout the site.

The site has a series of mature shrub ornamental beds along the frontage access routes and internal pathways connecting the buildings, with occasional trees. The rear of the site has a large open playing field which has boundary tree planting and a large area of long grass with a small allotment area in the North. The newest building is the Southern building enclosing the central courtyard which has a biodiversity roof.

1.2 Scope of Survey

We have been instructed to undertake an Extended Phase 1 Habitat Survey; this is not a survey for the purposes of The Wildlife and Countryside Act 1981 (Variation of Schedule 9 or Schedule 9) (England and Wales) Order which came into force on 6 April 2010 or National Vegetation Classification. This report has been produced with reference to current guidelines for preliminary ecological appraisal (CIEEM, 2012) and in accordance with BS42020:2013: Biodiversity – Code of Practice for Planning and Development.

We have been advised that the Eastern and Southern buildings on site will be removed with some renovation work undertaken on the retained buildings. There will be some construction of new buildings with associated landscaping.

The scope of the report is to assess the site and map all habitats present. In addition to this make recommendations based upon the findings of the survey in relation to European Protected or Notable Species and any phase 2 survey work required to satisfy planning requirements.

1.3 Limitations

All of the species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent during different seasons. Phase 1 habitat surveys can be undertaken at any time of the year; however, the optimum time of year for these surveys to be undertaken is between April and September (inclusive).

This survey was undertaken within this optimum period, and is therefore considered to provide a robust assessment of the habitats and species present within the site

2.0 Legislation, Policy and Conservation Status

2.1 Planning and Biodiversity

Local Authorities have a requirement to consider biodiversity under the following European legislation:

- Natural Environment and Rural Communities (NERC) Act (2006);
- The Habitats Directive (EC directive 92/43/EEC);
- Environmental Impact Assessment (85/337/EEC as amended by directive 09/31/EC);
- Strategic Environmental Assessment (2001/42/EEC);
- The Environment Act (1995).

Section 40 of the Natural Environment and Rural Communities Act 2006 (the NERC Act) places a legal duty on public bodies, including planning authorities, to 'have regard' to the conservation of biodiversity when carrying out their normal functions, which includes consideration of planning applications.

In compliance with Section 41 of the NERC Act, the Secretary of State has published a list of species and habitats considered to be of principal importance for conserving biodiversity in England under the UK Post-2010 Biodiversity Framework. This is known as the England Biodiversity Priority (EBP) list, previously referred to as Local Biodiversity Action Plan (LBAP), of which there are 56 habitats and 943 species (Natural England, 2014). The EBP list is used to guide planning authorities in implementing their duty under the NERC Act.

Local Authorities must also have regard for the following national planning policies:

- National Planning Policy Framework (NPPF) (DCLG, 2012);
- ODPM Circular 06/2005 (Defra Circular 01/2005);
- ODPM (March 2006) Planning for Biodiversity and Geological Conservation.

The Camden Biodiversity Action Plan 2013-2018, also contains the following local biodiversity objectives and targets with three key areas of focus: 1. Access to Nature; 2. The Built Environment; and 3. Open Spaces and Natural Habitats.

- Increase and maintain the local areas' level of mature trees, perennial species rich grasslands and hedgerows.
- Engage in environmental education programs
- Retrofit biodiversity and carbon reduction measures.

2.2 Legalisation and Local Policy Documents

Relevant legislation (as amended) and policy documents that have been consulted are detailed below:

- Wildlife and Countryside Act 1981 (as amended);
- The Conservation of Habitats and Species Regulations 2010;
- The Countryside and Rights of Way Act 2000;
- Natural Environment and Rural Communities Act 2006;
- The Protection of Badgers Act 1992;
- The Hedgerow Regulations 1997;
- UK Post-2010 Biodiversity Framework;
- National Planning Policy Framework (NPPF);
- Camden Biodiversity Action Plan 2013-2018.

2.3 Species Legislation

2.3.1 Bats

All species of bat and their breeding sites or resting places (roosts) are protected under Schedule 2 of The Conservation of Habitats and Species Regulations 2010 and Section 9 of the Wildlife and Countryside Act 1981 (as amended). It is an offence for anyone to:

- intentionally to kill, injure or handle a bat;
- possess a bat (whether live or dead);
- disturb a roosting bat, or sell or offer a bat for sale without a licence; or
- damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not

(*Natural England, 2016*)

A roost is protected whether or not bats are present and any activity or works affecting a roost, even when bats are absent, is likely to be subject to the relevant licence procedure with Natural England.

2.3.2 Water Vole *(Arvicola amphibious)*

The Water Vole has historically received limited protection through inclusion on Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). On the 6th April 2008 legal protection of this species was extended as such it is now an offence to:

- intentionally kill, injure or take (capture) a water vole;
- possess or control a live or dead water vole, or any part of a water vole;

- intentionally or recklessly damage, destroy or obstruct access to any structure or place which water voles use for shelter or protection or disturb water voles while they are using such a place; or
- sell, offer for sale or advertise for live or dead water voles.

(*Natural England, 2016*)

2.3.3 Otter *(Lutra lutra)*

Otters are currently increasing in number and distribution after a prolonged period of decline. They receive protection under both the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2010. Otters and their resting places are fully protected, it is an offence to:

- deliberately, capture, injure or kill them;
- to damage, destroy or obstruct their breeding or resting places;
- or to disturb otters in their breeding or resting places.

(*Natural England, 2016*)

There is, however, provision within the legislation to kill, take, disturb or possess otters or to use prohibited methods to kill or take under a licence in certain defined circumstances, if the issue cannot be resolved by any alternative means.

2.3.4 Great Crested Newts *(Triturus cristatus)*

Great Crested Newts (GCNs) are protected under Schedule 2 of The Conservation of Habitats and Species Regulations 2010 and Sections 9(1) and 9(4) of the Wildlife and Countryside Act 1981 (as amended).

