



DCS ECOLOGY

Biodiversity Enhancement Strategy

At

**Red House Farm, Ashbocking, Suffolk,
IP6 9LD**

Carried out for:

Billy Conran

of

Project Orange / Architects & Designers.

1st



DCS ECOLOGY

M 07715345462
T 01473 621113
W dcsecology.com
E duncan@dcsecology.com

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The authors and surveyors used to undertake the work are appropriately qualified for the tasks undertaken. The work undertaken while preparing this report has been carried out with due care, skill, and diligence.

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Kikambala, 69 Deben Avenue, Martlesham Heath, Suffolk, IP5 3QR.

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1. Executive summary

1.1. Overview

Ecology Ltd was commissioned by Billy Conran of Project Orange / Architects & Designers. to produce a Biodiversity Enhancement Strategy, to satisfy Condition 15 of the Planning Permission granted (ref DC/21/05821) as part of the development of Red House Farm, Ashbocking, Suffolk, IP6 9LD. The Site is proposed for a phased development of 5 dwellings (no. 4 new buildings, no. 1 replacement), car parking, and associated infrastructure. Currently, the site is a ware house complex with hardstanding, surrounded by agricultural fields.

This Biodiversity Enhancement Strategy summarises the results gathered by previous survey effort and details recommendations, appropriate timings, and biodiversity enhancements necessary to avoid negatively impacting species and habitats of interest found within the site. These surveys were undertaken in 2015, 2018 and 2021 and recorded evidence of a single common pipistrelle roosting in the mid-section of the warehouse complex. Hedgerows and trees surrounding site and the remaining areas of the client's land (predominately amenity grassland and a dwelling) provided suitable breeding habitat for nesting passerine (perching) birds. The site also provided potential foraging and commuting habitat for small mammals such as hedgehogs.

2. Introduction

2.1. Background

DCS Ecology Ltd was commissioned by Billy Conran of Project Orange / Architects & Designers to produce a Biodiversity Enhancement Strategy for Red House Farm, Ashbocking, Suffolk IP6 9LD. (central grid reference TM 17681 53921, hereby referred to as the Site³). The site is a complex of warehouse buildings and hardstanding, surrounded by agricultural land with a single access track 0.38ha in extent. Full Planning permission for the erection of five dwellings (four new and one replacement) following the demolition of commercial buildings and an existing flat was granted by Mid Suffolk and Babergh Planning Council on 17th December 2021 (reference DC/21/05821). This report has been created to discharge condition 15 of the planning grant “*The use shall not commence, and the new dwelling shall not be occupied, until a Biodiversity Enhancement Strategy for Protected and Priority species has been submitted to and approved in writing by the local planning authority.*”

Ecology surveys undertaken by BASEcology Ltd in 2015, 2018 and 2021 have been reviewed recommendations have been taken into consideration for this document, particularly in regards to birds and bats. In 2015, nocturnal bat dusk surveys recorded the emergence of a single common pipistrelle on the southern elevation of the midsection of the barn, and an updated nocturnal survey reported a possible emergence from the north-eastern elevation of the same building. A full EPS bat mitigation licence (A13) has been sought to allow works at Red House Farm to commence. Hedgerows and mature trees surrounding site provided potential for nesting passerine birds and roosting bats. The site also provided potential foraging and commuting habitat for small mammals such as hedgehogs.

Using the information from the above survey work, this report details information of a Biodiversity Enhancement Strategy.

2.2 *Aims and objectives*

The aims of this Biodiversity Action Plan are to assist with discharging relevant conditions (15), as part of the reserved matters, which were imposed when outline approval for the development was granted in 2021; and to provide information for the provision of ecological enhancement, including habitat creation for the life of the proposed development.

Conditions considered relevant to this Enhancement Strategy are as follows:

Condition 15 PRIOR TO COMMENCEMENT: BIODIVERSITY COMPENSATION AND ENHANCEMENT STRATEGY

PRIOR TO OCCUPATION: BIODIVERSITY ENHANCEMENT STRATEGY

The use shall not commence, and the new dwelling shall not be occupied, until a Biodiversity Enhancement Strategy for Protected and Priority species has been submitted to and approved in writing by the local planning authority. The content of the Biodiversity Enhancement Strategy shall include the following:

- a) Purpose and conservation objectives for the proposed enhancement measures;
- b) detailed designs to achieve stated objectives;
- c) locations of proposed enhancement measures by appropriate maps and plans;
- d) persons responsible for implementing the enhancement measures;
- e) details of initial aftercare and long-term maintenance (where relevant). The approved works shall be implemented fully in accordance with the approved details and shall be retained in that manner thereafter.

