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## **Bat Inspection Survey**

Hylands Road, Walthamstow

Site	Hylands Road, Walthamstow, London
Project number	86519
Client name / Address	London Borough of Waltham Forest Waltham Forest Town Hall, Forest Rd, London, E17 4JF

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### Declaration of compliance

This Bat Inspection Survey has been undertaken in accordance with British Standard 42020:2013 "Biodiversity, Code of practice for planning and development".

The information which we have provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

### Validity of data

For sites that require a European Protected Species Licence in respect of bats, the licensing authority in England (Natural England) will expect data from the most recent survey season. Where absence of roosting bats is indicated, the data within this report will be valid for a period of 24 months.

# CONTENTS

<b>1. EXECUTIVE SUMMARY .....</b>	<b>3</b>
<b>2. INTRODUCTION .....</b>	<b>4</b>
2.1. Aims and scope of the report.....	4
2.2. Site description and context .....	4
2.3. Proposed development.....	5
2.4. Legislation and planning policy.....	5
<b>3. METHODOLOGY .....</b>	<b>6</b>
3.1. Daytime bat inspection survey.....	6
3.2. Equipment.....	7
3.3. Surveyors.....	7
3.4. Date, time and weather conditions .....	7
3.5. Constraints.....	8
<b>4. RESULTS .....</b>	<b>9</b>
4.1. Daytime bat inspection survey.....	9
4.2. Results summary .....	11
<b>5. EVALUATION AND RECOMMENDATIONS.....</b>	<b>12</b>
5.1. Evaluation .....	12
5.2. Ecological impacts in absence of mitigation .....	12
5.3. Recommendations / required actions .....	12
<b>6. CONCLUSIONS .....</b>	<b>14</b>
<b>7. REFERENCES .....</b>	<b>15</b>
<b>8. APPENDICES.....</b>	<b>16</b>
Appendix 1: Site maps.....	16
Appendix 2: Relevant wildlife legislation and planning policy .....	19
Appendix 3: Site photographs .....	22

## 1. EXECUTIVE SUMMARY

In July 2019 MKA Ecology Ltd was commissioned to undertake a daytime bat inspection survey of Hylands Road, Walthamstow. A site visit was undertaken on 19 July 2019.

The site comprises residential buildings, amenity grassland and scattered trees. The proposed development involves residential re-development, including the demolition of buildings and vegetated habitats followed by the creation of new buildings.

The purpose of the survey was to identify bat roosts or bat roost suitability associated with the development site, evaluate likely ecological impacts, assess requirements for further survey work, and describe likely mitigation and/or habitat enhancement requirements. The survey comprised an internal and external inspection of the buildings.

The inspected buildings contained no evidence of bat roosts, but the missing tiles, gaps under hanging tiles presented some suitability for crevice-dwelling bat species. As such the buildings were considered to have low suitability for roosting bats.

Following best practice guidelines, it is recommended a single nocturnal bat survey is undertaken to confirm the presence or likely absence of roosting bats at the site. Furthermore a sensitive lighting scheme should be utilised post-development to allow the site to continue to be used by roosting and foraging bats. In line with the National Planning Policy, ecological enhancements with respect to bats such as bat box provisions will be recommended following the nocturnal survey effort.

## 2. INTRODUCTION

### 2.1. Aims and scope of the report

In July 2019 MKA Ecology Ltd was commissioned to undertake a daytime bat inspection survey of Hylands Road in Walthamstow by London Borough of Waltham Forest in order to support a planning application for residential re-development. The aims of the daytime bat inspection survey were to:

- Undertake a daytime inspection survey to establish the suitability of the buildings at the site for roosting bats, and record any evidence of bat presence;
- Identify likely ecological impacts relating to the proposed development/planned work;
- Assess the need for further survey effort, a European Protected Species Licence or mitigation, if required; and
- Propose any suitable habitat enhancements for bat species, if required.

This report must be read in conjunction with the Preliminary Ecological Appraisal (MKA Ecology Ltd, 2019). With respect to bats, this report supersedes the previous findings and recommendations.

### 2.2. Site description and context

Hylands Road is situated in Walthamstow in Greater London (centred on TQ 38896 90123) and falls under the Local Authority of London Borough of Waltham Forest. The site comprises mainly of residential buildings, amenity grassland and scattered trees. The site covers a total of 0.5 ha. The site location is shown on Figure 1, Appendix 1.

