APPENDIX 8.2: BAT EMERGENCE SURVEY REPORT

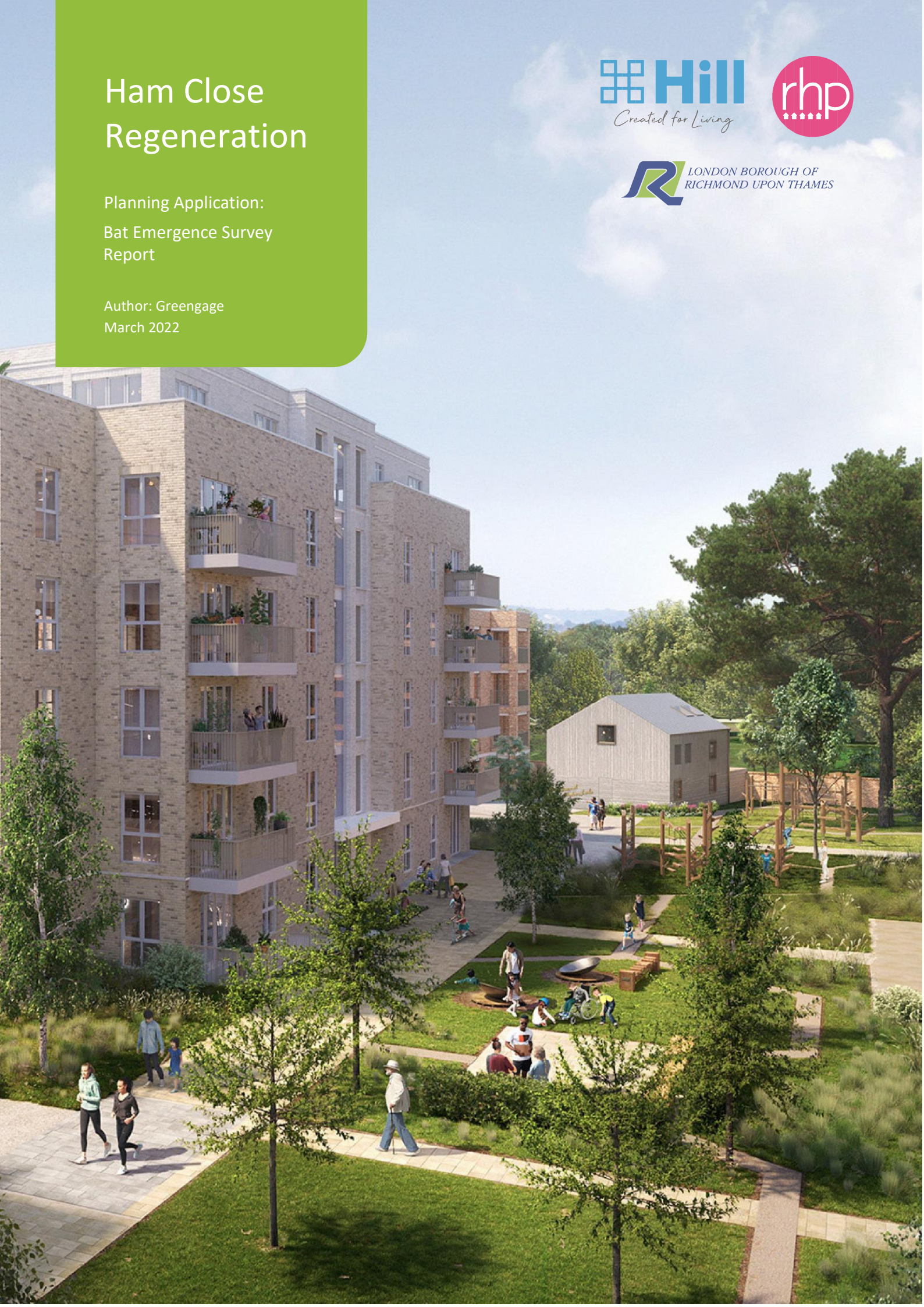
Ham Close Regeneration

Planning Application:

Bat Emergence Survey Report

Author: Greengage

March 2022



QA

Ham Close–Bat Survey Report

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Comments:		
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CONTENTS

1.0 EXECUTIVE SUMMARY

1.1 Greengage Environmental Ltd was commissioned by Hill Residential to undertake a bat survey at a site known as Ham Close within the London Borough of Richmond upon Thames. The aim of the survey (emergence / re-entry) was to determine the presence / likely absence of roosting bats.