Reason - To enhance Protected and Priority Species/habitats and allow the LPA to discharge its duties under the NPPF and s40 of the NERC Act 2006 (Priority habitats & species).

2.3 *Site Description*

The site, approximately 0.38ha in extent, is located off from the B1078 Road in Ashbocking village, Suffolk, approximately nine miles north of Ipswich Town. The central Ordnance Survey National Grid Reference of the site is TM 17681 53921. The site currently supports a number of mixed-use buildings surrounded by amenity grassland and a single pond, with hedgerows and scattered trees along the site borders. The existing buildings on-site are to be demolished as part of the development proposal.

The site environs are dominated by arable farmland, with the former farmhouse (Red House Farmhouse) bordering the southern site boundary. The local green infrastructure is limited to hedgerows along the respective field margins. Aerial photographs indicate many of these in the wider area are severed and fragmented. The local green infrastructure in relation to the site is, therefore, considered relatively poor

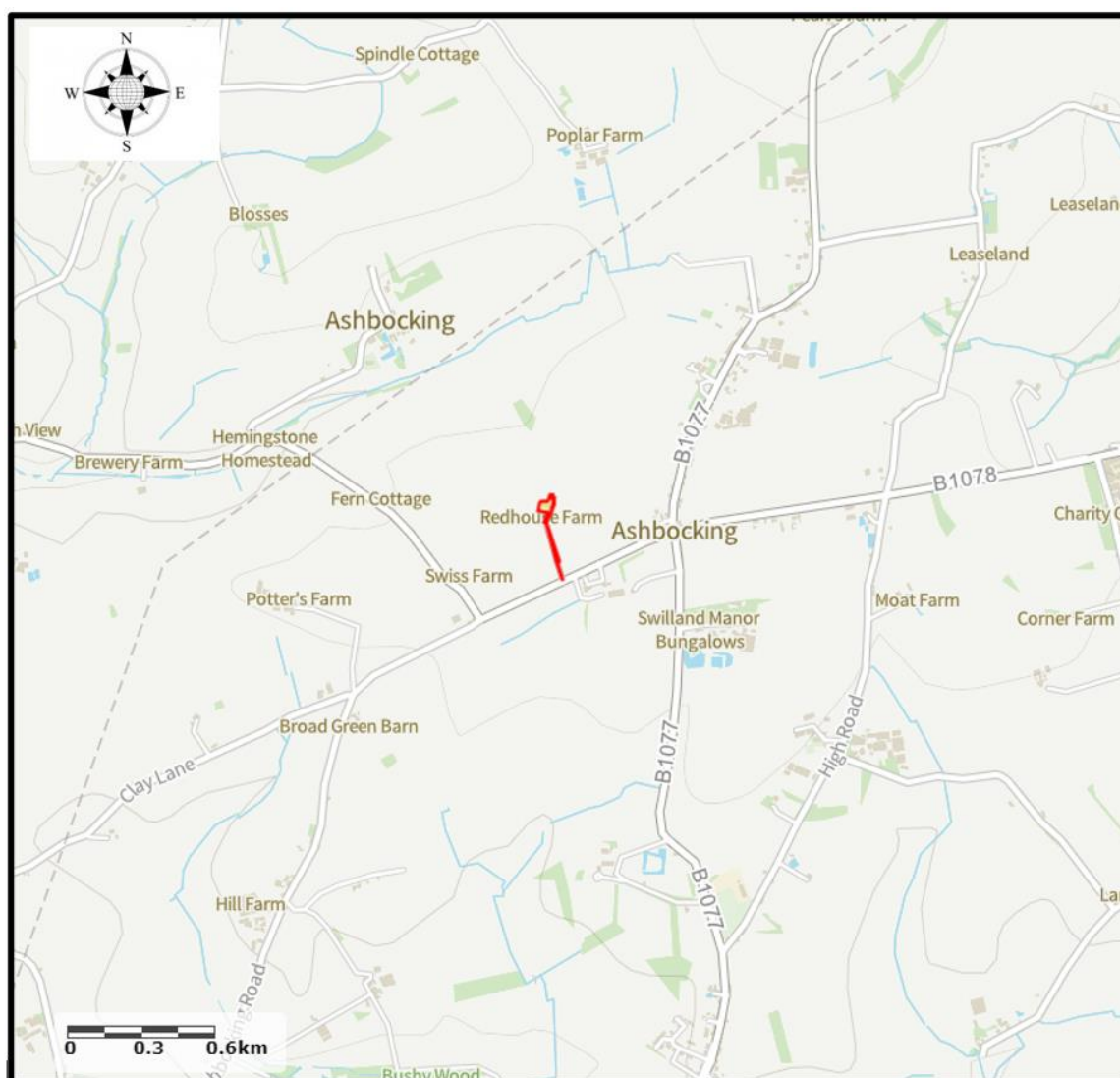


Figure 1. Site location (outlined in red). Ordnance Survey - Crown Copyright under licence 100022861.

2.4 Relevant legislation

Protected species, as referred to within this report, are those protected under European Legislation (Conservation of Habitats and Species Regulations 2010, as amended) and UK legislation (Wildlife and Countryside Act 1981; Protection of Badgers Act 1992); and those of principle importance in England as listed in Section 41 of the NERC Act (2006).

The National Planning Policy Framework (NPPF) (2021) places responsibility on Local Planning Authorities (LPAs) to aim to conserve and enhance biodiversity in and around developments. Section 40 of the NERC Act requires every public body to “have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”. Biodiversity, as covered by the Section 40 duty, is not confined to habitats and species of principal importance but refers to all species and habitats. However, the expectation is that public bodies would refer to the Section 41 list (of species and habitats) through compliance with the Section 40 duty.

Appendix IV details legislation which protects species and groups relevant to the Site (bats and birds).

3. Previous surveys

3.1. Desk Study

A desk study was undertaken by BASEcology ltd in 2015 to obtain and review records of protected / notable species and habitats within a defined search area from the centre of the site. The search radius was 1 km for statutory and non-statutory designated sites and protected / notable species, and 500 m for Habitats and Species of Principal Importance and Biodiversity Action Plan (BAP) priority habitats and species. The respective search radii were considered suitable for the scale and type of the proposed development.

3.2. Field Surveys