The wider landscape is a mosaic of urban development, with residential buildings, gardens and roads, and large expanses of mixed woodland. The landscape is characterised by acid grassland, wood pasture, a large amount of open spaces and amenity land with public access, as well as a prevalence of ancient woodland. Notably, there is a large amount of standing water, e.g. lakes, reservoirs and ponds, such as Walthamstow Wetlands which provide high quality foraging habitat for bats.

There is a limited amount of habitat corridors in the wider landscape, largely due to urban development and roads such as the A503, resulting in the area being relatively fragmented. However, Epping Forest provides good north/south connecting habitat and a habitat corridor close to Hyland Road, Walthamstow.

### 2.3. Proposed development

The proposed development involves residential re-development, including the demolition of existing buildings, removal of vegetated habitat and creation of new buildings.

### 2.4. Legislation and planning policy

This daytime bat inspection survey has been undertaken with reference to relevant wildlife legislation and planning policy. Relevant legislation considered within the scope of this document comprised the following:

- The Conservation of Habitats and Species Regulations 2017 (as amended);
- The Wildlife and Countryside Act 1981 (as amended); and
- The Natural Environment and Rural Communities (NERC) Act 2006.

Further information is provided in Appendix 2.

In addition to obligations under wildlife legislation, the revised National Planning Policy Framework (NPPF), updated in 2019, requires planning decisions to act towards conserving and enhancing the local environment. Further details are provided in Appendix 2.

The Waltham Forest Borough Council has produced an adopted Local Plan which covers a number of policies relating to biodiversity and habitat conservation, including encouraging the planting of new trees as well as protecting biodiversity, enhancing green infrastructure, and promoting native planting. The Waltham Forest Borough Council Biodiversity Action Plan (BAP), considers all bat species as Priority Species. Furthermore, pipistrelle bats *Pipistrellus sp.* are considered a flagship species for the Borough.

## 3. METHODOLOGY

### 3.1. Daytime bat inspection survey

The site contained six buildings which were numbered and shown in Figure 2, Appendix 1. Several trees were present on site, however these were either immature or semi-mature and did not contain any features suitable for roosting bats. An internal and external inspection of the buildings at the site was undertaken following guidance set out in *Bat Surveys for Professional Ecologists – Good Practice Guidelines (3<sup>rd</sup> edition)* (Collins, 2016) and *Bat Workers' Manual (3<sup>rd</sup> edition)* (Mitchell-Jones and McLeish, 2004).

The following features were recorded for buildings:

- Location;
- Type;
- Dimensions;
- Age;
- Construction materials; and
- Current use.

Descriptions of potential and actual access points and roosting places were recorded (including height above ground level and aspect), as well as descriptions of evidence of bats found. The following types of evidence of use by bats were recorded:

- Location and number of any live bats;
- Location and number of any bat corpses or skeletons;
- Locations and number of bat droppings;
- Notes on relative freshness, shape and size of bat droppings;
- Location and quantity of any bat feeding remains;
- Location of clean, cobweb-free timbers, crevices and holes;
- Location of characteristic staining from urine and/or grease marks;
- Location and quantity of bat-fly (*Nycteribiidae*) pupal cases;
- Location of known and potential access points to the roost; and
- Location of the characteristic smell of bats.

Buildings were assessed for their bat roost suitability according to the scheme presented in Collins (2016). These categories are shown in Table 1.

**Table 1: Categories to assess roost suitability in buildings and trees (adapted from Collins, 2016)**

Roost suitability	Description
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions* and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potential for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

\*For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

### 3.2. Equipment

The inspection was conducted using a variety of equipment including ladders, digital video endoscope, inspection mirrors, high-powered torch and a digital camera.

### 3.3. Surveyors

The site survey was undertaken by Charlotte Brennan, sub-contractor for MKA Ecology Ltd and Felix Bird GradCIEEM, Graduate Ecologist at MKA Ecology Ltd. Charlotte Brennan has over five years' experience undertaking commercial bat surveys and holds a Natural England Class 2 bat licence. Felix has one year's experience undertaking commercial bat surveys and was assisting with the survey.

The report has been reviewed by Will O'Connor MCIEEM, Director and Principal Ecologist at MKA Ecology Ltd. Will has over ten years' experience as a consultant ecologist and holds a Natural England Class 2 bat licence.

