Bat Survey - Preliminary Roost Assessment

36-52 Fortess Grove London NW5 2HB

Alephco Developments Ltd.

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Update	1.4	Craig Williams BSc (Hons) MSc GradCIEEM MRSB, Associate	10/11/2017

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Executive summary

- Arbtech Consulting Ltd. undertook a Preliminary Roost Assessment 36-52 Fortess Grove London NW5 2HB on 2nd November 2017. The aim of the assessment was to consider the value and suitability of the site for roosting bats.

- This report is prepared in support of a granted planning application with the London Borough of Camden. The proposed development is described from this as:
    - [The] Erection of roof extension, rear infill extension, external alterations and landscaping of courtyard at 36-52 Fortess Grove.

Recommendations - This is work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent.

Survey feature	Recommendations
B1 (Workshops)	No further surveys required, but enhancements are recommended. In the unlikely event that bats are unexpectedly found during any stage of the development, work should stop immediately, and a suitably qualified ecologist should be contacted to seek further advice

For full justification of these recommendations, please go straight to section 4.0 Conclusions, Impacts and Recommendations. Otherwise, the full report starts below.

Contents

1.0 Introduction and Context

1.1 Background

- Arbtech Consulting Ltd were commissioned by Alephco Developments Ltd. to undertake a Preliminary Roost Assessment Survey (PRA) at 36-52 Fortess Grove London NW5 2HB. The assessment is informed by the Bat Conservation Trust publication *Bat Surveys for Professional Ecologists – Good Practice Guidelines* (Collins, J. (Ed) 2016).

- A previous Preliminary Roost Assessment was undertaken by Arbtech Consulting Ltd in October 2015.

1.2 Site Context

- The survey site is located at National Grid Reference TQ29038541. There is one survey buildins on site, which are designated as B1 (0.16ha). This is the subject of this survey.

1.3 Scope of the report

This report provides a description of all features suitable for roosting bats, and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It provides information on constraints to the proposals as a result of roosting bats, and summarises the requirements for any further surveys, to inform subsequent mitigation proposals, achieve Planning or other statutory consent, and to comply with wildlife legislation.

The aim of the assessment was to determine the presence or evaluate the likelihood of presence of roosting bats, and to gain an understanding of how they could use the site. To achieve this, the following steps have been taken:

- A desk study has been carried out.
- A field survey has been undertaken, including an external survey and internal inspection where possible.
- An outline of likely impacts on any known roosts has been provided, based on current development proposals.
- Recommendations for further survey and assessment have been made, along with advice on European Protected Species Mitigation Licensing if appropriate.

A survey plan is presented in Appendix 1, the proposed Project Plan is included in Appendix 2 (where available), a summary of relevant legislation can be found in Appendix 3, and desk study results are provided in the Appendix 4.

1.4 Project Description

- This report is prepared in support of a granted planning application with the London Borough of Camden. The proposed development is described from this as:
    - [The] Erection of roof extension, rear infill extension, external alterations and landscaping of courtyard at 36-52 Fortess Grove.

The proposed site plan is included in Appendix 2 (where available).

2.0 Methodology

2.1 Desk Study methodology

- Existing bat records relating to the site and a surrounding 2km radius (the study area) are required to conform to national survey guidelines, and these have been ordered from the local records centre (London Bat Group) to fully inform the desk study.

The data search is confidential information that is not suitable for public release.

A review of the following information sources has also been undertaken to inform the assessment:

- Landscape structure using aerial images from Google Earth and OS maps
- Designated sites, habitat and granted EPSL records held on Magic.gov.uk.

2.2 Site Survey methodology

- The survey was undertaken by Craig Williams (Natural England Bat Licence Number: 2015-11169-CLS-CLS) on 2nd November 2017.

All features that will be impacted by the project proposals were assessed for their bat roosting and/or commuting habitat. The surveyor systematically surveyed all features suitable for-bats and signs of bat activity.

For any surveyed buildings:

A non-intrusive visual appraisal from the ground using binoculars, inspecting the external features of the building(s) for potential access/egress points, and for signs of bat use. An internal inspection of the building was also made, including the living areas of derelict or abandoned buildings and the accessible roof spaces of all buildings, using an endoscope, torch and ladders. The surveyor paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows, and carried out a detailed search of numerous features within the roof space.

For any surveyed trees

A visual inspection from ground level using binoculars and where accessible an internal inspection of suitable roosting features using an endoscope, torch and ladders.

2.3 Breeding birds and other incidental observations

The surveyor also made note of any other ecological constraints observed during the survey, notably the likelihood of presence or signs of breeding birds, and the suitability of the site for barn owls *Tyto alba*.