The above makes it an offence to:

- deliberately capture, injure or kill a great crested newt;
- damage any place used for shelter or protection by the species, including breeding ponds and terrestrial habitats; or
- intentionally or recklessly disturb a great crested newt whilst it is occupying a place of shelter.

(*Natural England, 2016*)

The legislation applies to all stages of the life cycle including eggs, larvae and juveniles.

2.3.5 Hazel Dormouse *(Muscardinus avellanarius)*

Dormice are fully protected under UK and European legislation in England including the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010. Taken together, these legislative instruments make it illegal to:

- deliberately, capture, injure or kill them;
- to damage, destroy or obstruct their breeding or resting places;
- to disturb them in their breeding or resting places;
- possess or sell a wild dormouse.

(*Natural England, 2016*)

2.3.6 Birds

In the UK, the provisions of the Birds Directive are implemented through the Wildlife & Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2010. All wild birds, their nests and eggs are protected it an offence to:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any such bird whilst it is in use or being built; or
- take or destroying an egg of any such wild bird.

(*Natural England, 2016*)

The law covers all species of wild birds including common, pest or opportunistic species. Special protection against disturbance during the breeding season is also afforded to those species listed on Schedule 1 of the Act.

2.3.7 Reptiles

Adders, slow worms, grass snakes and common lizards are protected against killing and injuring under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). This legislation makes it illegal to intentionally kill or injure a common reptile. As a result, reptiles must be removed from areas of development and relocated onto suitable release sites before any site works can commence.

Smooth snakes and sand lizards are also protected under schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended) making them European Protected Species. This makes it illegal to carry out the following activities:

- Deliberately or recklessly disturb, capture or kill these animals;
- Deliberately or recklessly take or destroy eggs of these animals;
- Damage or destroy a breeding site or resting place of such a wild animal; or
- Keep, transport, sell or exchange, or offer for sale or exchange, any live or dead animal, or any part of, or anything derived from such a wild animal.

(*Natural England, 2016*)

2.3.8 Badgers *(Meles meles)*

Badgers and their setts are fully protected under the Protection of Badgers Act 1992. This Act makes it an offence, *inter alia*, to:

- Wilfully kill, injure or take, or attempt to kill, injure or capture a badger; or
- Interfere with a badger sett by doing any of the following things, intending to do any of these things or be reckless as to whether one's actions would have any of these consequences:
- Damage, destroy or obstruct access to a badger sett or any part of it.
- Disturb a badger when it is occupying a badger sett.

Where planning permission has been granted, Natural England may issue a licence to interfere with setts for development purposes. However, licences are only usually issued for works between July and November, a period when badgers are unlikely to have dependent young below ground.

(*Natural England, 2016*)

3.0 Methodology

3.1 Data Search

Records of protected species and non-statutory wildlife sites within a 1km radius of the application site were requested from the Greenspace Information for Greater London (GiGL).

Locations of statutory designated sites were accessed via the government 'MAGIC' website (www.magic.gov.uk).

3.2 Extended Phase 1 Habitat Site Survey

To fulfil the brief, an Extended Phase 1 Habitat Survey was conducted following the methodology of the Joint Nature Conservation Committee (JNCC) *Handbook for Phase I Habitat Survey - A Technique for Environmental Audit* (2010). Extended Phase I Habitat Survey is a standard technique for obtaining baseline ecological information for large areas of land in which the main vegetation types present within the survey area are mapped using a standard set of habitat categories. The aim is to provide records of habitats that are of significant ecological value.

Additional Target Notes

Additional target notes were made where applicable to record:

- Key habitat features.
- Ecological features not covered in sufficient detail in the Phase 1 Methodology.
- Important habitats too small to be mapped and to identify dominant species.
- Other features of ecological interest.

3.3 Protected Fauna and Flora Species

Potential signs/suitable habitats for the presence of European and Domestic protected species were recorded.

3.4 Ecological Value and Impact Assessment

Guidelines for ecological value and impact assessment within Volume 11 Section 2 of the Design Manual for Roads and Bridges (DMRB) (Department for Transport, 2009) have been used to place the ecological value of the site in context and assess the likely impacts of the proposed development.

The DMRB is considered by the author to offer a more workable methodology than other assessment methods currently available and is applicable to development situations other than roads and bridges.

Criteria used to assign value and assess likely impacts are provided in Appendix II.

4.0 Results: Desktop Survey

4.1 Data search

Biological records data was searched for and requested over a 1km radius from the Greenspace Information for Greater London (GiGL) (see Appendix IV).

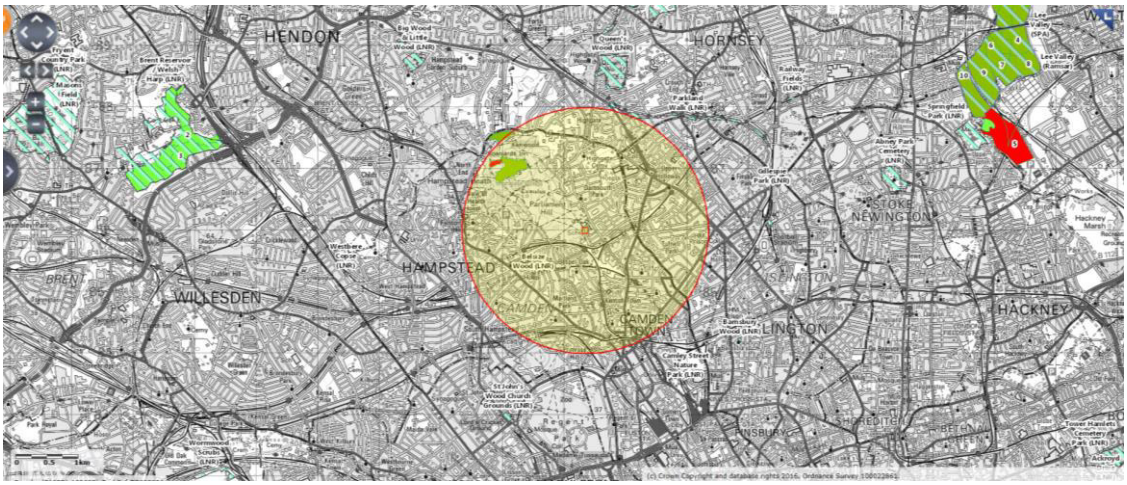
4.1.1 Summary of Protected Species Recorded within a 1km Radius