### 3.4. Date, time and weather conditions

See Table 2 below for details of the date, time and prevailing weather conditions recorded during the site visit.



**Table 2: Date, time and weather conditions of survey visit**

Date	Time of survey	Weather conditions*
19/07/2019	12:00	Wind: 2N Cloud: 8/8 Temp: 18°C Rain: Moderate, occasionally heavy

\*Wind as per Beaufort Scale / Cloud cover given in Oktas.

### 3.5. Constraints

It should be noted that a single visit cannot categorically ascertain the absence of bats. However, an assessment is made of the likelihood for protected species to occur based on habitat characteristics and the ecology of each species. Where there is suitable habitat for bats, additional survey work may be required to ascertain their presence or absence.

Due to a lack of access, it was not possible to inspect the internal roof space of Building 4 or 5. Some small external features were present and so a single nocturnal survey has been recommended to determine the presence or absence of bats using these buildings.

A section of Building 3 was fire damaged and there was no information regarding the structural integrity of the interior. It was considered to be unsafe to complete an internal inspection of the survey. The building was considered to have low suitability to support roosting bats and a single nocturnal survey will be used to confirm the presence or absence of bats using these buildings.

## 4. RESULTS

### 4.1. Daytime bat inspection survey

The survey results are displayed in Figure 3, Appendix 1 and in Table 3 below.

**Table 3: Inspected buildings**

Building	Roost suitability	Description	Bat roost evidence and potential
Building 1	Negligible	A small brick built building with a single-pitch corrugated metal roof	No evidence of bats or potential access points.
Building 2	Low	<p>A brick built residential three-storey building with a pebble-dash façade. The slate-tiled roof was dual-pitch with gable ends.</p> <p>See Photograph 1 and Photograph 2, Appendix 3</p>	<p>No live bat or corpses of bats were identified during the survey effort.</p> <p>No evidence of roosting bas was identified during the survey, no droppings, urine stains or feeding remains were found.</p> <p>Gaps in the gable ends where there was missing mortar offered potential access and roosting points.</p>
Building 3	Low	<p>A brick built residential two-storey building with a pebble-dash façade. The slate-tiled roof was dual-pitch with gable ends. Dual-pitch dormer roofs were present with gable ends covered with hanging tiles.</p> <p>A section of the building was fire-damaged and a large hole in the roof was present.</p> <p>Fire curtains were present within the attic, as well as large amounts of insulation.</p>	<p>No live bat or corpses of bats were identified during the survey effort.</p> <p>No evidence of roosting bas was identified during the survey, no droppings, urine stains or feeding remains were found.</p> <p>The large hole through the roof offered a potential access point.</p> <p>There were also missing tiles present offering potential roosting opportunities.</p>

Building	Roost suitability	Description	Bat roost evidence and potential
		See Photograph 3 and Photograph 4, Appendix 3.	
Building 4	Low	A derelict brick-built single-storey garage block with a flat metal corrugated roof. The roof was overgrown by moss <i>Moss sp.</i> and ivy <i>Hedera helix</i> .	<p>No live bat or corpses of bats were identified during the survey effort.</p> <p>No evidence of roosting bas was identified during the survey, no droppings, urine stains or feeding remains were found.</p> <p>Gaps were present around the door frames allowing access into the garages.</p>
Building 5	Low	<p>A brick built residential two-storey building with a pebble-dash façade. The slate-tiled roof was dual-pitch with gable ends. Dual-pitch dormer roofs were present with gable ends covered with hanging tiles.</p> <p>See Photograph 5 and Photograph 6, Appendix 3.</p>	<p>No live bat or corpses of bats were identified during the survey effort.</p> <p>No evidence of roosting bats was identified during the survey, no droppings, urine stains or feeding remains were found.</p> <p>Missing tiles offer potential roosting opportunities and access points.</p>
Building 6	Low	<p>A brick built residential two-storey building with a pebble-dash façade. The slate-tiled roof was dual-pitch with gable ends. It was connected to a single-storey disused brick-built community centre with a felt roof.</p> <p>See Photograph 7, Appendix 3.</p>	<p>No live bat or corpses of bats were identified during the survey effort.</p> <p>No evidence of roosting bas was identified during the survey, no droppings, urine stains or feeding remains were found.</p> <p>A gap in the brickwork and gaps under the hanging tiles provided</p>

Building	Roost suitability	Description	Bat roost evidence and potential
			potential access and roosting points.

