



Preliminary Roost Assessment

18 Lake Drive, Middleton, Rochdale, M24 1WB

Robert Stephenson

Status	Issue	Name	Date
Draft	1	Kayleigh Davies, BSc (Hons), MSc, Graduate Ecologist	07/12/23
Reviewed	1.1	Mel Reid BSc (Hons) MRes MRSB, Senior Consultant	21/12/2023
Final	2	Kayleigh Davies, BSc (Hons), MSc, Graduate Ecologist	22/12/23

Arbtech Consultant's Contact Details:

Kayleigh Davies
Graduate Ecologist
Tel: 07842 430258 Email: kayleighdavies@arbtech.co.uk
<https://arbtech.co.uk>

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Industry Guidelines and Standards

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary, and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

Executive Summary

Arbtech Consulting Limited was instructed by Robert Stephenson to undertake a Preliminary Roost Assessment (PRA) at 18 Lake Drive, Middleton, Rochdale, M24 1WB (hereafter referred to as “the site”). The survey was required to inform a planning application for a loft conversion of the residential dwelling (hereafter referred to as “the proposed development”).

The following is work you will need to commission to comply with planning policy and legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in Table 6 of this report.

Building	Survey Results Summary	Impact Assessment	Recommendations
Roosting bats (B1)	Building 1 has negligible value for roosting bats due to a lack of potential roost features.	Bats are very unlikely to be roosting within this building 1 and as such, there are not anticipated to be any impacts on roosting bats as a result of the renovations to this building.	In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.
Foraging and commuting bats	The introduced shrubs in the urban garden could be used by local bat populations for foraging and commuting. These could also be used by bats dispersing from nearby roosts outside of the site.	The proposed development will not result in the removal of any habitats which could be used by foraging or commuting bats.	None.
Nesting birds (B1)	The building has a bird box located on the western elevation.	The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.	Works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building should be undertaken immediately, by qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged.
Other ecological constraints	None identified.	N/A	N/A

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Robert Stephenson to undertake a Preliminary Roost Assessment (PRA) at 18 Lake Drive, Middleton, Rochdale, M24 1WB(hereafter referred to as “the site”). The survey was required to inform a planning application for a loft conversion at the residential dwelling (hereafter referred to as “the proposed development”). A plan showing the proposed development is provided in Appendix 1.

The aim of the PRA was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how bats could use the site for roosting, foraging or commuting. This has been undertaken with due consideration to the “Bat Surveys for Professional Ecologists —Good Practice Guidelines” publication (Collins, 2016). No previous ecology reports have been produced for this site by Arbtech Consulting Ltd or, to the author’s knowledge, by any other consultancy.

1.2 Site Location and Landscape Context

The site is located at National Grid Reference SD 8605 7108 and has an area of approximately 0.1ha comprising a residential dwelling and associated urban garden. It is surrounded by residential dwellings with Alkrington Woods and pond (LNR) 5m to the north and Wince Brook Park ~1,215m to the southeast. The wider landscape comprises residential dwellings, roads and urban green spaces. A site location plan is provided in Appendix 2.

1.3 Scope of the Report

This report provides a description of all features suitable for roosting, foraging and commuting 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 possible constraints to the proposed development as a result of 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. To achieve this, the following steps have been taken:

- A desk study has been carried out.
- A field survey has been undertaken, including an inspection of built structures, to determine the presence or the suitability of any features which bats could use for roosting and to assess the suitability of the site’s bat foraging and commuting habitat.
- An outline of potential impacts on any confirmed or unidentified roosts has been provided, based on the proposed development.
- Recommendations for further surveys and mitigation have been made, along with advice on the requirements for a European Protected Species Licence (EPSL) application if appropriate.
- Opportunities for the enhancement of the site for roosting, foraging and commuting bats have been set out.

2.0 Methodology

2.1 Desk Study

The desk study included a 2km radius review of statutory designated sites with bat qualifying interests and granted EPSL records for bats held on magic.gov.uk database. An assessment of the surrounding landscape structure was also completed using aerial images from Google Earth and OS maps.

2.2 Field Survey

The survey was undertaken Kayleigh Davies, Graduate Ecologist (Accredited Agent on Natural England Bat Licence Number: 2022-10404-CL18-BAT) on 12/12/23.

The PRA focussed on one built structure which will be affected by the proposed development as well as providing an overview of the wider site and the surrounding landscape for bat roosting, foraging and commuting habitat.

For any surveyed buildings:

A non-intrusive visual appraisal was undertaken from the ground, using binoculars to inspect the external features of the buildings for features which bats could use for roosting, including access or egress points and for signs of bat use including droppings, scratch marks, insect remains and urine smear marks. An internal inspection of the buildings was also made, including the living areas and any accessible roof spaces, using a 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.

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.