Species	Scientific Name	Distance from Grid Ref	Source	Date
Unidentified Bat	*Myotis*	921m	GiGL	2005
Daubenton's Bat	*Myotis daubentonii*	360m	GiGL	1993
		1km	GiGL	2000
Natterer's Bat	*Myotis nattereri*	860m	GiGL	2001
Nyctalus Bat species	*Nyctalus*	282m	GiGL	2002
Lesser Noctule	*Nyctalus leisleri*	282m	GiGL	2002
Noctule Bat	*Nyctalus noctula*	360m	GiGL	1993
		1km	GiGL	2005
Pipistrelle Bat species	*Pipistrellus*	100m	GiGL	1993
		1km	GiGL	2006
Common Pipistrelle Bat	*Pipistrellus pipistrellus*	100m	GiGL	1993
		1km	GiGL	2006
Soprano Pipistrelle Bat	*Pipistrellus pygmaeus*	282m	GiGL	2002
		1km	GiGL	2006
Vesper Bat	*Vespertilionidae*	860m	GiGL	1985
Serotine Bat	*Eptesicus serotinus*	1km	GiGL	2001

Table 1: Summary of Protected Species Desktop Records

4.1.2 Statutory Designated Nature Conservation Sites

Designated site information drawn from the Multi Agency Geographic Information for the Countryside site www.magic.com confirmed designated sites within the 2km search radius.



The following sites were found within the 2km search radius:

Local Nature Reserves:

1. Belsize Wood
2. Parkland Walk

Sites of Special Scientific Interest Units:

1. Hampstead Heath Woods (unfavourable declining x1)
2. Hampstead Heath Woods (unfavourable recovering x1)

In addition, from the information provided by the Records Provider, the following Sites of Nature Conservation Importance were identified:

1. Belsize Wood Local Nature Reserve
2. Hampstead Heath
3. Highgate Cemetery
4. Kentish Town City Farm, Gospel Oak Railsides and Mortimer Terrace Nature Reserve
5. Dartmouth Park Hill and Reservoir
6. Junction Road Railway Cutting
7. Holly Lodge Gardens

5.0 Results: Field Survey - Plants and Habitats

5.1 Field Survey

The site was surveyed on 13th November 2013 by Mr Philip May B.Sc MCIEEM, subsequently updated 20th May 2016 by Mr Jonathan Jones B.Sc (Hons) M.Sc ACIEEM; employed by Innovation Environmental Services (formerly Marishal Thompson Group). All habitats were recorded and described in terms of dominant and characteristic plant species using Phase 1 Habitat Survey methodology (JNCC, 2010). A fauna and flora species list was compiled (see Appendix III).

The site was searched for field signs of badgers such as runs, latrines and feeding signs and assessed in terms of its suitability for other notable or protected species including bats, otter, water vole, reptiles, amphibians, hazel dormouse and birds. In addition, observations were made to identify any primary EBP and Local BAP species or habitats of local, regional and national importance.

Weather conditions during the survey were dry and overcast with a light south westerly wind ambient day time temperatures for the survey were approximately 14ºC.

5.2 Plants and Habitats

Refer to Appendix I for Habitat Map and Appendix III for comprehensive species list and Target Notes.

The following habitats were recorded during the survey:

5.2.1 A3.1 Scattered Trees Broadleaved

The site has a number of mature trees throughout the grounds of the school, with the majority along the frontage of the site and parts of the Southern boundary and a few in the central courtyard of the school. Along the frontage and main entrance to the school there is a line of semi mature lime (*Tilia cordata*), along with individual specimens of London Plane (*Platanus acerifolia*), Horse Chestnut (*Aesculus hippocastanum*), Cherry (*Prunus sp.*), Birch (*Betula utilis*) and Maple (*Acer platanoides*). The Southern boundary is dominated by mature Italian Poplar (*Populus nigra Italia*), which have smaller trees planted in between, those present are Cherry (*Prunus sp.*), Oak (*Quercus robur*), Hornbeam (*Carpinus betulus*), Holm Oak (*Quercus ilex*) and Maple.

Around the Western boundary there is a line of scattered trees of the same species planted within the frontage, along the boundary fence and in the Southern part these form small groups around a surfaced seating area. Towards the Northern part of the boundary Holm Oak forms the majority of the trees present.

Within the Northern boundary there are a number of mature specimens of Holm Oak, English Oak, Cedar (*Cedurus atlantica*), Lime and semi-mature and self-set seedlings of Birch, Willow, Lime and Sycamore. All trees on site are of amenity value and are of ecological value for supporting nesting birds with larger mature trees providing bat roost potential.

5.2.2 C3.1 Tall Ruderal

Around the rear of buildings and within some of the smaller shrub beds common ruderal species are establishing, in particular along the Southern boundary behind two temporary buildings Bramble (*Rubus Sp.*), Ivy (*Hedra helix*), Willowherb (*Epilobium sp.*), Docks (*Rumex spp.*) Green Alkanet (*Pentaglottis sp.*), Comfrey (*Symphtum sp*). and Nettle (*Urtica dioica*) are established. These species are also present throughout the Western part of the site in places where regular mowing has stopped to allow long grass to form and as ground flora to some of the shrub beds throughout the northern part of the site.