#### 4.2. Results summary

Photographs taken at Site during the daytime bat inspection are provided in Appendix 3. No direct evidence of bats was observed, however, the buildings contained several small features with potential to support roosting bats. The loft spaces showed no sign of bats and the presence of cobwebs in many locations both inside and outside suggest that bats are not using certain features. Any roost present is likely to be of single or small groups of opportunistic crevice-dwelling species such as pipistrelle bats.

## 5. EVALUATION AND RECOMMENDATIONS

The following evaluation and recommendations are based on the daytime bat inspection survey carried out on 19 July 2019.

### 5.1. Evaluation

Although no direct evidence of bats was found, Buildings 2,3,4,5 and 6 all contained suitable access and roosting features and the presence of roosting bats could not be ruled out. They are considered to have a low likelihood of supporting a bat roost.

### 5.2. Ecological impacts in absence of mitigation

Demolition or modification of the buildings could lead to the loss, damage or modification of bat roosts, or injury or death to individual bats. All British bats are listed on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 and Schedule 5 of The Wildlife and Countryside Act 1981 (as amended). This legislation makes it an offence to deliberately capture, injure, kill or deliberately disturb a bat, or damage or destroy a bat roost.

### 5.3. Recommendations / required actions

In order to confirm the presence or likely absence of bats, further nocturnal bat surveys are required, to fully assess the impacts of the proposed development on bats. If bat roosts are present, the surveys will determine the species, population size, type of roost and establish how bats are using the structures. Best-practice guidelines (Collins, 2016) recommend that one nocturnal survey is conducted at buildings with low risk. Nocturnal bat surveys must be conducted during May to August inclusive.

#### Recommendation 1

Undertake a single nocturnal bat survey of the buildings at Hylands Road, Walthamstow.

To ensure the site and the wider area remains suitable for foraging and commuting bats, a sensitive lighting scheme should be incorporated into the final site design. The guidance provided by the Institute of Lighting Professionals (2018) provides suitable designs of downward facing lighting and examples of cowls on lights. Areas of greater bat activity, which require lower lighting, should be identified during the nocturnal bat survey.

#### Recommendation 2

Incorporate a sensitive lighting scheme into the final site design.

Following the issue of the National Planning Policy Framework (NPPF, see Appendix 2, all planning decisions should aim to maintain, and enhance, restore or add to biodiversity conservation interests. To provide improved provisions for roosting bats on site, it is recommended that bat boxes are included within the design scheme. The specifications of these boxes should be informed following the nocturnal bat survey effort.

### *Summary of recommendations*

Table 4 below gives the summary of further work required, and the stage of the development at which the work should be undertaken.

**Table 4: Summary of further work required**

Species	Pre-planning action required?	Pre-construction action required?	Construction phase mitigation required?	Enhancements proposed?
Bats	Yes – nocturnal bat surveys	TBC	TBC	TBC

## 6. CONCLUSIONS

A bat inspection survey was conducted at Hylands Road, Walthamstow on 19 July 2019 by MKA Ecology Ltd.

Buildings 2,3,4,5 and 6 contain features which have the potential to support roosting bats. No evidence of any significant roosts was found and it is likely any roosts present would consist of individual bats, likely pipistrelle or brown-long eared bats. As these buildings are predicted to be impacted during the re-development, it is recommended that a single nocturnal roost emergence/re-entry survey is completed on each of these buildings.

The nocturnal survey effort will confirm presence or absence of bat roosts, the species roosting at the Site (if present), confirm access points, population sizes and also further information on how the roosting bats are using the buildings.

In line with the National Planning Policy Framework and to achieve local priorities, enhanced provisions for bats should be included within the post-development design. The exact specifications will be informed by the results of the nocturnal survey.

## 7. REFERENCES

British Standards Institution (2013) *British Standard 42020:2013, Biodiversity – Code of practice for planning and development*. British Standards Institution: London.

Chartered Institute of Ecology and Environmental Management (2019) *Code of Professional Conduct*.

Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists – Good Practice Guidelines (3<sup>rd</sup> edition)*. Bat Conservation Trust: London.

Institute of Lighting Professionals (2011) *Guidance Notes for the Reduction of Obtrusive Light*. Available at: <https://www.theilp.org.uk/documents/obtrusive-light/>

MKA Ecology Ltd. (2019) *Hylands Road, Walthamstow. Preliminary Ecological Appraisal*. MKA Ecology: Cambridge.