2.4 Suitability Assessment

Built structures were categorised according to the likelihood of bats being present and the types of roost that the identified features could support. This is summarised in Table 1 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.

Classification	Feature of building and its context
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. 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 and not a classic cool/stable hibernation site, but could be used by individual hibernating bats).
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, such as maternity and hibernation – the categorisation described in this table is 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 potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. These structures have the potential to support high conservation status roosts e.g. maternity or classic cool/stable hibernation site.

2.5 Limitations

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 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. Bats are highly mobile creatures that switch roosts regularly and therefore the usage of a site by bats can change over a short period of time.

No proposed development plans were available at the time of writing this report and therefore a detailed impact assessment could not be made. This report should be updated once the plans are available.

These limitations have been taken into account during the evaluation of the site and requirement for further surveys and mitigation.

3.0 Results and Evaluation

3.1 Designated Sites

Details of any statutory designated sites with bat qualifying interests and other designated sites with suitable habitat for bats within a 2km radius of the site, including their reasons for notification, are provided in Table 2 below.

Table 2: Statutory designated sites with bat qualifying interests within 2km radius of the site.

Designated site name	Distance from site	Reasons for notification from Natural England
Alkrington Woods (Local Nature Reserve)	5m to the north	Habitats include woodland, grassland, marsh, standing water and amenity areas.

3.2 Historical Records

A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed. Displaced bats from licensed sites <2km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence or will relocate to other known roosts sites in close proximity to the licensed site. EPSL records for bats are summarised in Table 3.

Table 3: Granted EPSLs for bats within 2km of the site.

EPSL reference	Bat species affected	Impacts allowed by licence
2015-8774-EPS-MIT	Common pipistrelle	Destruction of a resting place
2014-2836-EPS-BDX	Common pipistrelle	Destruction of a breeding place

3.3 Field Survey Results

The weather conditions recorded at the time of the survey are shown in Table 4. The results of the field survey are detailed in Table 5 and illustrated in Appendix 3.

Table 4: Weather conditions during the survey

Date:	12/12/2023
Temperature	8°C
Humidity	61%
Cloud Cover	40%
Wind	4mph
Rain	None

Table 5: PRA Results

Feature	Description	Photographs
Bat foraging and commuting habitat	The site has low value for foraging and commuting bats. The site consists of mainly hard standing and ornamental shrubs. However, directly immediate to the site, there is high foraging habitat due to the presence of the lake and the surrounding trees.	

B1 - overview	B1 is a semi-detached, residential dwelling with a hipped roof and a two-storey extension on the western elevation with a flat roof. The roof is constructed of ceramic tiles with a chimney stack located to the east of the building. The soffits and windows are UVPC, and the walls are brick constructed.	
B1 – southern elevation	The southern elevation of B1 is in good condition. The roof is well sealed with no slipped or broken roof tiles present. The walls are in good condition with no cracks or missing mortar. The chimney stack is also in good condition and well-sealed. No roosting features were noted.	

B1 – northern elevation	The northern elevation is in good condition. The roof is sealed, and all the roof tiles are in good condition and all flush together providing no gaps. The soffits are in good condition and do not have any gaps or cracks.	
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B1 – western elevation	The western elevation features the single storey extension with the flat roof and the metal bargeboard. The walls and the bargeboard are in good condition with no gaps present.	 A photograph of the western elevation of a brick building. The building is constructed of red brick and features a single-storey extension with a flat roof and metal bargeboard. A window with a dark frame is visible on the extension. A small, round, white object is mounted on the wall below the window. To the right, a green and blue recycling bin is visible. The sky is overcast.
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B1 – interior	The interior loft space of B1 is currently being used for storage. It is partially boarded, with a slanted roof that is also boarded, with parts of the roof still visible. There are wooden beams and fibreglass insulation present. The roof is well sealed with no sunlight visible entering the space. There is no access to within the space that would allow bats to enter. Due to the high levels of disturbance due to the use of the space as storage, the lack of roosting features and access internally, the loft is negligible for void dwelling bats.	
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B1 – suitability assessment	Due to the lack of roosting features present, B1 has a negligible habitat value for roosting bats. Furthermore, due to the lack of access to the internal void of B1, and the regular disturbance of the loft space, there is a negligible habitat value for void dwelling species.	
B1 - breeding birds and other incidental observations	A bird box was observed to be located on the western elevation of the building.	

4.0 Conclusions, Impacts and Recommendations

Taking the desk study and field survey results into account, Table 6 presents an evaluation of the value of the site for bats and also details any other ecological constraints identified such as nesting birds in relation to the proposed development which will comprise loft conversion of the residential dwelling.