Within the centre of the courtyard is a new curved single storey link building, which has a biodiversity roof. It was not possible to access this, however from ground level a similar species diversity could be seen along with some rank grasses.

Along part of the Northern boundary, a large area of Nettle has established between the playing field and the boundary trees. This has other common species present such as Red Dead Nettle (*Lamium purpureum*), Herb Robert (*Geranium robertianum*), Cleavers (*Galium aparine*), Mouse Ear (*Cerastium sp.*), Wood Avens (*Geum urbanum*) and Creeping Buttercup (*Ranunculus repens*). Close to the Northern boundary and top section of the large classroom building is a small allotment area containing bare ground and ruderal species along with some fruit bushes. The area has woven Willow (*Salix sp.*) hedge forming its boundary.

These areas have ecological value for foraging insects which provide a food source for bats and birds, and some nesting opportunities and ground foraging for common garden bird species.

5.2.3 J1.2 Amenity Grassland

The Western part of the site is dominated by a large open playing field and an area of grass that has been allowed to grow long. This area has common rank grass species associated with its use and maintenance, with Ryegrass (*Lolium sp.*), Meadow Grasses (*Poa sp.*), Cocksfoot (*Dactylis glomerata*) and common herbs such as Buttercup (*Ranunculus sp.*) and Daisy (*Bellis perennis*). The area of long grass in the North-western part of the site has had limited management and has not yet formed a diverse structure to be classed as a different category of grassland despite the presence of some ruderal herb species such as Alkanet (*Pentaglottis sp.*) and Cow Parsley (*Anthriscus sylvestris*).

Throughout the site are small areas of mown lawns, in places these are on low rolling mounds around buildings. These areas contain the similar species to the playing field.

The amenity grassland on the site is of limited ecological value with the exception of the area along the North-western boundary which may have an ecological value for foraging ground birds.

5.2.4 J1.4 Introduced Shrubs

The site has a high diversity of ornamental shrubs throughout the site. Along the frontage of the site, along the rear of the tennis courts and the main access entrance have been maintained in well-formed beds. Within the centre courtyard of the school a series of small short length beds with some planted pots along the footpaths crossing the area.

The species that have been used for the majority of these areas are; Spotted Laurel (*Aucuba japonica*), Laurel (*Prunus rotundiflia*), *Choisya*, *Hebe*, *Pyracantha*, *Phormium*, *Photinia*, *Ceanothus, Mahonia, Hydrangea, Symphoricarpus* and *Spirea*. Within these beds throughout the site are single specimen plants such as Cycads (*Cycas sp.*) Castor Oil Plant (*Fatsia japonica*), Mulberry (*Morus sp.*), *Berberis*, Bamboo (*Sasa palmate*), *Pyracantha*, *Viburnum* and Lilac (*Syringa sp*). The mature shrubs throughout the site have an ecological value for nesting and foraging birds.

To the rear of the gym building, behind a storage container, is a stand of Japanese Knotweed. The stand has reduced in size since the initial survey effort with evidence of on-going treatment for removal.

5.2.5 J2.4 Fence

A number of fences were present across the site; these were permanent features and are constructed using timber boards over wooden posts. In addition to this, there are metal chain-link security fences around the boundaries of the site, around the hardstanding courts and along the top of small brick walls. In parts around the boundaries Ivy (*Hedera helix*), *Clematis* and *Parthenocissus sp*. have established over the fences. Fences on site are of limited ecological value to nesting birds, due to the presence of climbers.

5.2.6 J3.6 Building

The buildings on site are of mixed age with the main building at the frontage of site being Victorian, four storeys in height with a steep pitched slate roof. The Western building and link corridor are 1970's, 3-4 storeys, with a flat roof. Modern buildings on the site consist of the building on the Southern boundary of the central courtyard with render and timber finishes and a biodiverse roof, and a large metal clad building on the North-eastern boundary.

There are a series of timber and metal storage buildings around the site along with temporary port-a-cabin style buildings. A site manager's house and private amenity area is located adjacent to the car park in the Southern boundary. The Northern, Western and Southern buildings constructed in the 1970 – 80's are of low ecological value with the Victorian parts of the site providing features suitable to support nesting birds and roosting bats.

5.2.7 J4 Bare Ground / Tarmac

The frontage of the site is dominated by a mix of tarmac covered car parking and tennis courts with small storage areas. There are small areas of bare ground and gravel between shrubs and mature trees. All of these areas are of negligible ecological value.

5.2.8 Adjacent Habitat

The site is bordered to the North by another school and to the South and across the frontage with Highgate road are multi storey residential properties. To the West is open amenity space. Further to the North and West is the locally important Hampstead Heath open space which contains areas of sites of special scientific interest (SSSI's).

6.0 Results: Field Survey - Fauna

6.1 Bats

There are 103 desk based records of bats within 1km of site. The development site itself is considered to be of moderate value for foraging and of low bat roost potential. This is based upon information gained during the survey effort that would suggest that the main building along the frontage of the site contains a number of features that bats could use to roost. The sites natural features could be used by foraging and commuting bats.

The initial bat survey effort undertaken in September 2014 found limited foraging by Common Pipistrelle (*Pipistrellus pipistrellus*), no roost sites were identified with the buildings scheduled for removal. An update to this survey effort is recommended in line with current guidelines.

6.2 Water vole (*Arvicola amphibious)* and Otter *(Lutra lutra)*

There are no records of Water vole within 1km of the site and no records of Otter. In addition, there was no habitat on the site considered suitable to sustain the species and no evidence of their presence was observed. No further survey effort is recommended.