18/03/15- Preliminary Ecological Appraisal and Preliminary Roost Assessment- BASEcology Ltd.

- No statutory designated sites were highlighted within the respective search radii of the desk study.
- One Habitat of Principal Importance, good quality semi-improved grassland (also listed as UKBAP and SBAP priority habitat), was identified within a 500 m search radius (c.400 m south-east of the site on the far side of the B1078 Road).
- Suffolk Biological Information centre (SBIS), formerly known as Suffolk Biological Records Centre (SBRC) returned records of rare and protected plants, invertebrates, birds, otters and water voles within the search radius, none of which are within or close to site and were not of substantial concern.
- Eleven habitats were identified during the Extended Phase 1 Habitat Survey including scattered broadleaved and coniferous trees, dense and scattered scrub, amenity grassland, ornamental shrubs, species-rich hedgerow with trees, species-poor hedgerow with trees dry ditch, and buildings and hardstanding. However, the proposed development site comprises of only the central surveyed area of site, which is predominately hardstanding and buildings (not BAP priority habitats).
- A pond was recorded within the survey area (but not within the proposed construction site boundary). This was densely stocked with common carp and was considered unlikely to have great crested newts. Habitats onsite were predominately hardstanding and, even if GCN were present, would be unlikely to be found onsite. Some amphibian species more tolerant to fish predation, such as common toads (*Bufo bufo*), had a greater chance of utilising the pond.
- The habitats on-site and within the immediate site environs provided opportunity for birds, and bats.

July and August 2015- Bat surveys- BASEcology Ltd.

1x common pipistrelles (*Pipistrellus pipistrellus*) recorded roosting on site on 15/06/15. This was considered a day roost and on the southern elevation of the mid-section of the warehouse complex. Species recorded foraging / commuting onsite but not roosting included soprano pipistrelles (*Pipistrellus pygmaeus*). A second survey undertaken on 20/08/15 recorded no emergences onsite.

2018- Updated Preliminary Ecological Appraisal - BASEcology Ltd.

- An updated PEA was conducted on 11/01/18 to establish whether conditions onsite remain unchanged since previous visits, particularly regarding bird nesting and bat roosting potential.
- The updated report found no observed structural changes to the modified barn, annexes, or outbuildings, or signs of bats present (including within and around the previous small common pipistrelle *Pipistrellus pipistrellus* day roost recorded in 2015). The potential for bats to be roosting onsite remained the same as the findings in the original PRA conducted in 2015, and as such, an updated bat survey was required prior to the commencement of works.