2.4 Suitability Assessment

All affected survey features on site were categorised according to the likelihood of bats being present, in line with best practice guidelines (Collins, J. (ed) 2016). The features that dictate the likelihood of roosting bats are summarised in Tables 1 and 2 below. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed.

Table 1: Features of a building that are correlated with use by bats

Likelihood of bats being present	Feature of building and its context
Higher	Buildings/structures with features of particular significance for roosting bats e.g. mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows. Site is proximate to known or likely roosts (based on historical data).
Lower	A small number of possible roost sites/features, used sporadically by more widespread species. Habitat suitable for foraging in close proximity, but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.

Table 2: Features of a tree that are correlated with use by bats

Likelihood of bats being present	Feature of tree and its context
Higher	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, conditions and surrounding habitat.
Lower	A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features seen with only very limited roosting potential.

2.5 Limitations – evaluation of the methodology

It should be noted that whilst every effort has been made to describe the features on site in the context of their suitability for roosting bats, this does not provide a complete characterisation of the site. This survey provides a preliminary view of the likelihood of bats being present. This is based on suitability of the habitats on the site and in the local area, the ecology and biology of bats as currently understood, and the known distribution of bats as recovered during the desk study.

- There were no specific limitations to the survey regarding exterior visibility, safety from biotic (e.g. wasps) or abiotic (e.g. asbestos) sources or adverse weather. Therefore, the survey was carried out to its fullest extent, and the conclusions are made based on the maximum range of evidence.

3.0 Results and Evaluation

3.1 Desk Study Results

A summary of desk study results is provided below; full details are included in Appendix 4.

3.2 Designated sites

Table 3 provides details of any designated sites including their reasons for notification. Any relevant locations and extents are illustrated in Appendix 4.

Table 3: Designated sites within 2km radius of the site

Designated Site Name	**Distance from Site (approx.)**	**Reasons for Notification from Natural England and/or BRD or LPA policy maps**
Statutory Sites		
Belsize Wood LNR	~1500m west	Local Nature Reserve *There is a pond, bird feeding area, large insect house, Stag beetle loggeries, bird boxes and other biodiversity enhancing features. Belsize Wood has a broad diversity of insect species, probably due to a floral diversity within the LNR.*
Non-statutory Sites		
None Known	N/A	N/A

3.3 Landscape

The survey site is situated in urban north London. The immediate local land use around the survey building consists of high density housing and roads, extending in all directions for over a kilometre. A train track passes ~180m to the south, and could provide a possible commuting route. The closest source of open water is a narrow pond ~500m to the north-west, more ponds are located in Hampstead heath.

Priority habitats within 2km of the site are listed in Table 4.

Table 4: Priority Habitat Inventory within 2km (Magic.gov.uk):

Habitat	**Closest distance from site**
National forest inventory	~280m north-west
Deciduous woodland	~810m north-west
Lowland heathland	~820m north-west
Good quality semi-improved grassland	~870m north-west
Traditional orchard	~960m north-west
Wood-pasture and Parkland	~1090m north-west

Figure 1: Aerial photo of site, showing landscape structure

3.4 Historical records

- To conform to best practice guidelines, historic bat records within a 2km radius of the site have been obtained from the local biological records centre (London Bat Group). These are analysed and summarised below in Table 5:

Table 5: Historical records of confirmed bat species within 2km of the site

Common name	**Scientific binomial**	**Roost record?**
Soprano Pipistrelle	*Pipistrellus pygmaeus*	Yes
Common Pipistrelle	*Pipistrellus pipistrellus*	Yes
Myotis species	*Myotis spp.*	Yes
Brown Long Eared bat	*Plecotus auritus.*	Yes
Nathusius' Pipistrelle	*Pipistrellus nathusii*	No
Daubenton's Bat	*Myotis daubentonii*	No
Noctule	*Nyctalus noctula*	No
Serotine	*Eptesicus serotinus*	No
Leisler's Bat	*Nyctalus leisleri*	No

A 2km radius search of the Magic database for granted European Protected Species Mitigation Licences (EPSMLs) for bats was undertaken.

Table 6: Granted EPSMLs (bats) within 2km of the site

Case reference of granted application	**Approx. distance from site**	**Bat Species Effected**	**Licence Start Date:**	**Licence End Date:**	**Impacts allowed by licence**
None					

3.5 Field Survey Results

- There is one building on site. This is designated as B1 and is illustrated in the map in Appendix 1. The environmental variables recorded at the time of the survey are shown in Table 7.