6.3 Great Crested Newt (*Triturus cristatus)*

There were no records of Great Crested Newts within the 1km search area. The site is generally considered to be of low value for the species and Using Ordnance Survey Explorer Map 173 London North, A series of ponds are located to the north of the site within 500m**,** however these

are located within the Hampstead Heath complex and there is significantly higher value habitat between these ponds and the site, which would offer both breeding and terrestrial habitat that is not present on the site. Therefore the sites habitat is not considered suitable for the species and no further survey effort is required.

6.4 Birds

No specially protected Schedule 1 birds or potential breeding habitat were recorded during the Phase 1 Habitat Survey and no further survey effort is recommended. The site does contain a number of mature trees and shrubs around its boundary in particular, which contain evidence of nesting taking place. Therefore, if any development that takes place requires the removal of these areas or works to the shrubs or trees should do so outside the bird breeding season, (March to September inclusive). If works are to be undertaken within these timings then the area should first be inspected by a suitably qualified ecologist immediately prior to any works being undertaken. If nests are found to be present then these areas are to be left until the eggs have hatched and the young have fledged (normally 4-6 weeks dependant on species). This will ensure that there is no major impact on breeding birds which may occupy any of these features.

6.5 Reptiles

From the desk based study no reptile records were noted within the 1km search radius. The development area is considered to be of low suitability for reptiles. At present no further survey is recommended; however, if the proposed works on the site are altered and the long grass or ruderal areas along the western and part of the northern boundary are included then a further dedicated reptile survey is required.

6.6 Badger (*Meles meles)*

Biological records indicate no observations of badgers within 1km of the site; No evidence of use of the site by badgers was recorded during the field survey and no further survey effort is required.

6.7 Other fauna

No other fauna was observed during the survey.

6.8 Connectivity to statutory and non-statutory designated sites

Part of the western boundary of the site adjoins the open space which is connected to the Hampstead Heath complex. The proposed development does not pose any threat to connectivity of statutory and non-statutory sites in the region.

7.0 Ecological Value and Impact Assessment

The following section puts the value of the surveyed site into context and uses DMRB (DoT, 2008) criteria for assessing value and the potential magnitude of impact from the development proposals.

7.1 Ecological value

No UK BAP species were recorded during the Phase 1 Habitat Survey. Site habitats are species moderate in the wider ecological landscape. The site being affected by the development therefore is considered low in its potential to support protected, UK and local BAP and red data species and sensitive development may improve the site from this perspective.

Using DMRB criteria (Appendix II) the site is considered of moderate ecological value.

7.2 Impact Assessment

The proposed development will have a minor magnitude of impact upon the site and its ecological features.

Therefore a minor impact upon a site of moderate value constitutes an ecological impact of slight magnitude.

Considering the size of the site and the nature of the habitats involved the proposed development is considered to pose a slight impact on local biodiversity and this should be offset by biodiversity enhancement associated with landscaping and inclusion of bat and bird boxes within the building structure.

8.0 Recommendations & Conclusion

The Phase One Habitat Survey was undertaken by an experienced ecologist and the following recommendations are made:-

8.1 A dedicated bat survey will be required to evaluate the activity and presence of bats within the site and the boundary. The buildings on the site have a number of features suitable to support roosting bats and the landscaped areas are of ecological value for foraging bats.

8.2 Any site clearance should take place outside the bird nesting season (October - February); if this is not possible then the site should be surveyed by a trained ecologist prior to works commencing. It should be noted that if nesting birds are found then work cannot commence until the young have fledged.

8.3 Bat and bird boxes should be included within the new development design and wherever possible wild flower seed mix (suitably sourced for the area) and native trees and shrubs used to landscape areas surrounding the new buildings. Assistance should be engaged from an ecologist in the design and location of bird/bat boxes.

8.4 No further survey effort is considered necessary unless changes are made to the development area to be affected over and above those indicated within this report.

9.0 References

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Websites for access to Full Legislation and Policy Text:

Birds Directive:
http://ec.europa.eu/environment/nature/legislation/birdsdirective/index_en.htm

Conservation of Habitats and Species Regulations 2010 (as amended):
http://www.legislation.gov.uk/uksi/2012/1927/contents/made

Countryside and Rights of Way Act 2000:
http://www.legislation.gov.uk/ukpga/2000/37/contents

Habitats Directive:
http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm

National Planning Policy Framework:
http://www.communities.gov.uk/documents/planningandbuilding/pdf/2116950.pdf