Mitchell-Jones, A.J. & McLeish, A.P. (2004) *Bat Workers' Manual (3<sup>rd</sup> edition)*. Joint Nature Conservation Committee: Peterborough.



## 8. APPENDICES

### Appendix 1: Site maps

Figure 1: Site location

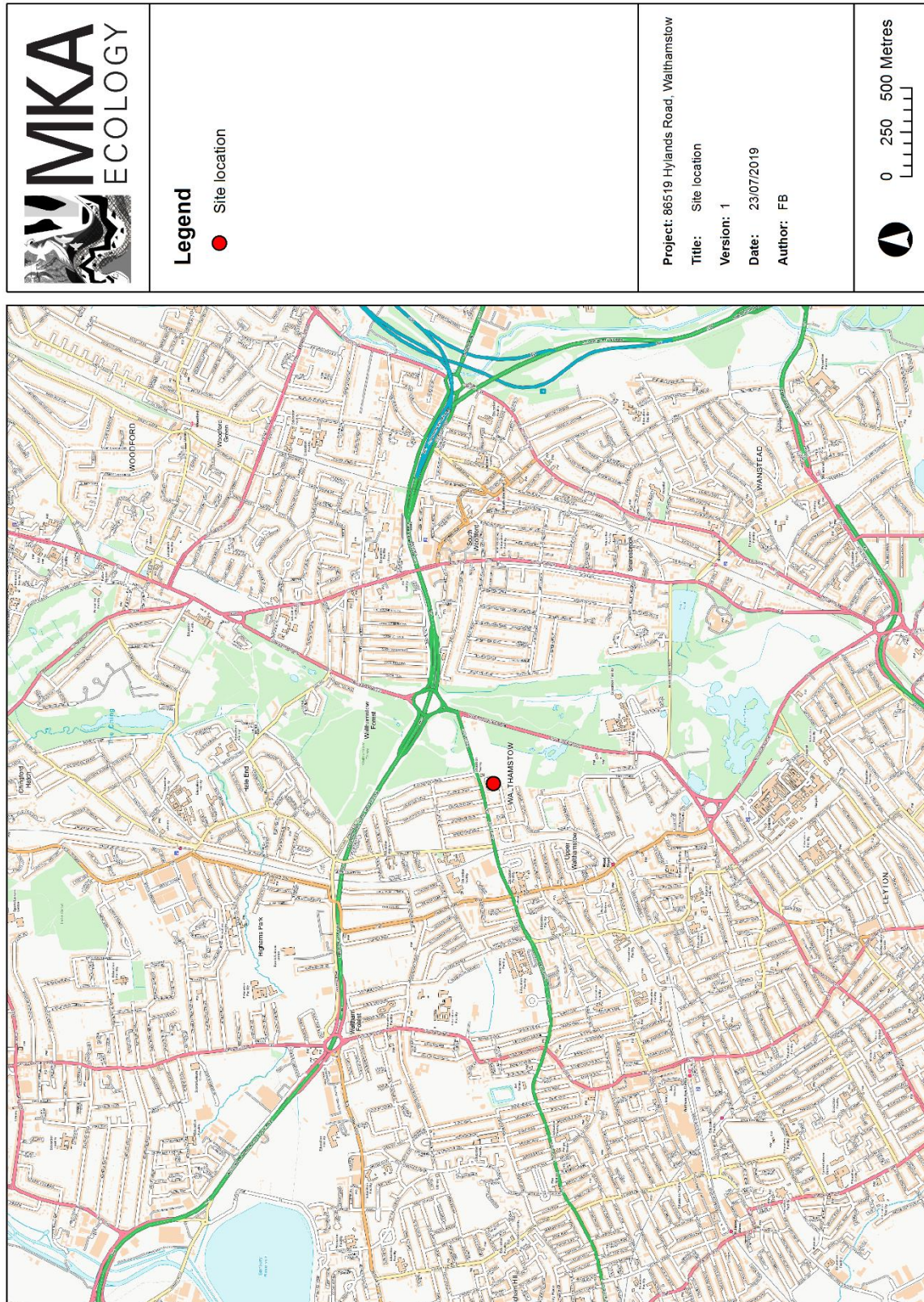




Figure 2: Survey area

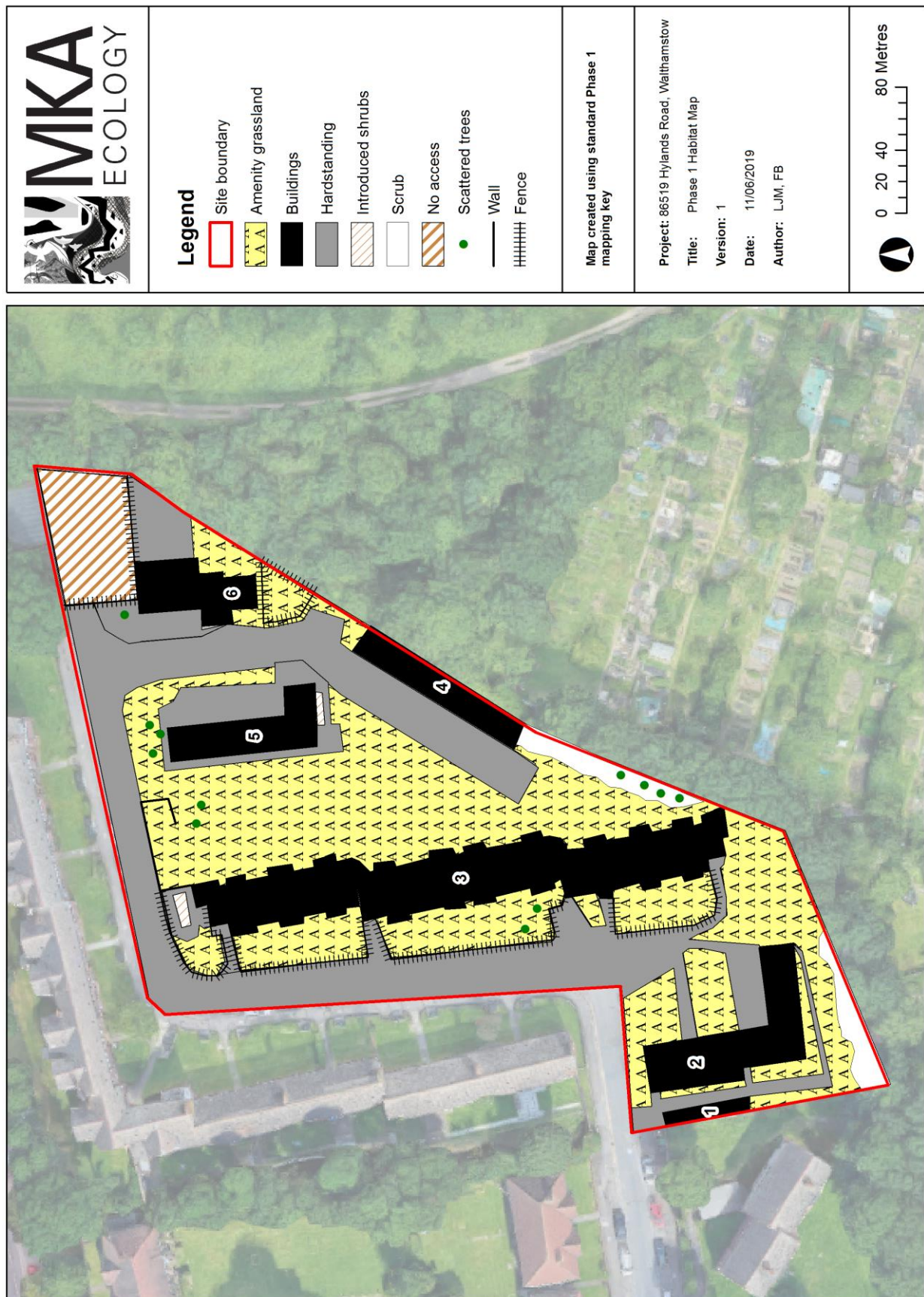
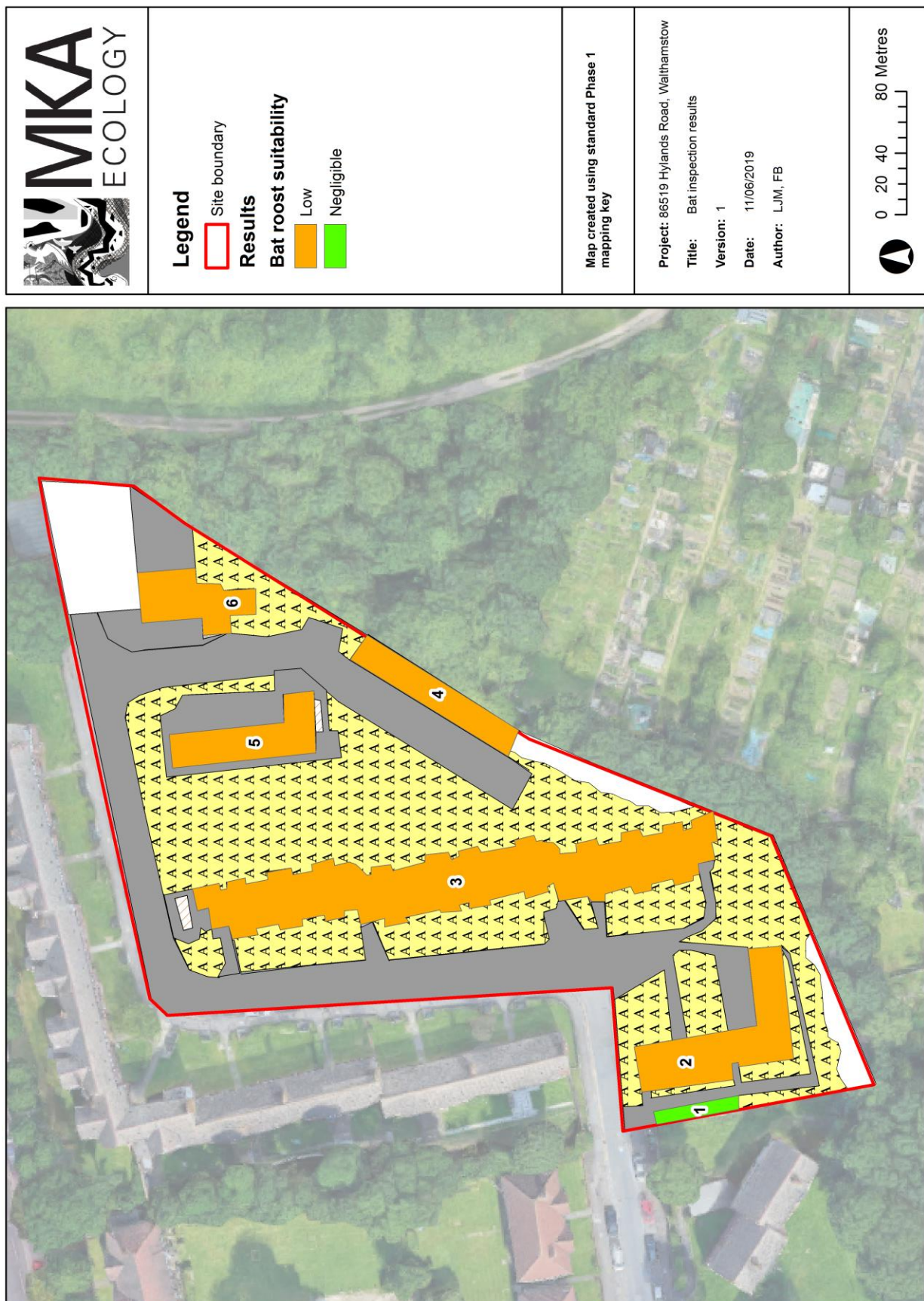