1.2 This document is a report of this survey and has been produced to support a planning submission for the site which seeks:

"Demolition of existing buildings on-site and phased mixed-use development comprising 452 residential homes (Class C3) up to six storeys; a Community/Leisure Facility (Class F2) of up to 3 storeys in height, a "Maker Labs" (sui generis) of up to 2 storeys together with basement car parking and site wide landscaping."

1.3 A detailed systematic daytime external inspection of the buildings and trees on site, undertaken on 8th and 14th of September, noted low potential value for roosting bats in the buildings on site.

1.4 Low levels of commuting and foraging were recorded on site during the emergence / re-entry survey but no roosting behaviour. Bat species recorded were largely common pipistrelle (*Pipistrellus pipistrelles*) and soprano pipistrelle (*Pipistrellus pygmaeus*) with a single noctule (*Nyctalus noctule*) pass. During the survey, high levels of existing artificial lighting were noted including security lighting on the eastern façade of the existing Youth Centre building that faces Ham Village Green.

1.5 Given the bat activity recorded, and existing levels of lighting on site, the impact of the proposed development upon local bat populations is expected to be negligible. In accordance with planning policy and good practice, a number of recommendations are made which have potential to enhance the value of the site for bats:

- Incorporation of areas of biodiverse green roof;
- Wildlife-friendly landscaping;
- Inclusion of bat boxes within the newly constructed buildings/existing trees to provide bat roosting opportunities at the site; and
- Implementation of wildlife sensitive lighting scheme.

1.6 These surveys have a lifespan of 12 - 18 months; accordingly, if buildings have not been demolished in this time it may be appropriate to undertake updated surveys to determine up to date baselines.

2.0 INTRODUCTION

2.1 Greengage Environmental Ltd was commissioned by Hill Residential to undertake a bat survey at a site known as Ham Close within the London Borough of Richmond upon Thames. The aim of the survey (emergence/re-entry) was to determine the presence / likely absence of roosting bats.

2.2 This document is a report of this survey and has been produced to support a planning submission for the site which seeks:

"Demolition of existing buildings on-site and phased mixed-use development comprising 452 residential homes (Class C3) up to six storeys; a Community/Leisure Facility (Class F2) of up to 3 storeys in height, a "Maker Labs" (sui generis) of up to 2 storeys together with basement car parking and site wide landscaping."

AIMS OF SURVEY

2.3 The purpose of the survey was to further determine if there are any features or habitats on site that could potentially support bats, and to determine whether any bats are roosting in the buildings at the site. The surveys aimed to:

- Determine the presence/absence of bat species;
- Determine the type of activity, most usually
    - Roosting;
    - foraging (by feeding buzzes); or
    - commuting (by high directional pass rates); and

2.4 By using a collation of existing data for the area to support the survey, it is possible to determine the presence/likely-absence of roosting bats across the site. This information can then be used to determine the form and extent of any mitigation, compensation or enhancement that may be appropriate.

SITE CONTEXT

Site Description

2.5 The assessment site covers an area of approximately 4.68 hectares (ha) and is centred on National Grid Reference TQ 0030585, OS Co-ordinates 550309, 158566.

2.6 The site comprises existing residential buildings arranged in five storey blocks, four storey deck access flats and three storey 'T' shaped blocks. The public realm consists of large areas of surface parking and amenity grassland with scattered trees. The Youth

Centre and associated car park occupies a central location on the site. Ham Village Green sits at the eastern edge of the site.