2021- Updated bat survey- BASEcology Ltd.

- In 2021, an updated dusk survey was undertaken in May to support a L1CL application. A single common pipistrelle potentially emerged from the eastern elevation of the mid-section. No bats were recorded emerging from the roost location discovered in 2015. A mitigation class licence (CL21, commonly known as a 'low impact' licence) was recommended for works. No significant structural changes since previous surveys were recorded.

4 Compensation & Enhancement Strategy

There are number of practices that can maximise biodiversity and are particularly relevant to this proposed development. This can be achieved by minimizing practices such as pesticides, planting flowers and trees, creating wildlife features such as providing artificial nesting and roosting sites. The indicative positions of the proposed new features can be seen in Appendix III.

4.1 **Bat boxes**

In addition to compulsory compensation detailed in a separate EPS CL21 licence application, atleast three additional bat boxes should be erected on nearby trees for crevice roosting bats such as common pipistrelles and soprano pipistrelles that have been recorded foraging and / or roosting on and adjacent to site. Exact designs are amendable, but DCS Ecology Ltd recommends the following:

- Kent bat box
- Woodcrete general purpose bat box

These boxes are self-cleaning and do not require ongoing maintenance.

If bat boxes are not to be erected by an ecologist, it is recommended that advice in Appendix V be followed prior to installation.

4.2 **Birds**

During previous surveys, suitable nesting habitat was documented within the survey area, which included areas within the current site boundary (accessible internal areas of the buildings, dense ivy clumps and small areas of vegetation). For enhancement, it is recommended that a minimum of six bird boxes be erected on nearby trees. Exact designs are amendable, but should include bird boxes designed for passerine birds such as:

- 2x Combined robin/wren open fronted boxes such as the Woodstone Barcelona Open Nest Box,
- 2x Sparrow terrace such as the Woodstone Build-in House Sparrow Nest Box; and
- 2x General purpose nest boxes such as the Woodstone Seville Box 28-32mm

Bird boxes should be cleaned out once a year after young birds have fledged. If a second brood follows, the nest box should be cleaned again in the late autumn.

Precise locations of boxes should be decided by a suitably experienced ecologist at the time of erection to ensure optimal situation and reduce effect of changing environmental conditions at the Site in the meantime. Monitoring checks and cleaning (as necessary) should

be undertaken on an annual basis, ideally September-December as this is immediately after the birds nesting season and young birds are likely to have fledged.

If bird boxes are not to be erected by an ecologist, it is recommended that advice in Appendix V be followed prior to installation.

4.3 **Hedgehogs**

After works have been completed, if any new fencing has been erected it will either be wide enough to allow hedgehogs continued access around the whole site or have gaps (at-least 13cm x 13cm) provided at the base of fences in several locations to facilitate the movement of hedgehogs.

The placement of 1x hedgehog box on land north of site would provide additional sheltering and hibernation opportunities for hedgehogs recorded within the local area (see figure 6 in appendices).

4.4 **Wildlife attracting planting**

Areas of wildflower meadow will be planted on land to the north-west of site, which will include native plant species to attract pollinating insects, form example Ox-eye daisy (*Leucanthemum vulgare*), wild angelica (*angelica sylvestris*), common honeysuckle (*Lonicera perichlymenum*), cornflower (*Centaurea cyanus*) or hemp agrimony (*Eupatorium cannabinum*).

Any additional hedgerow planted will be a selection of multiple native species, such as hawthorn (*Crataegus monogyna*), field maple (*Acer campestre*) or Guelder rose (*Viburnum opulus*). This will benefit a variety of species, but in particular provide nesting and foraging opportunities for birds.

4.5 **Amphibians**

To benefit amphibians such as common frog (*Rana temporaria*) and common toads (*Bufo bufo*), a bank containing a wood and earth embankment (see appendix II for illustration) should be created on the northern perimeter of the pond north of site to act as an amphibian hibernaculum (hibernation place). The hibernaculum is also likely to will also benefit invertebrate species and potentially reptiles.

4.6 **Other:**

Any trees (within surrounding habitats) retained through the development will be suitably protected from harm following guidance set out in BS5837 (2012).