Table 7: Environmental variables during the survey

Date: 02/11/2017	
Temperature	10°C
Humidity	72%
Cloud Cover	60%
Wind	2 m/s
Rain	None

3.6 Site Feature descriptions

- **Building descriptions**

B1 – Workshops building –2017 update

B1 is a brick built former workshop building. The general fabric of the structure is unchanged since the previous Preliminary Roost Assessment Survey in 2015. However, internal works are ongoing.

The two main sections are former commercial garage buildings with roofs of corrugated asbestos and metal, the larger to the north and a small one joined to the east. There are numerous plastic skylights across both roofs, illuminating the interior. Small parapet walls are found around the structure on all elevations. The external brickwork, although old is of a good condition without any cracks or fissures. Concrete lintels above the large garage doors are also intact. New timber hoardings enclose the western site entrance.

The interior of the workshops show an internal steel frame and the large windows and skylights illuminate the spaces. The central ridge beam is a large steel girder. A messanine floor of the main workshop has been removed, with other fixtures and fitting stripped away exposing more brickwork, although this is of a good condition. New foundation girders have been insatlled in the main section, and the soil floor is covered by a liner. In the smaller, eastern workshop ground works involving the pouring of concrete are ongoing.

- **Bat evidence found on site**

  No bat evidence was found internally or externally during the survey of the building.

- **Nesting birds**

  No evidence of nesting birds was found on site in or on the buildings.

Photo 1: Looking east at the entrance of the site. The main section is to the left and the subsection is in the centre.

Photo 2: Eastern elevation of the main section of B1.

Photo 3: Western elevation of the main section of B1.

Photo 4: Southern elevation of the main section of B1.

Photo 5: The western elevation of the subsection of B1.

Photo 6: Looking south across the interior of the main section of B1.

4.0 Conclusions, Impacts and Recommendations

4.1 Informative guidelines

Bats are protected under the Wildlife and Countryside Act and Conservation Regulations; see Appendix 3 for a summary of legislation protecting bats in the UK. Legislation protects all wild birds whilst they are breeding, and prohibits the killing, injuring or taking of any wild bird or their nests and eggs. Certain species of bird, including the barn owl, are subject to special provisions; it is an offence to disturb any bird or their young during the breeding season.

There are three possible outcomes of this survey, each with specific recommendations. These are outlined below:

Confirmed bat roost

Best practice survey guidelines (Collins, 2016) recommends additional surveys for confirmed roosts. Three further surveys are required to characterise the bat roost present including species, roost type and access points to inform a European Protected Species Mitigation Licence (EPSML) application with Natural England. Surveys must be completed during the active bat season (May – September). At least two of the surveys should be completed during the optimal survey period mid-May to August, and at least on the surveys should be a dawn re-entry survey (Collins, J. 2016).

Low, moderate or high likelihood of a bat roost present

Best practice survey guidelines (Collins, 2016) recommends additional surveys for features assessed as having low to high suitability for roosting bats. One, two or three further surveys are required to confirm presence/likely-absence of a bat roost, based on a low, medium or high roost likelihood evaluation. Surveys must be completed during the active bat season (May – September). If more than one survey is recommended, at least one of them should be completed during the optimal survey period mid-May to August, and at least one the surveys should be a dawn re-entry survey (Collins, J. 2016). The survey effort recommended at this stage is iterative and if bats are recorded emerging from the buildings, a further survey will be required to provide sufficient information to inform an EPSML application to Natural England.

Negligible likelihood of a bat roost present

Buildings assessed as comprising negligible suitability for roosting bats do not normally require further surveys. However, if bats are found during any stage of the development, work should stop immediately and a suitably qualified ecologist should be contacted to seek further advice.

Appropriate justification for this assessment is provided in Section 3 and Tables 1 and 2 of this report.

4.2 Evaluation

Taking the desk based assessment and site survey results into account, the following value for roosting bats has been placed on each site survey feature.