2.7 The site is bound by Woodville Road to the north, Wiggins Lane and Ham Street to the east, Ham Clinic and Ashburnham Road to the south and St Richard's C of E Primary School playing fields and the children's garden pre-school to the west.

Desk Based Assessment

2.8 Biological records were analysed to determine the records of bat species in the local area. Records were obtained from Greenspace Information for Greater London (GiGL) which confirmed the presence of the following bat species within a 2km radius of the site:

- Common pipistrelle (*Pipistrellus pipistrelles*);
- Soprano pipistrelle (*Pipistrellus pygmaeus*);
- Nathusius's pipistrelle (*Pipistrellus nathusii*);
- Noctule (*Nyctalus noctule*);
- Leisler's (*Nyctalus leisleri*);
- Natterers (*Myotis nattereri*);
- Whiskered/Brandt's (*Myotis mystacinus/brandtii*);
- Daubenton's (*Myotis daubentonii*);
- Brown long-eared (*Plecotus auritus*); and
- Serotine (*Eptesicus serotinus*).

Scoping

2.9 A detailed systematic daytime external inspection of the buildings on site, undertaken on 8th and 14th of September. No internal roof voids were identified for inspection.

2.10 During the preliminary ecological appraisal (Report ref: 551842JB07OCT21FV01_PEA), a number of features of potential value for bats were noted. These included the following:

- Possible gaps under fascia, with no wire mesh visible.
- Missing roof tile.

2.11 The visual assessment of the trees and buildings on-site for suitability of roosting habitats entailed checking for bat signs, including the presence of droppings, urine staining, grease marks and signs of food remnants such as moth and butterfly wings.

2.12 In accordance with the *Bat Conservation Trust (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines*[1] and the *Bat Workers Manual (2004)*[2], for the reasons listed above and given the legal protection afforded to bats (see Appendix 1), the requirement for one emergence/re-entry survey per surveyor location was confirmed in order to establish the relative importance of the site for local bat populations.

2.13 The potential access points, roost locations, foraging areas and commuting routes were identified. This information was used to inform the placement of the surveyors during the survey and help further assess the possible implications for bats on site with the proposed redevelopment.

2.14 Surveyor locations and potential roosting features are shown on Figure 1.

3.0 METHODOLOGY

EMERGENCE/RE-ENTRY SURVEY

3.1 The scoping survey identified 16 locations (see Figure 1) across the site that would enable all potential roosting features to be surveyed. Owing to the number of locations these were assessed across four survey visits. Table 3.1 details the weather conditions and surveyor locations assessed across the survey visits.

Table 3.1 Survey details

Date	Weather Conditions	Surveyor Locations / Surveyors	Sunset/Sunrise Time
21/09/21 (PM)	22.5C – 15.5C 5% cloud 1 mph wind	1. Gemma Abela 2. Mitch Cooke 3. James Bumphrey	19.01 (sunset)
23/09/21 (AM)	13C Clear 3 mph wind	4. James Bumphrey	06.48 (sunrise)
23/09/21 (PM)	21.1C – 16.9C 5% cloud 1 mph wind	5. James Bumphrey 6. Gemma Abela 7. Iona Cunningham-Eurich 8. Mitch Cooke 9. Nick Small	18.57 (sunset)
29/09/21 (PM)	15.7C – 11.4C 10% cloud 7 mph wind	10. James Bumphrey 11. Molly Crookshank 12. Laura Suckley 13. Joanne Reynolds 14. Jesse Aberbach 15. Mitch Cooke 16 Gemma Abela	18.43 (sunset)

3.2 The emergence / re-entry survey visits were undertaken during dry and still conditions, with temperatures ranging from 22.5 to 11.4C degrees centigrade.

