

Bat Activity Report.

Star Radcliffe Academy

Report prepared for Morgan Sindall

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1. Introduction

1.1 Site description, location and context

The site is located within the Radcliffe area of Bury in a semi urban environment and enclosed by existing residential and commercial land uses. The Manchester, Bolton & Bury Canal borders the north of the site, and the Manchester Metro Link line borders the eastern side of the site. The habitat on site comprises of scattered trees, amenity grassland, scrub and building habitat including areas of hard standing and play areas.

1.2 Proposed works

This report will inform the ongoing development for the site which aims to implement a new education facility.

1.3 Purpose, aims and objectives of this report

The Preliminary Ecological Appraisal dated 20.01.21 stated the site may hold significance for commuting and foraging bat species.

Therefore the purpose of this report is to establish the extent and nature of bat activity across the site. We shall aim to:

- Establish absence or presence (including species) on or adjacent to the site
- Estimate the assemblage of bat species using the site and the nature of that activity for example feeding, commuting, and / or roosting and / or socialising.
- Establish the importance of the habitat to bat use

The objective of the report is to be able to assess the impact of demolition and construction and any applicable mitigation or enhancement measures in relation to the extent and use of the habitat by bats.

2. Methods

2.1 Summary of survey methods

The survey is designed around the 2016 BCT Bat Surveys Good Practice Guidelines 3rd Edition Chapter 8 Bat Activity Surveys. This shall specifically include an assessment of habitat in accordance with Table 8.3 to ensure a reasonable survey effort in relation to habitat suitability has been achieved. A simple transect survey is considered suitable to advise the planning application if bats are present on the site and if so in what numbers. The site shall be split into transect walks. Activity surveys start before sunset using a Duet and a single full spectrum Echo Meter Touch recorder that shall listen to all bat activity for the full survey period. The surveyor shall walk the transects across the site as shown on the Activity Plan. The surveyor shall record bat activity including passes, species detected, behaviour for example feeding or commuting, flight direction both from and any relevant comments.

2.2 Pre Survey data search / existing report data.

Multi-Agency Geographic Information for the Countryside (MAGIC) website (<http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx>) has confirmed no statutory designations apply to the site and the site boundaries.

The site is located within SSSI Impact Zone for Nob End and Ashclough SSSI which is located 2475m west of site. The development proposal does not appear to conform to those development types that require the LPA to consult Natural England on the likely risks. Chapel field LNR is located 950m south and Hollins Vale is located 2245m east of site. The site itself is in the Community Forest non statutory designation.

Multi-Agency Geographic Information for the Countryside website data has confirmed the following habitats and species apply to the site and its immediate locality:

- There are no section 41 habitats listed on the inventory on the site or adjacent to the site boundaries. Priority woodland is located on the site boundary to the north outside the scrub denoted on the habitat plan.
- There are numerous areas of listed woodland within the 1km which are mainly located within 1km.
- The site is within the National Habitat Network All Habitats Combined (England) Network Enhancement Zone 2
- The canal to the north of the site is designated as National Habitat Network All Habitats Combined (England) Lowland Fens.
- The site area is covered by the countryside stewardship priority area for lapwing species and the area forms part of the Bird Conservation Targeting Project for farmland assemblages of bird species.
- There are no important Bird Areas, Seabird considerations, or water and wetland considerations in respect of avian species. The site is 450m south of an upland breeding bird area.
- The closest granted European Protected Species (EPS) license application by Natural England was for bat species (Pipistrelle) approximately 450m east of site. No other EPS licenses are within 1km.

The Local Records Centre data indicates the following:

- There are several protected species on site (S41) which include House sparrow, skylark, dunnock, linnet, kingfisher and reed bunting are all present within 1km. Kingfisher, hobby, little ringed plover, otter and peregrine are all recorded within the 1km.
- Badger records are within 1km, the closest is <1km
- A bat roost has been identified off site <50m (Common Pipistrelle) as well as several signs from the same species all within 250m. Several bat species are recorded within 1km

including 8 roost sites.