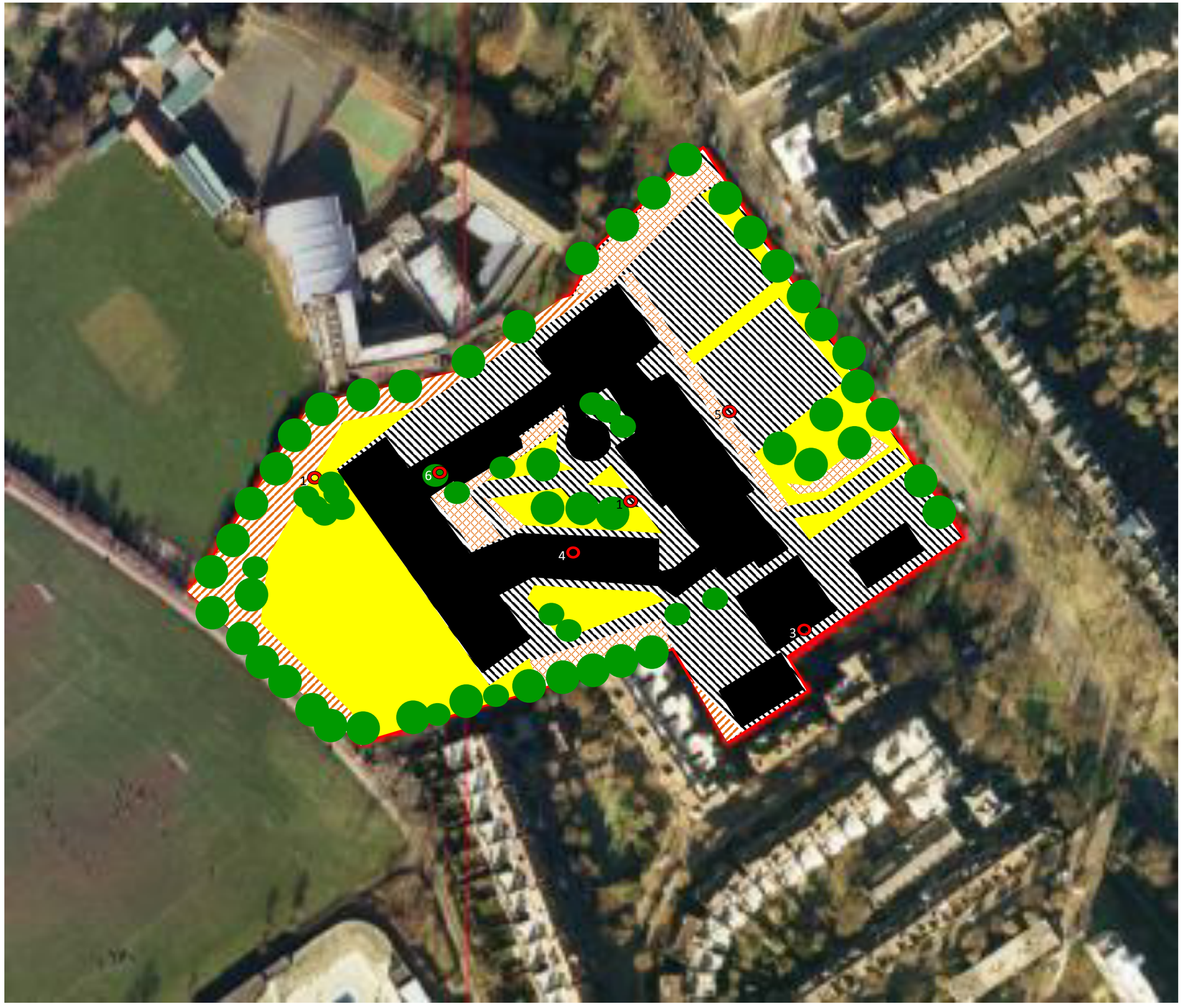
Natural Environment and Rural Communities Act 2006:
http://www.legislation.gov.uk/ukpga/2006/16/contents

UK Post-2010 Biodiversity Framework:
http://jncc.defra.gov.uk/page-6189.

Wildlife and Countryside Act 1981 (as amended):
http://www.legislation.gov.uk/ukpga/1981/69

Appendix I

Phase 1 Habitat Map



KEY

- **A3.1** Broadleaved Scattered Trees
- **C3.1** Tall Ruderal
- **J1.2** Amenity Grassland
- **J1.4** Introduced Shrubs
- **J2.4** Fence
- **J3** Hardstanding
- **J3.6** Buildings
- 1 Target Note (see Target Note table)

Phase 1 Habitat Plan

Parliament Hill School, Highgate Road, London, NW5 1RL

Plan Ref

EC0.12905.v1

Date

25.05.2016

innovation group environmental services

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Appendix II

DMRB Assessment Criteria

Table 1. Environmental Value (Sensitivity) and Typical Descriptors

Value (sensitivity)	Typical descriptors
Very High	• Very high importance and rarity, international scale and very limited potential for substitution.
High	• High importance and rarity, national scale, and limited potential for substitution.
Medium	• High or medium importance and rarity, regional scale, limited potential for substitution.
Low (or Lower)	• Low or medium importance and rarity, local scale.
Negligible	• Very low importance and rarity, local scale.

Table 2. Magnitude of Impact and Typical Descriptors

Magnitude of impact	Typical criteria descriptors
Major	• Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements (Adverse).
	• Large scale or major improvement of resource quality; extensive restoration or enhancement; major improvement of attribute quality (Beneficial).
Moderate	• Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements (Adverse).
	• Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality (Beneficial).
Minor	• Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements (Adverse).
	• Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring (Beneficial).
Negligible	• Very minor loss or detrimental alteration to one or more characteristics, features or elements (Adverse).
	• Very minor benefit to or positive addition of one or more characteristics, features or elements (Beneficial).
No change	• No loss or alteration of characteristics, features or elements; no observable impact in either direction.

Table 3. Arriving at Significance of Effect Categories

		MAGNITUDE OF IMPACT (DEGREE OF CHANGE)				
		No change	**Negligible**	**Minor**	**Moderate**	**Major**
ENVIRONMENTAL VALUE (SENSITIVITY)	Very High	Neutral	Slight	Moderate or Large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or Moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Appendix III