3.3 The emergence survey visits commenced 15 minutes before sunset and continued for 1.5 hours after sunset. The re-entry survey visit commenced 1.5 hours before sunrise and for 15 minutes after sunrise. Each surveyor was equipped with an Echo Meter Touch bat detector to detect, visualise and record the calls of any bats present in the area.

SURVEYORS

3.4 Mitch Cooke, who reviewed this report and completed a number of the survey visits, has a degree in Ecology (Hons), an MSc in Environmental Assessment and Management, and is a Full member of CIEEM with over 35 years' experience in ecological survey and assessment. Mitch has set up and developed ecological and environmental teams for nearly 20 years and has undertaken and managed numerous ecological surveys and assessments. He is the Director at Greengage and manages the team.

3.5 James Bumphrey, who led the surveys and wrote this report, has an undergraduate degree in Environmental Sciences (BSc Hons), a Master's degree in Environmental Consultancy and a Natural England Great Crested Newt Licence (2018-35160-CLS-CLS). James has over 8 years' experience as an ecological consultant.

3.6 Survey support was provided by a team of field surveyors as listed in Table 3.1 above.

3.7 Mitch Cooke confirms in writing (see the QA sheet at the front of this report) that the report is in line with the following:

- Represents sound industry practice;
- Reports and recommends correctly, truthfully and objectively;
- Is appropriate given the local site conditions and scope of works proposed; and
- Avoids invalid, biased and exaggerated statements.

LIMITATIONS AND COMMENTARY ON METHODOLOGY

3.8 Whilst the survey was completed in September (outside of the optimal survey season) weather conditions were highly suitable and, given the sites location in southern England, this was not considered a significant limitation.

4.0 RESULTS AND RECOMMENDATIONS

EMERGENCE / RE-ENTRY SURVEY

4.1 There was no evidence of roosting observed during the emergence / re-entry survey visits. Roosting bats can therefore be confirmed as likely-absent from the site.

4.2 Low levels of commuting and foraging were recorded on site. Bat species recorded were largely common pipistrelle (*Pipistrellus pipistrelles*) and soprano pipistrelle (*Pipistrellus pygmaeus*) with occasional passes of noctule (*Nyctalus noctule*).

Table 4.1 Bat Activity

Date	Bat Activity	Roosting?
21/09/21 (PM)	• Soprano pipistrelle pass 19.22 • Common pipistrelle passes 19.27, 19.41, 19.47, 19.49, 19.50, 19.59, 20.07 • Common pipistrelle foraging over Ham Village Green 19.32 • Noctule pass at height over site from east to west 19.23 • Activity entirely associated with Ham Village Green with the exception of the noctule	No roosting
23/09/21 (AM)	No activity	No roosting
23/09/21 (PM)	• Soprano pipistrelle pass 19.28. 19.30, 19.32, 19.34 • Common pipistrelle passes 19.30, 19.41, 19.44, 19.45, 19.46, 19.47, 19.50, 20.03, 20.06 • Activity largely focused along the trees at the western edge of the site	No roosting
29/09/21 (PM)	• Soprano pipistrelle passes 19.25, 19.45 • Common pipistrelle passes 19.27, 19.30. 19.35, 19.54, 20.03	No roosting

4.3 During the survey visits, high levels of existing artificial lighting were noted including security lighting on the eastern façade of the existing Youth Centre building that faces Ham Village Green (see photographs below).