- Sites of Biological Interest are recorded as Manchester and Bolton and Bury east canal adjacent to site including the wetland near Radcliffe <150m off site to the north. Withins reservoir <950m from site and marl pits and Black Lane <900m from site and Sailors Brow <800m from site.
- Chapel field LNR is located 950m south of site.

2.2.1 Habitat assessment

The habitat has been considered to have an overall moderate potential for foraging bats.

2.3 Surveyor information

Simon Brain (Managing Director) has attained a Post Graduate Certificate in Biological Recording and has attended FSC Field Courses for Land mammals, Songbird identification, Barn Owls (CIEEM) and Advanced Bird Survey Techniques (Level M). He has 9 years experience in bat and avian work. He has accumulated over 450 hours of bat contact time and holds an NE Class 2 license (70619:OTH:CSAB:2016). He has attended courses for trees and bats, bat survey techniques, bat handling, bat mitigation and attended three european workshops.

2.4 Field Surveys

2.4.1 Activity survey

Survey transects were undertaken as detailed below

3. Results

3.1 ACTIVITY SURVEY RESULTS FIRST VISIT

Site: Star Academy, Radcliffe

Date: 02nd July 2023

Sunset: 21:39

Starting conditions:

Temperature: 13c

Wind: 11Mph E

Cloud cover: 1/8

Rain: Nil

Humidity: 69%

Pressure: 1008Hpa

End conditions:

Temperature: 15c

Wind: 12 Mph E

Cloud cover: 8/8

Rain: Nil

Humidity: 64%

Pressure: 1005Hpa

Methodology:

The site was of sufficient size to warrant a mobile transect for activity, the route was determined to encompass all aspects of the site and to accurately represent how the site may be used by UK bat species. Every detection or observation would be documented. The route would be modified slightly between visits accounting for access granted to previously locked gates.

Equipment:

- Pettersson M500 microphone, working with Sonobat live recording software.
- Pixfra mile m40 25mm thermal spotter



Legend:

-  = Transect route
-  = Detection
-  = Foraging behaviour

Survey start time: 21:20

Survey end: 22:40

Identifier	Time	Species	Notes
A	21:38	Common Pipistrelle	Foraging around the tree canopy of bordering treeline, persistent for several minutes

ACTIVITY SURVEY RESULTS SECOND VISIT

Site: Star Academy, Radcliffe

Date: 16nd July 2023

Sunset: 21:41

Starting conditions:

Temperature: 15c

Wind: 09Mph E

Cloud cover: 6/8

Rain: moderate

Humidity: 61%

Pressure: 1022Hpa

End conditions:

Temperature: 13c

Wind: 09Mph E

Cloud cover: 6/8

Rain: Nil

Humidity: 59%

Pressure: 1017Hpa



Legend:

- = Transect route
- A = Detection
- ▲ = Foraging behaviour

Identifier	Time	Species	Notes
A	21:06	<i>Common Pipistrelle</i>	Foraging around the tree canopy of bordering treeline, persistent for several minutes akin to the first survey.
B	2123	<i>Common Pipistrelle</i>	Bat seen commuting back and forth along the treeline for a few minutes before becoming undetectable

3.2 Survey summary

Summary:

Very minimal amount of activity on site, the treeline to the north of the site hosted the most activity and it was consistent across both site visits.

3.3 Constraints to the Surveys

There were no weather related constraints due to the warm conditions at survey time.

4. Assessment

4.1 Constraints on survey information or equipment

It was considered that no constraints were applicable. All bats were detectable with the equipment used.

4.2 Potential impacts of development

Bat foraging activity has been demonstrated on site by one separate species and the amount of activity is low. The areas of foraging are retained within development and no impact is considered likely.

5. Conclusions, recommendations, and enhancement

5.1 Conclusions

Bat presence on site has been established by this activity survey and species have been confirmed from the manual bat transect surveys.