Table 8: Evaluation of buildings/trees on site

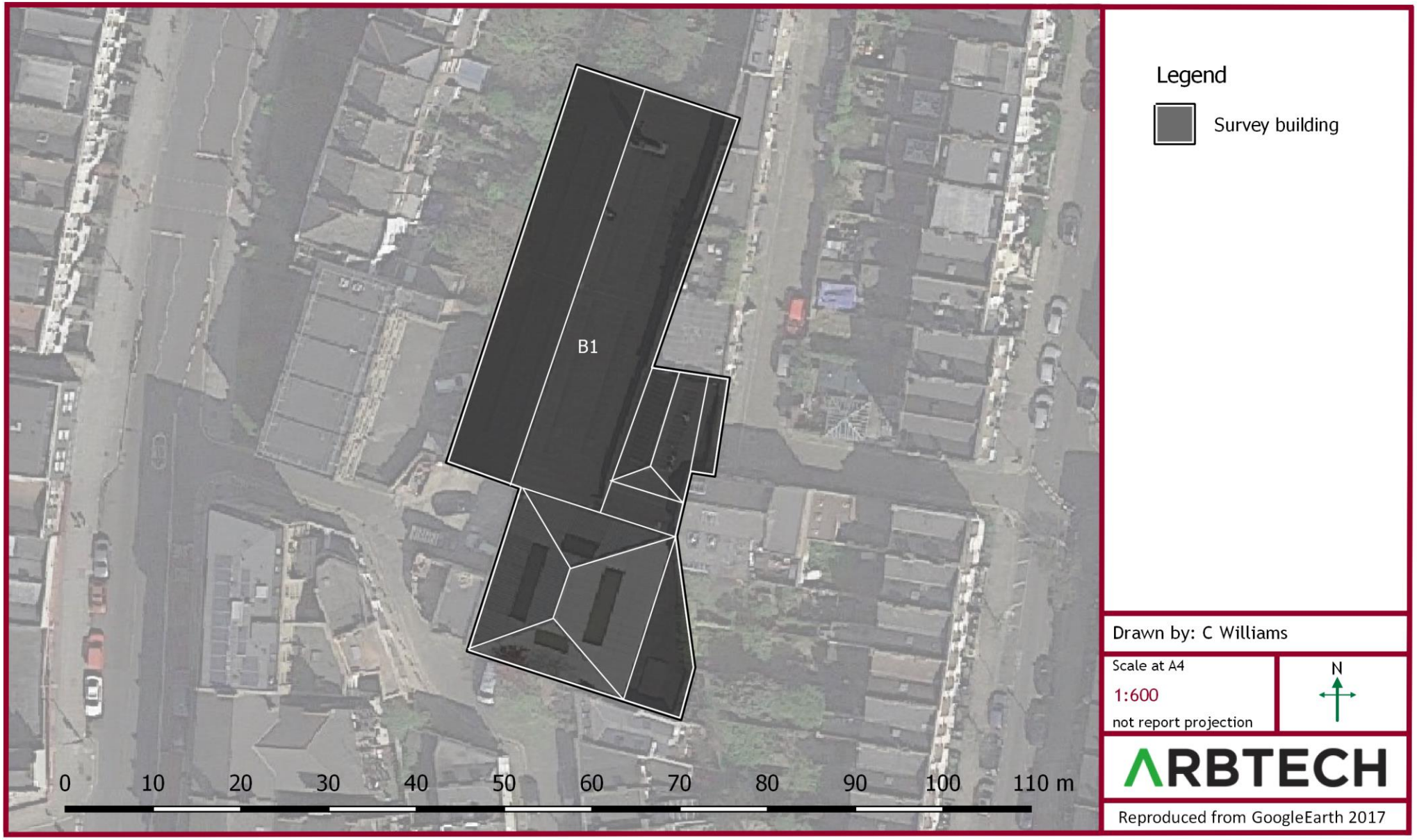
Ref	**Survey assessment conclusions (with justification)**	**Foreseen impacts**	**Recommendations**	**Enhancements** The Local Planning Authority has a duty to ask for enhancements under the NPPF and circular 06/2005: Biodiversity and Geological Conservation. Para.99
B1 (Workshop)	This building has a **negligible** likelihood of supporting roosting bats based on the evidence gathered in the desk study and field survey.	Bats are very unlikely to be roosting within this building and as such, there are not anticipated to be any impacts on bats by the works.	No further surveys required, but enhancements are recommended. In the unlikely event that bats are unexpectedly found during any stage of the development, work should stop immediately, and a suitably qualified ecologist should be contacted to seek further advice	To enhance the value of the site for bats, it is recommended that habitat enhancements are included as part of the development ➢ install of a minimum of two bat boxes on the renovated building, e.g: ➢ 2x 1QW Schwegler Bat Box ➢ Bat boxes should be positioned 3-5m above

				ground level facing in a south/south-westerly direction with a clear flight path to and from the entrance. ➢ Bat boxes should also be positioned away from any artificial light sources.