Table 6: Evaluation of the site for bats and any other ecological constraints

Building	Survey Results Summary	Impact Assessment	Recommendations	Biodiversity Enhancement Opportunities ¹
Roosting bats (B1)	Building 1 has negligible value for roosting bats due to a lack of potential roost features.	Bats are very unlikely to be roosting within this building 1 and as such, there are not anticipated to be any impacts on roosting bats as a result of the renovations to this building.	In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.	The installation of two bat boxes or integrated bat boxes at the site will provide additional roosting habitat for bats. The bat boxes will be installed on the residential dwelling. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light. The bat boxes will be a specification suitable for crevice dwelling species such as Beaumaris Bat Box or Integrated Eco Bat Box or a similar alternative brand.
Foraging and commuting bats	The introduced shrubs in the urban garden could be used by local bat populations for foraging and commuting. These could also be used by bats dispersing from	The proposed development will not result in the removal of any habitats which could be used by foraging or commuting bats.	None.	None.

¹ The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021).

	nearby roosts outside of the site.			
Nesting birds (B1)	The building has a bird box located on the western elevation.	The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.	Works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building should be undertaken immediately, by qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged.	The installation of a minimum of two bird boxes on mature trees around the site boundaries or on retained buildings will provide additional nesting habitat for birds e.g. Schwegler No 17 Swift Nest Box (buildings) Schwegler 1SP Sparrow Terrace (buildings) Schwegler 1B Nest Boxes (trees) Schwegler 2H Robin Boxes (trees) Woodstone Nest Box (buildings or trees) Or a similar alternative brand. Tree boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground on an area of the tree trunk where foliage will not obscure the entrance hole. Swift and sparrow boxes should be positioned at the eaves of a building and can be incorporated into the fabric of the building during construction.
Other ecological constraints	None identified.	N/A	N/A	N/A