Plate 4.1 View of security lighting on Youth Centre taken from Ham Village Green

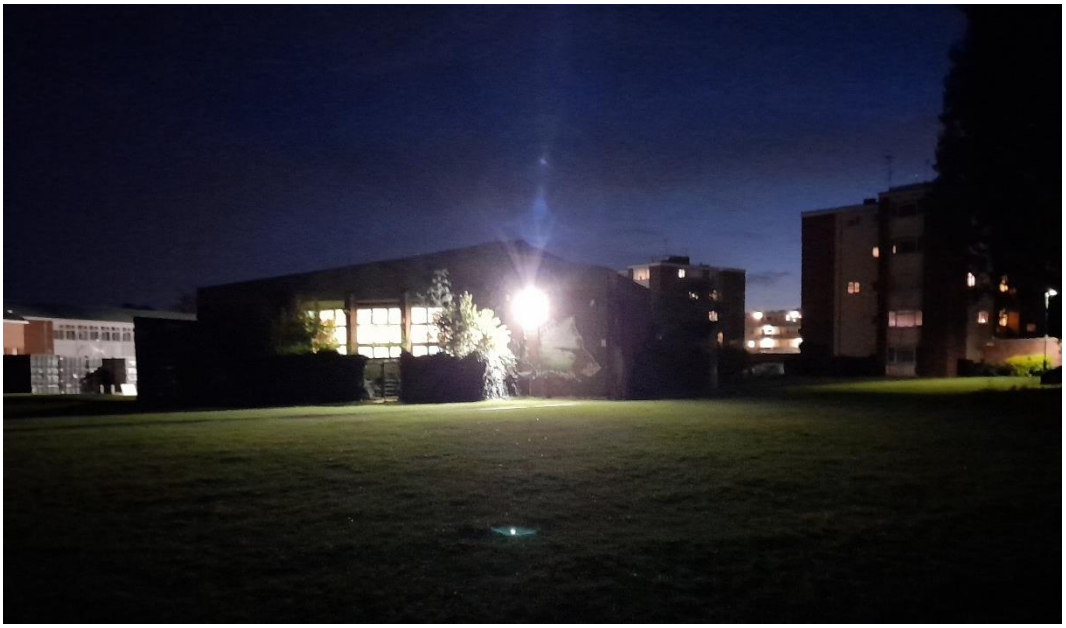


Plate 4.2 View of streetlighting

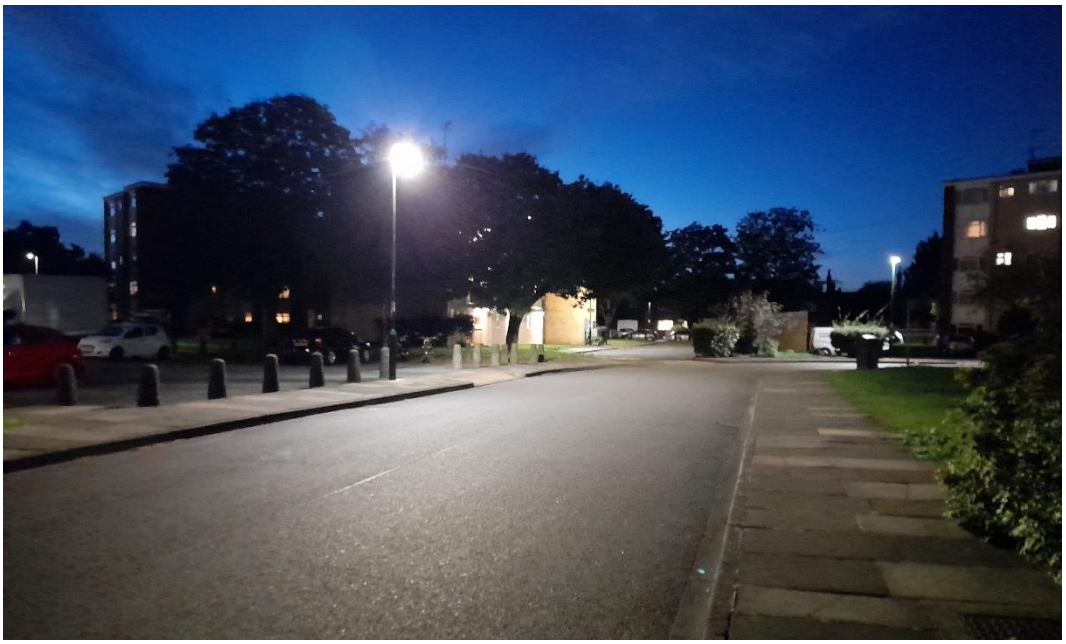
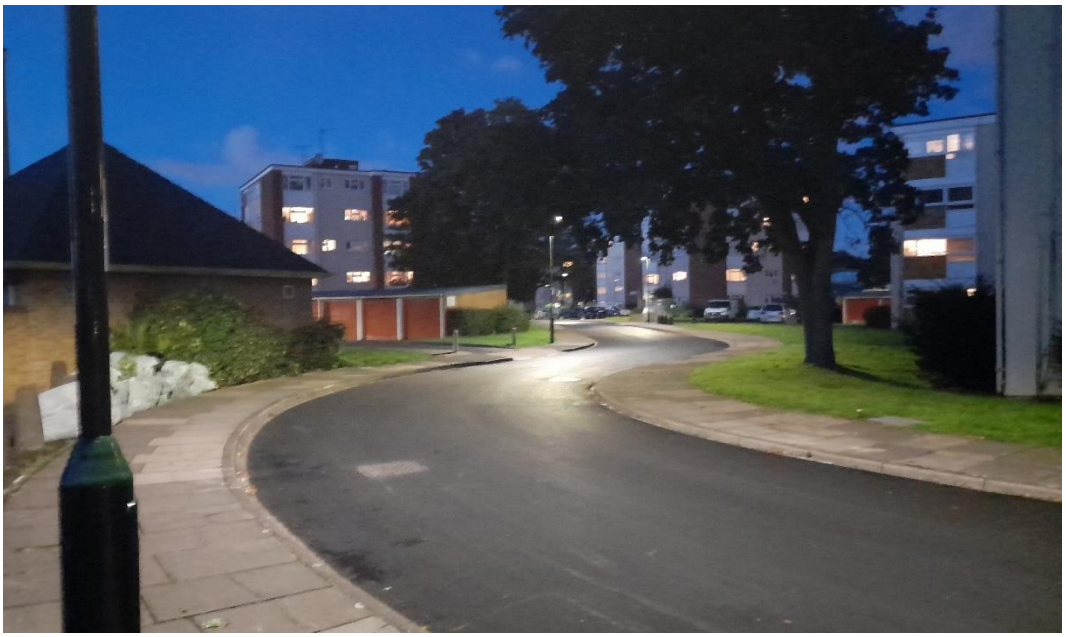


Plate 4.3 Additional view of streetlighting



RECOMMENDATIONS

4.4 Given the bat activity recorded, and existing levels of lighting on site, the impact of the proposed development upon local bat populations is expected to be negligible.

4.5 In accordance with planning policy and good practice, a number of recommendations are made which have potential to enhance the value of the site for bats.

Landscaping

4.6 Foraging habitat should be provided on site. Bats will benefit from the following landscaping features recommended in the preliminary ecological appraisal report (ref: 551842JB07OCT21FV01_PEA):

- Provision of substrate based biodiverse living roofs with enhancement features (e.g stone circles, 'designed' substrate piles and rope coils) alongside wildflower turf/blanket green living roofs;
- Green walls (trellis based system with climbing plants);
- Retention of existing trees where possible and provision of new street trees;
- Species rich grassland; and
- Sustainable Drainages features such as rain gardens.

Bat Boxes

4.7 Bat boxes should be placed on the eastern and western elevations of the buildings and existing trees. 'Woodstone' products that utilise a mix of concrete and FSC wood fibres, creating a strong, long-lasting and sustainable product, are recommended.

Sensitive Lighting

4.8 Given the sites suburban location the site is subject to existing levels of noise and light disturbance, from traffic and street/security lighting. A sensitive lighting strategy, designed in line with guidance from the BCT and Institute of Lighting Professionals (ILP)[3], would have potential to enhance the value of the site for bats. Features to consider include:

- Use of low-UV warm-white LED bulbs with directional, downward facing and shielded lights;
- Lighting pointing away from areas of newly implemented green infrastructure on site, bat boxes and existing green infrastructure within the zone of influence of the development; and
- External lights subject to curfew controls where possible with lights on movement sensors to reduce light pollution when not needed.