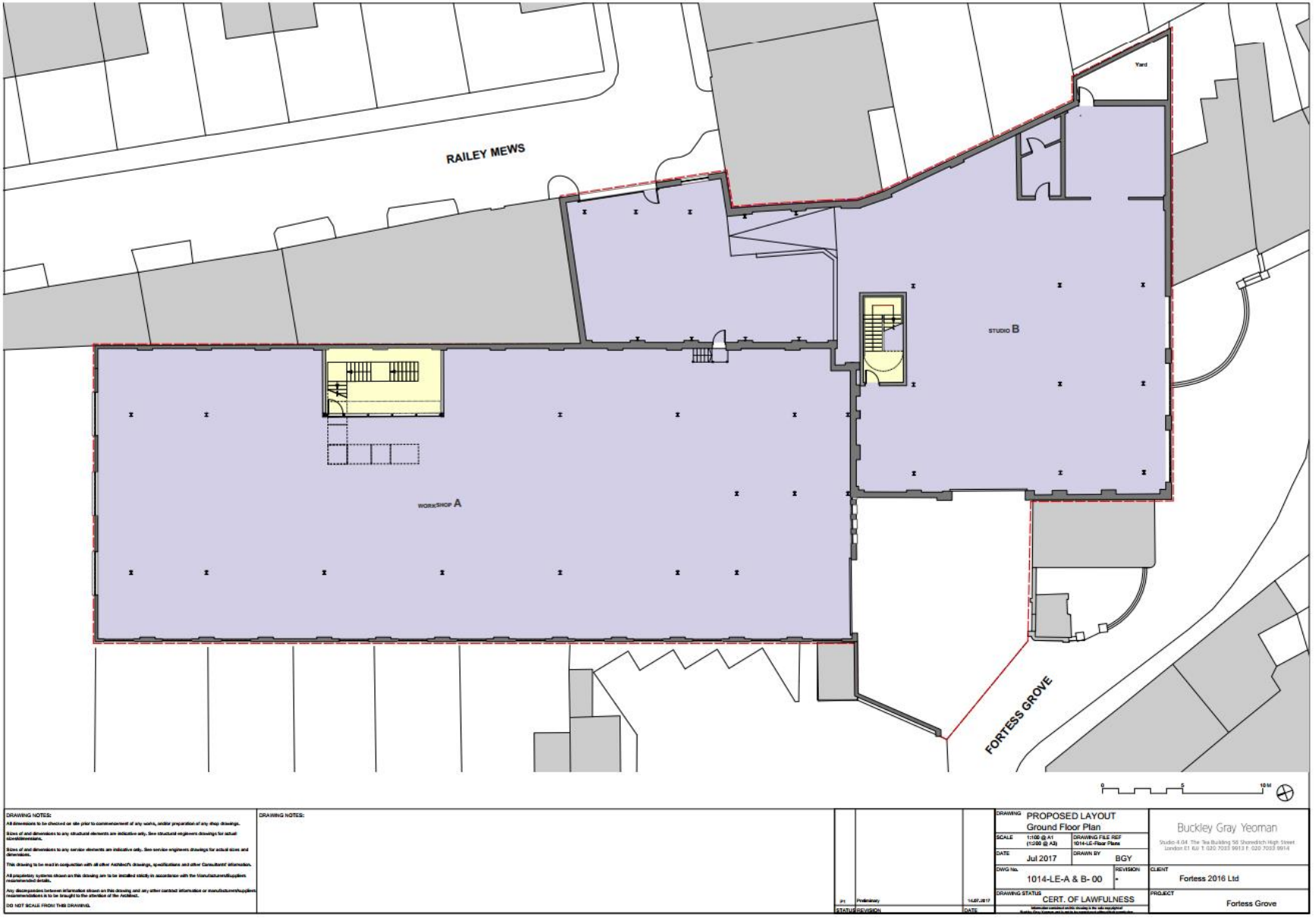
5.0 Bibliography

- British Trust for Ornithology (2016) www.bto.org/about-birds/nnbw/putting-up-a-nest-box
- Collins, J. (ed.) (2012). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 3rd edition, Bat Conservation Trust, London.
- Garland & Markham (2008) Is important bat foraging and commuting habitat legally protected?
- Google Earth (2017).
- Magic database (2017) http://www.magic.gov.uk/MagicMap.aspx
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

Appendix 1: Survey Plan



Appendix 2: Proposed Site Plan



Appendix 3: Legislation and Planning Policy related to bats

LEGAL PROTECTION

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2.

Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species as:

  a) to impair their ability:

  (i) to survive, breed, or reproduce, or to rear or nurture young

  (ii) to hibernate or migrate

  b) to affect significantly the local distribution or abundance of the species

- Damage or destruction of a breeding site or resting place

Bats are also protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale

Effect on development works:

A European Protected Species Mitigation (EPSM) Licence issued by the relevant statutory authority (e.g. Natural England) will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored.