Figure 3: Survey results



## Appendix 2: Relevant wildlife legislation and planning policy

Please note that the following is not an exhaustive list, and is solely intended to cover the most relevant legislation pertaining to species commonly associated with development sites.

Subject	Legislation (England)	Relevant criminal offences
Bats (all species)	<p>The Conservation of Habitats and Species Regulations 2010 (as amended)</p> <p>All bat species are listed on Schedule 2, which designates them as European Protected Species. European Protected Species are subject to the provisions of Part 3, Regulation 41 (Protection of certain wild animals).</p>	<ul style="list-style-type: none"> <li>• Deliberate capture, injury or killing of a bat;</li> <li>• Deliberate disturbance of a bat;</li> <li>• Damage or destruction of a bat roost;</li> <li>• To possess, control, transport, sell or exchange, or to offer for sale or exchange, any live or dead bat or part of a bat, or anything derived from a bat or any part of a bat.</li> </ul> <p><b>Notes</b></p> <p>In this interpretation, a bat roost is “a <i>breeding site or resting place of a bat</i>”.</p> <p>Because bats tend to reuse the same roosts, bat roosts are considered to be protected whether or not the bats are present at the time.</p> <p>In this interpretation, disturbance of animals includes <i>in particular</i> any disturbance which is likely –</p> <p>(a) to impair their ability:</p> <ul style="list-style-type: none"> <li>• to survive, to breed or reproduce, or to rear or nurture their young, or</li> <li>• in the case of animals of a hibernating or migratory species, to hibernate or migrate; or</li> </ul> <p>(b) to affect significantly the local distribution or abundance of the species to which they belong.</p>