Species List and Target Notes

Target Note	Common Name	Latin	Comment
	Horse Chestnut London Plane Lime Alder Liquidamber Manna Ash Honey locust Holm Oak Sycamore Scots Pine Alder Birch Ginkgo Rowan Whitebeam Willow Hazel Cherry Hawthorn Holly	*Aesculus hippocastanum* *Platanus acerifolia* *Tilia cordata* *Alnus sp.* *Liquidamber styraciflua* *Fraxinus ornus* *Gleditisia triacanthos* *Quercus Ilex* *Acer pseudoplantanus* *Pinus Sylvatica* *Alnus cordata* *Betula pendula* *Betula jackmontii* *Betula papyrifera* *Ginkgo biloba* *Sorbus aucuparia* *Sorbus aria* *Salix spp* *Corylus avellana* *Prunus spp* *Crataegus monogyna* *Ilex sp.*	Main tree species throughout the site.
	Laurel Ivy Maple Privet Blackthorn Hawthorn Sycamore Yew Elder Hazel	*Luaus sp.* *Hedera helix* *Acer sp.* *Ligustrum vulgare* *Prunus spirea* *Crataegus sp.* *Acer Pseudoplantanus* *Taxus baccata* *Sambucus nigra* *Corylus avellana*	
	Perennial Rye Grass Cocks Foot False Oat Grass Red fescue Bents Yarrow Daisy Dandelion Creeping Buttercup Black Medick White Clover Bramble Chickweed Sorrel St. Johns Wort Ground ivy Speedwell Hoary plantain Creeping thistle Spear thistle Nettle Ivy Greater Plantain Ragwort Red dead nettle Herb Robert Cleavers Mouse ear Wood evens	*Lolium perenne* *Dactylis glomerata* *Arrhenatherum elatius* *Festuca rubra* *Agrostis stolonifera* *Achillea millefolium* *Bellis perennis* *Taraxacum officinale* *Ranunculus repens* *Medicago lupulina ,* *Trifolium alba* *Rubus spp* *Stellaria media* *Rumex acetosa* *Hypericum perforatum* *Glechoma hederacea* *Veronica arvensis* *Plantago media* *Cirsium arvense* *Cirsium vulgare* *Urtica dioica* *Hedera helix* *Plantago major* *Senecio sp* *Geranium robertianum* *Galium aparine* *Lamium purpureum* *Cerastium sp.* *Geum urbanum*	Dominant species present within Amenity Grassland and ruderal areas throughout the site.

	Willowherb Docks Green Alkanet Comfrey.	*Epilobium sp* *Rumex sp.* *Pentaglottis sp.* *Symphtum sp*	
	Mahonia Rosemary Laurel Hebe Birch Spirea Forsythia Lilac, Camellia Hydrangea Buddleja Clematis Dogwood Rose Yucca Spotted Laurel, Choisya, Pyracantha, Phormium, Photinia, Ceanothus, Hydrangea Spirea. Cycads Castor Oil Plant, Spanish Broom Viburnum Christmas Box	*Mahonia aquifolium* *Rosmarinus officinalis* *Prunus laurocerasus* *Hebe sp.* *Betula pendula* *Syringa vulgaris* *Camellia sp.* *Hydrangea macrophylla* *Buddeliea sp.* *Clematis sp.* *Cornus alba* *Rosa sp.* *Yucca sp.* *Aucuba japonica* *Cycas sp* *Fatsia japonica* *Spartium junceum* *Sarcococca confusa*	Dominant ornamental species in borders around site. Around the front and the base of the buildings are a series of thin ornamental beds.
1	Spider Plant Regal Pelargonium Cotton Lavender Helenium Rudbeckia Viburnum Choisya Bamboo Eleagnus	*Chlorophytum comosum* *Euryops actaeus* *Sedum spathulium*	Seasonal bedding that was present at the time and dominate lower flora present in the central court yard.
2	Allotment area	*Malus sp.* *Pyrus sp.* *Prunus sp.* *Willow sp.*	Within the area along the northern part of the site. there are small raised beds with small fruit trees along with frit shrubs have been planted
3	Japanese Knotweed		Along the southern boundary behind a shipping container to the rear of the Gym building.
4			This building has a biodiverse roof which was not able to be inspected.
5			Parts of the front shrub beds also have long thin sections of lawn.

6			Internal courtyard pond with amenity planting.
BIRDS	Magpie Blackbird Wood pigeon Robin Wren	*Pica pica* *Turdus merula* *Columba palumbus* *Erithacus rubecula* *Troglodytes troglodytes*	Seen on the site.

Appendix IV

Background Data Search

Site Check Report Report generated on Wed May 11 2016
You selected the location: Centroid Grid Ref: TQ282860
The following features have been found in your search area:

Local Nature Reserves (England) - points
Reference
1421538
Name
BELSIZE WOOD
Hectares
0.27
Hyperlink
http://www.lnr.naturalengland.org.uk/special/lnr/lnr_details.asp?themeid=1421538

Local Nature Reserves (England)
Reference
1421538
Name
BELSIZE WOOD
Hectares
0.27
Hyperlink
http://www.lnr.naturalengland.org.uk/special/lnr/lnr_details.asp?themeid=1421538
Reference
1009064
Name
PARKLAND WALK
Hectares
14.31
Hyperlink
http://www.lnr.naturalengland.org.uk/special/lnr/lnr_details.asp?themeid=1009064

Sites of Special Scientific Interest Units (England) - points
Name
HAMPSTEAD HEATH WOODS
Reference
1064031
Site Unit Condition
UNFAVOURABLE DECLINING
Citation
1004944
Hectares
1.56
Hyperlink
http://designatedsites.naturalengland.org.uk/UnitDetail.aspx?UnitId=1004944
Name
HAMPSTEAD HEATH WOODS
Reference
1064032
Site Unit Condition
UNFAVOURABLE RECOVERING
Citation
1004945
Hectares
14.61
Hyperlink
http://designatedsites.naturalengland.org.uk/UnitDetail.aspx?UnitId=1004945

Sites of Special Scientific Interest Units (England)
Name
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Reference
1064031
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1004944
Hectares
1.56

Hyperlink
http://designatedsites.naturalengland.org.uk/UnitDetail.aspx?UnitId=1004944
Name
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Citation
1004945
Hectares
14.61
Hyperlink
http://designatedsites.naturalengland.org.uk/UnitDetail.aspx?UnitId=1004945