The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008)

NATIONAL PLANNING POLICY (ENGLAND)

National Planning Policy Framework

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as UK Biodiversity Action Plan priority species) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

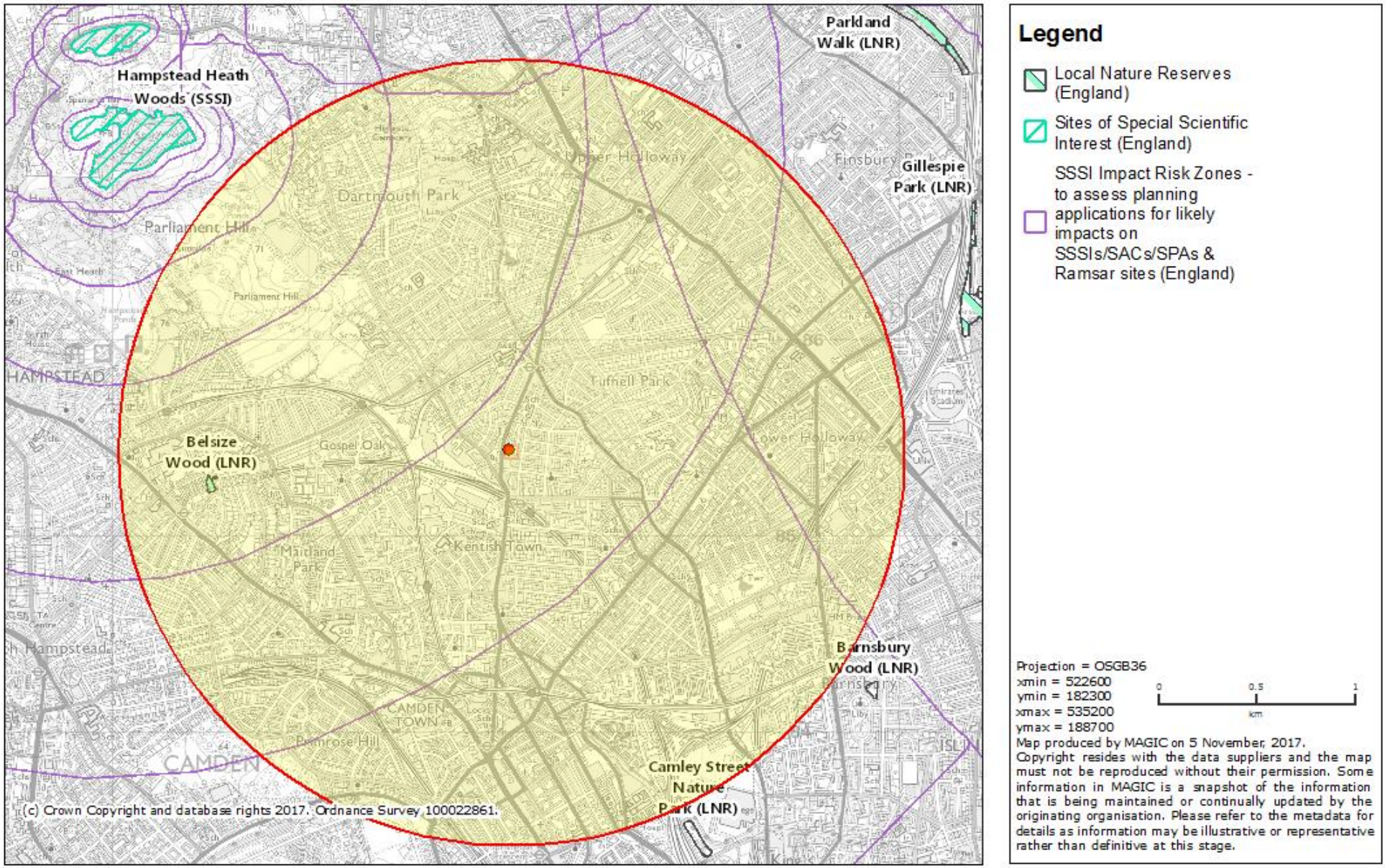
The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act, 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

Appendix 4: Desk Study Information

Statutory sites



Legend

- Local Nature Reserves (England)
- Sites of Special Scientific Interest (England)
- SSSI Impact Risk Zones - to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)