Levels of bat use have been established and numbers of animals and activity have demonstrated that the importance of the site to bat species is low to the local population.

Recommendations

No recommendations are necessary

5.2 Enhancement measures

The site is being used for commuting and feeding by the local bat population and the study areas are of significance to that population.

Under the National Planning Policy Framework 2012 and the NERC Act 2006 there is a requirement to improve existing environment through enhancement.

The site shall be subject to a bat specific planting plan aimed at maintaining the ecological connection between site and the wider landscape.

Research has found that lighting can cause considerable disturbances to bats and may interfere with bat navigation during nocturnal commuting flights to suitable feeding sites. It is recommended by the Bat Conservation Trust and Institute of Lighting Engineers that lighting at ground level should be below 3 Lux (BCT & ILE 2008). The site was found to be largely unaffected by lighting and there was only low levels of light spill from the internal lighting of the adjacent houses. The redevelopment will seek to ensure that lighting should be appropriately designed to ensure minimal light spill, particularly on the southern boundary. This could be achieved by:

- Ensuring lights are only erected where they are needed, illuminated only during the time period that they will be used, and at levels that enhance visibility.

- Using narrow spectrum bulbs, to lower the range of species affected by lighting, and avoiding the use of light sources that emit ultraviolet.
- Ensuring that there are no bare bulbs or lights that point upwards.
- Ensuring that the spread of light is kept near to or below the horizontal plane.
- Reducing the height of the lighting columns since light at a low level reduces ecological impact.
- Ensuring only low level lighting that is as directional as possible is provided and that light emitted from these fixtures is below 3 lux at ground level.
- LED lighting, ideally amber LED (bat-lamps) that have a negligible UV component may be a preferred option since these show a low insect attractiveness comparable to low pressure sodium lamps and they are more directional, thus reducing light spill (Fure 2012).
- Where possible, external lights should comprise sensor activated lamps (Jones 2000; BCT & ILE 2008) so that lights are only operational when they are needed.
- Avoiding the illumination of habitat features used by bats, notably the boundary tree and linear hedgerows.

In addition to the planting and lighting plans suitable bat boxes shall be installed to provide supplementary roosting opportunities.

5.3 Mitigation licenses

There are no requirements for mitigation licensing as there is no requirement for anyone to carry out activity prohibited under wildlife legislation.

6. Summary

- 6.1 Bats were found to be commuting and feeding on the site which was attributed to numbers of Common bat species. The numbers of bats recorded confirms the habitat is used foraging and commuting by the local bat population and suggests the importance of the site to bat species is low.

As such the favourable conservation status of the bat species present on the site need to remain unaffected by development plans. Enhancement plans can be suited to bat species using the site by introducing appropriate measures within the development. This will facilitate the improvement of the foraging areas on the site and its immediate environment and maintain the areas of biological connection to the wider environment. The provision of artificial roosting within suitably lit conditions into the development could lead to an improvement in site conditions for bat species. Habitat fragmentation has been a major reason for bat decline and the maintenance of suitably lit foraging habitat on the site is also required as part of the enhancement measures for bats.

Appendix One – Legislation

All bat species in the UK are fully protected under The Conservation (Natural Habitats, &c.) Regulations 2010 (as amended) through their inclusion on Schedule 2 of the Act. Regulation 41 prohibits:

Deliberate killing, injuring or taking (capture) of bats

Deliberate disturbance of bats in such a way as to:

impair their the ability to survive, breed, or rear or nurture their young; or

affect significantly the local distribution or abundance of bat species; or impair their ability to hibernate or migrate

Damage or destruction of a bat breeding site or resting place i.e. roost

- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

All bat species in the UK are also protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, it is an offence to:

- Intentionally or recklessly disturb any bat while it is occupying a structure or place which it uses for shelter or protection
- Intentionally or recklessly obstruct the access to any place of shelter or protection used by bat(s)
- Sell, offer or expose for sale, possess or transport a bat(s) for the purpose of sale.