Subject	Legislation (England)	Relevant criminal offences
	<p>Wildlife and Countryside Act 1981 (as amended)</p> <p>All bat species are listed on Schedule 5 and are therefore subject to parts of the provisions of Section 9 (Sections 9(4)(b) and (c) and Section 9(5)).</p>	<ul style="list-style-type: none"> <li>• Intentional or reckless disturbance of a bat while it is occupying a roost;</li> <li>• Intentional or reckless obstruction of access to a roost;</li> <li>• To sell, expose for sale, possess or transport for the purpose of sale, any live or dead bat or any part of, or anything derived from a bat; or</li> <li>• Publishing or causing to be published any advertisement likely to be understood as conveying that an individual buys or sells, or has an intention to buy or sell bats.</li> </ul> <p>In this interpretation, a bat roost is "any structure or place which any wild [bat]...uses for shelter or protection". Because bats tend to reuse the same roosts, bat roosts are considered to be protected whether or not the bats are present at the time.</p>

#### The Wildlife & Countryside Act 1981 (as amended)

Full legislation text available at: <http://www.legislation.gov.uk/ukpga/1981/69>

#### Conservation of Habitats and Species Regulations 2017 (as amended)

Full legislation text available at: <http://www.legislation.gov.uk/ukxi/2017/1012/contents/made>

#### Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006

Full legislation text available at: <http://www.legislation.gov.uk/ukpga/2006/16/contents>

Several bat species are listed as species of principal importance for the purpose of conserving biodiversity under Section 41 of the NERC Act 2006.

The NERC Act 2006 places a legal obligation on public bodies, including those considering planning applications, to maintain, and where possible enhance, the conservation status of any Section 41 species found on a site. Species included on Section 41 were also included on the UK Biodiversity Action Plan (BAP) and remain an integral part of the Post-2010 Biodiversity Framework.

These species are:

- Barbastelle *Barbastella barbastellus*;
- Bechstein's bat *Myotis bechsteinii*;
- Brown long-eared bat *Plecotus auritus*;
- Greater horseshoe bat *Rhinolophus ferrumequinum*;
- Lesser horseshoe bat *Rhinolophus hipposideros*;
- Noctule *Nyctalus noctula*; and
- Soprano pipistrelle *Pipistrellus pygmaeus*.

### National Planning Policy Framework (NPPF)

Full text is available at: <https://www.gov.uk/government/collections/revised-national-planning-policy-framework>

The revised NPPF was updated on 19 February 2019 setting out the Government's planning policies for England and the process by which these should be applied. The policies within the NPPF are a material consideration in the planning process. The key principle of the NPPF is a presumption in favour of sustainable development, with sustainable development defined as a balance between economic, social and environmental needs.

Policies 170 to 183 of the NPPF address conserving and enhancing the natural environment, stating that the planning system should:

- Contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes;
- Recognise the wider benefits of ecosystem services; and
- Minimise impacts on biodiversity and provide net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity.

Furthermore there is a focus on re-use of existing brownfield sites or sites of low environmental value as a priority, and discouraging development in National Parks, Sites of Specific Scientific Interest, the Broads or Areas of Outstanding Natural Beauty other than in exceptional circumstances.

Where possible, planning policies should also

“Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity”.



### Appendix 3: Site photographs

**Photograph 1: Building 2 (southern aspect)**



**Photograph 2: Building 2 (eastern aspect)**



**Photograph 3: Building 3 (western aspect)**



**Photograph 4: Building 3 (fire-damaged section)**





**Photograph 5: Building 5 (eastern aspect)**



**Photograph 6: Building 5 (eastern aspect continued)**



**Photograph 7: Building 6 (eastern aspect)**





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