Projection = OSGB36
xmin = 522600
ymin = 182300
xmax = 535200
ymax = 188700

0 0.5 1
km

Map produced by MAGIC on 5 November, 2017.
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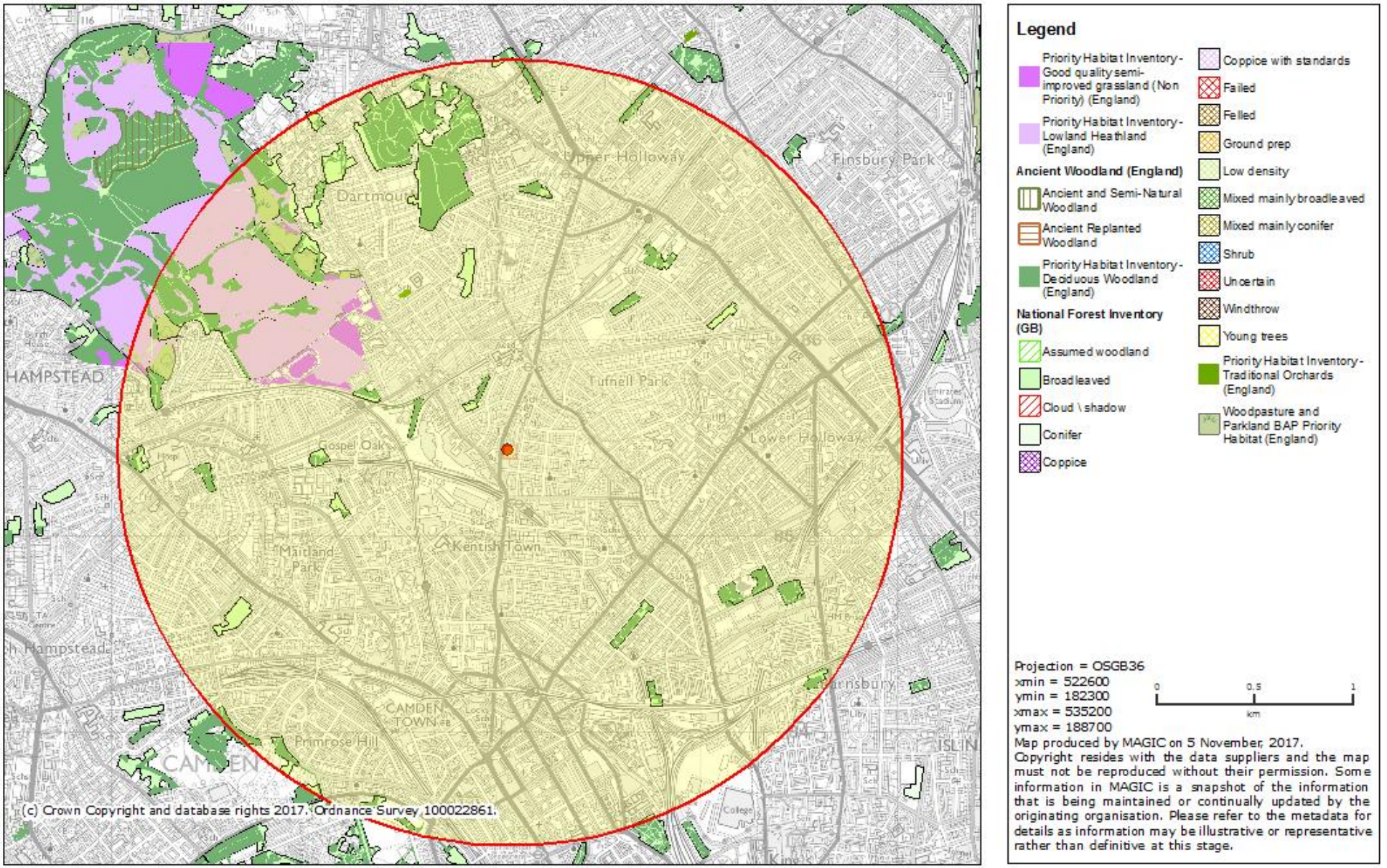
Habitats