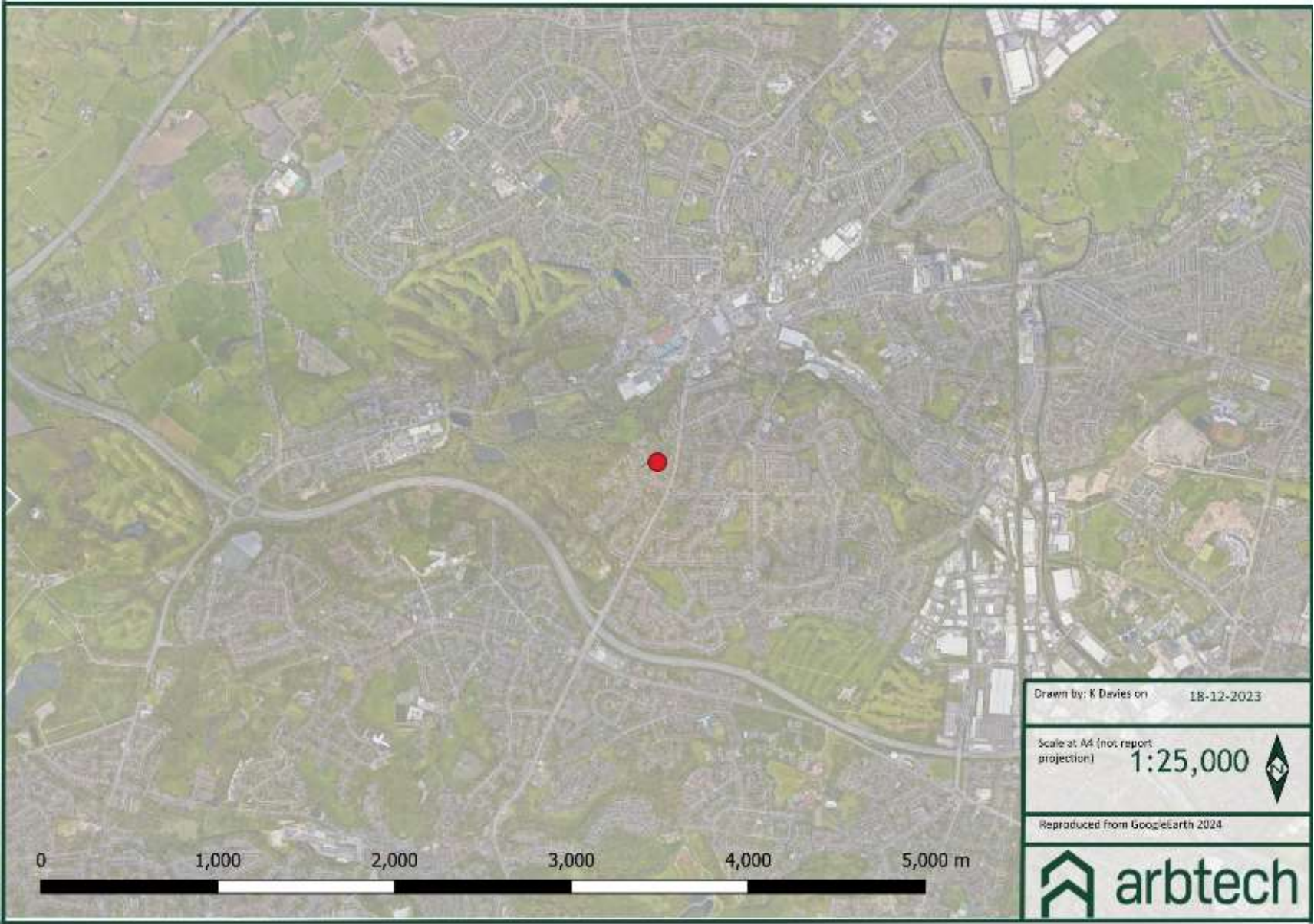
5.0 Bibliography

- Collins, J. (2016). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 3rd edition, Bat Conservation Trust, London.
- The Core Strategy (2016) can be viewed here: <https://www.rochdale.gov.uk/downloads/file/405/core-strategy>.
- Garland, L. & Markham, S. (2008) Is Important Bat Foraging and Commuting Habitat Legally Protected? <http://biodiversitybydesign.co.uk/cmsAdmin/uploads/protection-for-bat-habitat-sep-2007.pdf>
- Google Earth. Accessed on 14/12/2023.
- Institution of Lighting Professionals (2018). Guidance Note 08/18 Bats and Artificial Lighting in the UK. Bats and the Built Environment Series Publication: http://www.bats.org.uk/news.php/406/new_guidance_on_bats_and_lighting.
- Magic Database. <http://www.magic.gov.uk/MagicMap.aspx> Accessed on 14/12/2023.
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.
- Natural England Designated Sites View. <https://designatedsites.naturalengland.org.uk/SiteSearch.aspx> Accessed on 14/12/2023.
- The Rochdale Green Infrastructure Action Plan can be viewed here: <https://www.rochdale.gov.uk/downloads/file/815/rochdale-township-green-infrastructure-action-plan>.
- Wray, S., Wells, D., Long, E., Mitchell-Jones, T (2010) Valuing Bats in Ecological Impact Assessment. IEEM In-Practice. Number 70 (December 2010). Pp. 23-25.

Appendix 1: Proposed Development Plan



Appendix 2: Site Location Plan



Appendix 3a: PRA Plan



Appendix 4: Legislation and Planning Policy Related to Bats

LEGAL PROTECTION

All species of bat are fully protected under *The Conservation of Habitats and Species Regulations 2017* (as amended) through their inclusion on Schedule 2.

Regulation 43: Protection of certain wild animals - offences

(1) A person is guilty of an offence if they:

- (a) Deliberately captures, injures or kills any wild animal of a European protected species,
- (b) Deliberately disturbs wild animals of any such species,
- (c) Deliberately takes or destroys the eggs of such an animal, or
- (d) Damages or destroys a breeding site or resting place of such an animal,

(2) For the purposes of paragraph (1) (b), disturbance of animals includes in particular any disturbance which is likely—

- (a) To impair their ability:
 - (i) To survive, to breed or reproduce, or to rear or nurture their young; or
 - (ii) In the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- (b) To affect significantly the local distribution or abundance of the species to which they belong.

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

NATIONAL PLANNING POLICY

National Planning Policy Framework 2021

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 species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) 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; measurable gains in biodiversity in and around developments are incorporated; 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 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.

LOCAL PLANNING POLICY

Core Strategy (October 2016)

The Core Strategy can be viewed here: <https://www.rochdale.gov.uk/downloads/file/405/core-strategy>

The following planning policies have implications for developers in relation to bats:

- SD1 - When considering development proposals the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework. It will always work pro-actively with applicants jointly to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social, and environmental conditions in the area.

Rochdale Green Infrastructure Action Plan

The Rochdale Green Infrastructure Action Plan can be viewed here: <https://www.rochdale.gov.uk/downloads/file/815/rochdale-township-green-infrastructure-action-plan>

All bat species are included in the plan.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by 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).

There are 17 species of bat breeding in England and Natural England issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

Licences are issued for specific purposes stated in the Regulations, if the following three tests are met:

- The purpose of the work meets one of those listed in the Habitats Regulations (see below);
- That there is no satisfactory alternative;
- That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range

The Habitats Regulations permits licences to be issued for a specific set of purposes including:

1. include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
2. scientific and educational purposes;
3. ringing or marking; and,
4. conserving wild animals.

Development works fall under the first purpose and Natural England issues bat mitigation licences for developments.

EUROPEAN PROTECTED SPECIES POLICIES

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

- Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;
- Policy 2; provides greater flexibility in the location of compensatory habitat;
- Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
- Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.

The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to 'local populations' of EPS and not individuals/site populations.