Updated Surveys

4.9 The surveys undertaken have a lifespan of 12 - 18 months; accordingly, if buildings have not been demolished in this time it may be appropriate to undertake updated surveys to determine up to date baselines.

5.0 SUMMARY

5.1 Greengage Environmental Ltd was commissioned by Hill Residential to undertake a bat survey at a site known as Ham Close within the London Borough of Richmond upon Thames. The aim of the survey was to determine the presence / likely absence of roosting bats.

5.2 An external inspection of the buildings and trees onsite identified low value for roosting bats in a number of the buildings.

5.3 Low levels of commuting and foraging behaviour (of common pipistrelle, soprano pipistrelle and noctule) was recorded with no roosting.

5.4 Given the bat activity recorded, and existing levels of lighting on site, the impact of the proposed development upon local bat populations is expected to be negligible. In accordance with planning policy and good practice, a number of recommendations are made which have potential to enhance the value of the site for bats.

5.1 The surveys undertaken have a lifespan of 12 - 18 months; accordingly, if buildings have not been demolished in this time it may be appropriate to undertake updated surveys to determine up to date baselines.

FIGURE 1 BAT SURVEY PLAN

Ham Close

Approximate Site Boundary
Surveyor Location

Potential roosting feature

Possible gap under fascia
Missing roof tile

Habitats

J3.6 - Buildings

Greengage

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Fig 1.0 Bat Survey Plan

Project Number 551842
November 2021
1 to 2000 at A3

N

0 20 40 60 80 100 m

APPENDIX 1 LEGISLATION AND POLICY

Six of the 18 British species of bat have Biodiversity Action Plans (BAPs) assigned to them, which highlights the importance of specific habitats to species, details of the threats they face and proposes measures to aid in the reduction of population declines.

All UK bats and their roosts are protected by law. Since the first legislation was introduced in 1981, which gave strong legal protection to all bat species and their roosts in England, Scotland and Wales, additional legislation and amendments have been implemented throughout the UK.

Six of the 18 British species of bat have Biodiversity Action Plans (BAPs) assigned to them, which highlights the importance of specific habitats to species, details of the threats they face and proposes measures to aid in the reduction of population declines.

Although habitats that are important for bats are not legally protected, care should be taken when dealing with the modification or development of an area if aspects of it are deemed important to bats such as flight corridors and foraging areas.

The Wildlife & Countryside Act 1981 (WCA) was the first legislation to provide protection for all bats and their roosts in England, Scotland and Wales (earlier legislation gave protection to horseshoe bats only.)

All eighteen British bat species are listed in Schedule 5 of the Wildlife and Countryside Act, 1981 and under Annexe IV of the Habitats Directive, 1992 as a European protected species. They are therefore fully protected under Section 9 of the 1981 Act and under Regulation 43 of the Conservation of Habitats and Species Regulations 2017, which transposes the Habitats Directive into UK law. Consequently, it is an offence to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat; and
- Intentionally or recklessly obstruct access to a bat roost.

This legislation applies to all bat life stages.

The implications of the above in relation to the proposals are that where it is necessary during construction to remove trees, buildings or structures in which bats roost, it must first be determined that work is compulsory and if so, appropriate licenses must be obtained from Natural England.

REFERENCES

[1] Bat Conservation Trust, (2016); Bat Surveys – Good Practice Guidelines. Bat Conservation

[2] Mitchell-Jones, A.J. & McLeish, A.P. (2004) Bat Works Manual, 3rd Edition

[3] Bat Conservation Trust (BCT) and Institute of Lighting Professional (ILP) Guidance Note (2018). Bats and artificial lighting in the UK. Bats and the built environment series