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will need to be applied for to allow derogation from the relevant legislation i.e. for works liable 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, hibernate, migrate). 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.

Conservation (Natural Habitats) Regulations 2010

The species protection provision of the EC Habitats Directive 1992, as implemented by the Conservation of Habitats and Species Regulations 2010, comprises three “derogation tests” which must be applied by the Local Planning Authority when deciding whether to grant planning permission for a development that could harm a European Protective Species. The three tests are that:

- The activity to be licensed must be for imperative reasons of overriding public interest or for public health and safety;
- There must be no satisfactory alternative; and,
- Favourable Conservation Status (FCS) of the species must be maintained.

It is the responsibility of the applicant to submit sufficient information to address these tests when applying for planning permission. For development activities, an EPSM Licence application can only be obtained after planning permission has been granted. However, the

granting of planning permission does not guarantee that a licence will be issued by the relevant countryside agency.

National Planning Policy Framework (2012)

The National Planning Policy Framework (NPPF) (2012) sets out the Government's national policies on different aspects of planning in England. Section 10 paragraphs 109 to 125 details planning policies on the conservation and enhancement of the natural environment. Circular 06/2005 provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

In summary:

The planning system should contribute to and enhance the natural and local environment by: *'minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.'* (NPPF Section 10, para 109)

When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused (Section 10, para 118).
- Proposed development on land within or outside a Site of Special Scientific Interest likely to have an adverse effect on a Site of Special Scientific Interest (either individually or in combination with other developments) should not normally be permitted (Section 10, para 118).
- Development proposals where the primary objective is to conserve or enhance biodiversity should be permitted (Section 10, para 118).
- Opportunities to incorporate biodiversity in and around developments should be encouraged (Section 10, para 118).
- Planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss (Section 10, para 118)
- Potential Special Protection Areas and possible Special Areas of Conservation, listed or proposed Ramsar sites and sites identified or required as compensatory measures for adverse effects on European sites, should be given the same protection as European sites (Section 10, para 118).
- The presumption in favour of sustainable development (para 14) does not apply where development requiring appropriate assessment under the Birds or Habitats Directives is being considered, planned or determined (Section 10, para 119)
- Planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation (Section 10, para 125).

Local planning authorities must take account of the conservation of protected species when determining planning applications. The presence of protected species is a material consideration when assessing a development proposal that, if carried out, would be likely to result in harm to the species or its habitat. This requirement has important implications for bat surveys as it means that, where there is reasonable likelihood of bats being present and being affected by the development, surveys must be carried out before planning permission is considered' (BCR 2012). In order for the Local Planning Authority to adequately assess a development proposal against National and Local Planning Policy, full comprehensive ecological surveys need to be carried out and suitable mitigation strategies compiled prior to the submission of any planning application. This information will be reviewed by the Local Planning Authority in consultation with the relevant countryside agency and other conservation bodies.

Any developer should, in the first instance, consult the relevant Local Plans to assess the suitability of their proposal (refer to NPPF Section 10 paras 113 to 117).

Natural Environment and Rural Communities Act 2006 (NERC)

Part 3, Section 40 of the NERC Act 2006 states that 'every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity', otherwise known as the Biodiversity Duty. Under Section 41 of the Act, the Secretary of State must publish a list of the living organisms and types of habitat which in the Secretary of State's opinion are of principal importance for the purpose of conserving biodiversity. This list is based on those species listed in the UK Biodiversity Action Plan (BAP) as priority species. The S41 list replaces the list published under Section 74 of the Countryside and Rights of Way (CRoW) Act 2000.

Biodiversity Action Plan

Biodiversity Action Plans (BAPs) set out actions for the conservation and enhancement of biological diversity at national, regional and local level. They consist of both Habitat Action Plans (HAPs) and Species Action Plans (SAPs) and species and habitats listed within these are defined as being of Principal Importance for the Conservation of Biodiversity under Section 41 of the NERC Act 2006. Local authorities must consider these species and habitats when determining planning applications.