Legend
Priority Habitat Inventory - Good quality semi-improved grassland (Non Priority) (England)
Priority Habitat Inventory - Lowland Heathland (England)
Ancient Woodland (England)
Ancient and Semi-Natural Woodland
Ancient Replanted Woodland
Priority Habitat Inventory - Deciduous Woodland (England)
National Forest Inventory (GB)
Assumed woodland
Broadleaved
Cloud \ shadow
Conifer
Coppice
Coppice with standards
Failed
Felled
Ground prep
Low density
Mixed mainly broadleaved
Mixed mainly conifer
Shrub
Uncertain
Windthrow
Young trees
Priority Habitat Inventory - Traditional Orchards (England)
Woodpasture and Parkland BAP Priority Habitat (England)
Projection = OSGB36
xmin = 522600
ymin = 182300
xmax = 535200
ymax = 188700
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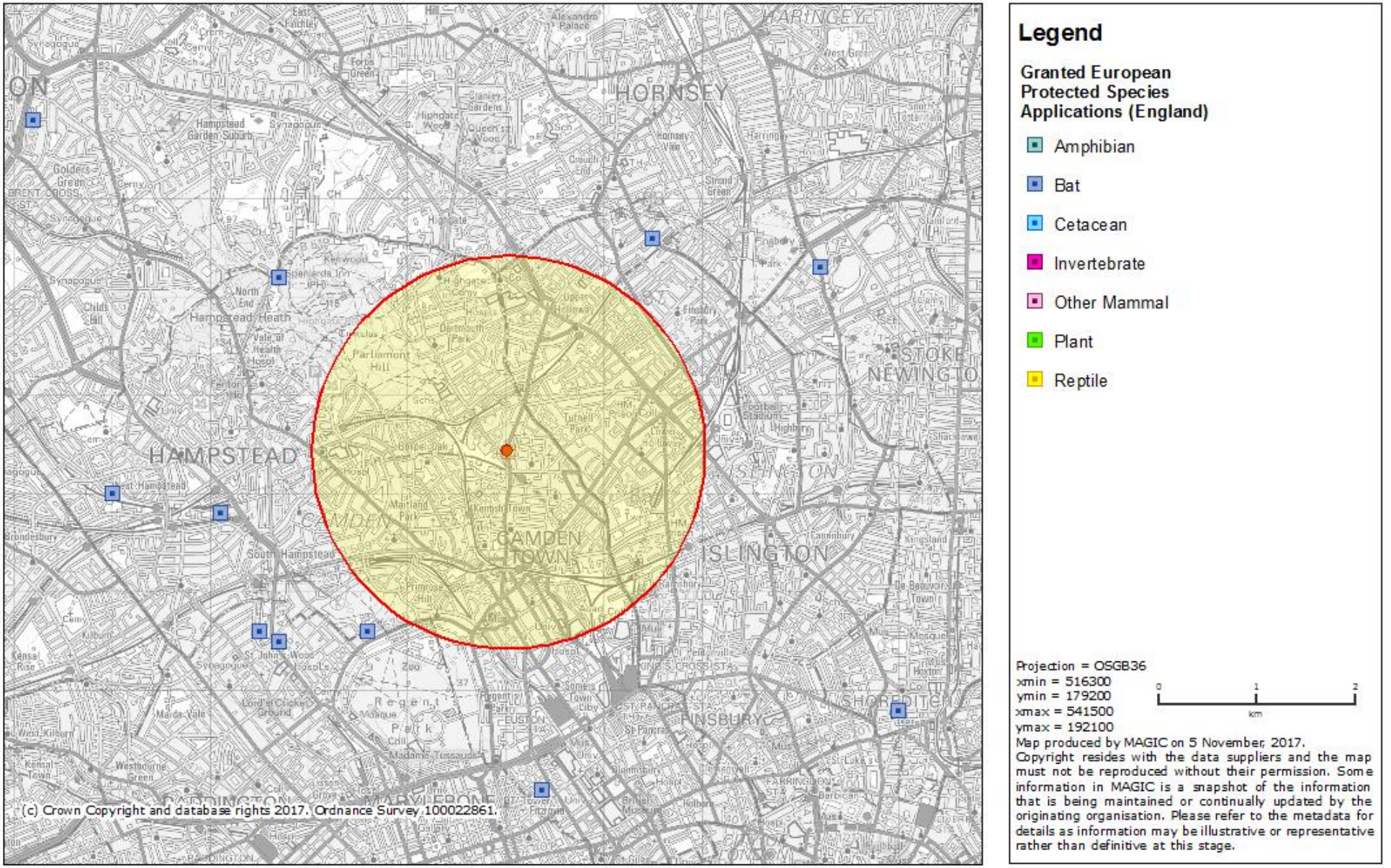
HAMPSTEAD
Dartmouth
Upper Holloway
Finsbury Park
Tufnell Park
Lower Holloway
Gospel Oak
Kentish Town
Maitland Park
Hampstead
CAMDEN TOWN
Primrose Hill
CAMDEN
ISLIN

EPSMLs


HARINGEY
HORNSEY
HAMPSTEAD
CAMDEN TOWN
ISLINGTON
STOKE NEWINGTO
SHOREDITCH
FINSBURY
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Granted European Protected Species Applications (England)
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