Areas of Outstanding Natural Beauty (England)
No Features found
Limestone Pavement Orders (England)
No Features found
Moorland Line (England)
No Features found
National Nature Reserves (England) - points
No Features found
National Nature Reserves (England)
No Features found
National Parks (England)
No Features found
National Parks: Lake District and Yorkshire Dales Variation Orders 2012 - subject to confirmation (England)
No Features found
Ramsar Sites (England) - points
No Features found
Ramsar Sites (England)
No Features found
Special Areas of Conservation (England) - points
No Features found
Special Areas of Conservation (England)
No Features found
Special Protection Areas (England) - points
No Features found
Special Protection Areas (England)
No Features found
Biosphere Reserves (England) - points
No Features found
Biosphere Reserves (England)
No Features found

Appendix V

Photographs

Plate 1: Rear building on the site with playing field (left 2013, right 2016)

Plate 2: Mature trees on frontage (left 2013; right 2016)

Plate 3: Japanese knotweed stand

Plate 4: Original building and extensions

Plate 5: Playing fields

Plate 6: Metal clad modern building

Appendix VI

Ecology Survey Calendar

SURVEY ACTIVITY	MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
BACKGROUND DATA SEARCH													
DESK STUDY													
BOTANICAL – INITIAL SURVEYS													
EXTENDED PHASE 1 HABITAT SURVEY													
BOTANICAL PHASE 2 SURVEYS													
NATIONAL VEGETATION CLASSIFICATION SURVEY – WOODLAND													
NATIONAL VEGETATION CLASSIFICATION SURVEY – GRASSLAND													
HEDGEROW SURVEY													
RIVER CORRIDOR SURVEY													
SPECIES - INITIAL SURVEYS													
INITIAL SPECIES WALKOVER SURVEY													
SPECIES PHASE 2 SURVEYS													
BADGER-SETT/ ACTIVITY SURVEY													
BAT (BAT ROOST POTENTIAL BRP)													
BAT DUSK EMERGENCE/ DAWN RE-ENTRY/ ACTIVITY SURVEYS													
BAT HIBERNATION SURVEYS													
BIRDS (BREEDING)													
BIRDS (WINTERING)													
COMMON DOREMOUSE (NUT SEARCHES)													
COMMON DOREMOUSE (NEST TUBE/ BOX SURVEYS)													
GREAT CRESTED NEWT SURVEY													
GREAT CRESTED NEWT (HABITAT SUITABILITY INDEX HSI)													
INVERTEBRATES (TERRESTRIAL)													
INVERTEBRATES (AQUATIC)													
OTTER (FIELD SIGN SEARCHES)													
REPTILE SURVEY AND TRANSLOCATION													
WHITE CLAWED CRAYFISH													
WATER VOLE (FIELD SIGN SEARCHES)													

OPTIMAL PERIOD FOR SURVEY WORK

SUB OPTIMAL PERIOD FOR SURVEY WORK

UNSUITABLE NO SURVEY

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MITIGATION ACTIVITY	MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
BACKGROUND DATA SEARCH													
HABITATS / VEGETATION TRANSLOCATION		Planting and Translocation		No Mitigation for the Majority of Species							Planting and Translocation		
BADGER SETT EXCLUSION (ONLY UNDER EPS LICENCE)		Construction of Artificial Setts only						Exclusion from Setts and Destructive Search					
BAT EXCLUSION / WORKS AFFECTING BAT ROOSTS (ONLY UNDER EPS LICENCE)		Works on Maternity and Summer Roosts		Works on Maternity and Hibernation Roosts		Works on Hibernation Roosts Only				Works on Maternity and Hibernation Roosts		Works on Maternity and Summer Roosts	
BREEDING BIRDS CLEARANCE WORKS		Clearance Works		Clearance Works should be Avoided (nesting season) but may be possible under Ecological Supervision						Clearance Works			
COMMON DOREMOUSE DISPLACEMENT (ONLY UNDER EPS LICENCE)		No Clearance Works as Hibernating			Small Scale Clearance Possible		Avoid Clearance Works (breeding season)			Clearance, Translocation and Release		No Clearance as Hibernating	
GREAT CRESTED NEWT TRANSLOCATION (ONLY UNDER EPS LICENCE)		No Trapping as Hibernating		Trapping and Translocation in Ponds and on Land				Trapping and Translocation on Land only				No Trapping as Hibernating	
INVERTEBRATES (TERRESTRIAL)		Due to the Large Diversity of Invertebrates and their Varied Habitats, the Timing of Mitigation Works depends on the Species and Nature of Works being Undertaken											
OTTER (FIELD SIGN SEARCHES) (ONLY UNDER EPS LICENCE)		Mitigation can Potentially be Conducted in any Month, but is Likely to be Restricted where Otters are Breeding											
REPTILE TRANSLOCATION		Scrub Clearance only		Capture/Translocation and Scrub Clearance				Scrub Clearance only		Capture/ Translocation and Scrub Clearance		Scrub Clearance only	
WHITE CLAWED CRAYFISH (ONLY UNDER EPS LICENCE)		Avoid Disturbance (low activity)				Avoid Disturbance (breeding season)			Exclusion Works			Avoid Disturbance	
WATER VOLE DISPLACEMENT / TRANSLOCATION (ONLY UNDER LICENCE)		Avoid Works in Habitat		Trapping and Exclusion		Avoid Works (breeding season)			Trapping and Exclusion		Avoid works in Habitat		

OPTIMAL PERIOD FOR MITIGATION WORKS

SOME MITIGATION WORKS POSSIBLE

MITIGATION WORKS NOT POSSIBLE

N.B. MANY ECOLOGICAL SURVEYS ARE WEATHER DEPENDENT AND ADVERSE WEATHER COULD DELAY THE SURVEY EFFORT/ SURVEY / MITIGATION TIMINGS

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