5. Time Frames for Implementation

5.1. This Biodiversity Enhancement Strategy will be implemented during the construction phase. The persons responsible for ensuring that the Enhancement Strategy is adhered to at each phase have been allocated.

Enhancement feature	Start date	End date	Responsible personnel
Erection of bird & bat boxes & installation of hedgehog shelters	AUG 2023	NOV 2023	Site manager/ Contractors/ DCS Ecology Ltd
Vegetation planting (to be planted in suitable weather conditions above 5C	SEPT 2023	APR 2024	Site manager/ Contractors/ DCS Ecology Ltd
Works on buildings	COMPLETED MAIN WORKS		Site manager/ Contractors
Construction of hibernaculum	SEPT 2023	NOV 2023	Site manager/ Contractors/ DCS Ecology Ltd

6. References

BASEcology Ltd (2015a) Preliminary Ecological Appraisal Red House Farm, Ashbocking, Suffolk

BASEcology Ltd (2015b) Bat Surveys Red House Farm, Ashbocking, Suffolk

BASEcology Ltd (2018) Updated Preliminary Ecological Appraisal Red House Farm, Ashbocking, Suffolk

BASEcology Ltd (2021) Updated Bat Survey Red House Farm, Ashbocking, Suffolk

Bat Conservation Trust (2009) Bats and Lighting in the UK. Bats and the Built Environment Series

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SBIS (Suffolk Biodiversity Information Service (March 2015)) 1km Data search by BASEcology

Web references

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<http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx>

7. Appendices

7.1. Appendix I : Site photos prior to works



Photo ref 1. Eastern edge of mid-section of buildings (also showing eastern annexe). All buildings previously onsite have been demolished.



Photo ref 2. Western lean-to on mid-section

7.2. Appendix II: Compensation features examples:



Figure 1 : Eco Kent bat box

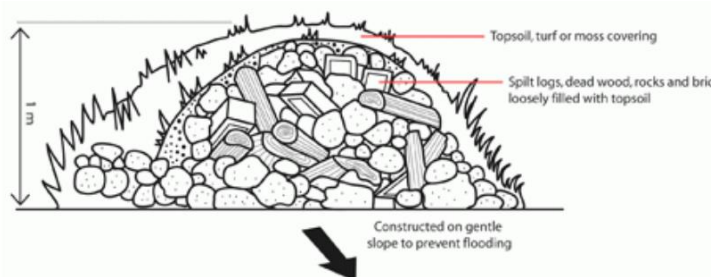


Diagram 2 : Example of amphibian hibernaculum

Source : <https://www.rspb.org.uk/>



Figure 2 : A frame Barn owl box dimensions.

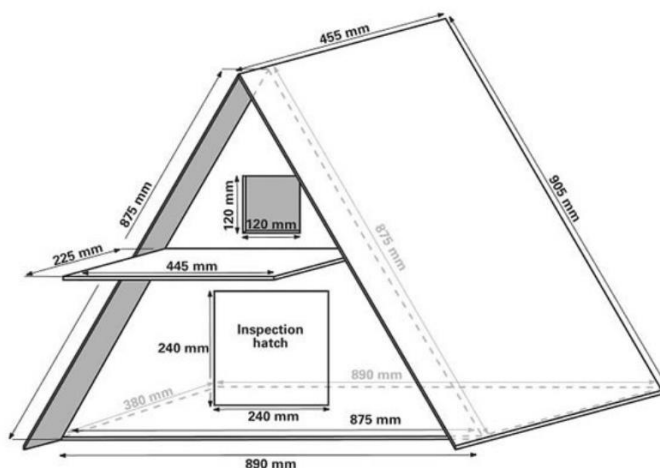


Diagram 2 : A frame barn owl box, typical dimensions.



Figure 3: Woodstone Barcelona Open Nest Box



Figure 4: WoodStone Build-in open nest box



Figure 5: Woodstone® Seville Box
28-32mm Hole.



Figure 6 : Hedgehog / Mammal House



Figure 7 Woodstone large multipurpose bat box

7.3. Appendix III: Figures

Location of Enhancement Features



7.4. Appendix IV: Relevant Protected Species Legislation

Species	Legislation	Protection
Bats	<ul style="list-style-type: none"> ▪ Conservation of Habitats and Species Regulations (2010) (as amended) ▪ Wildlife and Countryside Act (WCA) (1981), Schedule 5 (as amended) ▪ Wild Mammals Act (1996) 	<p>It is an offence to:</p> <ul style="list-style-type: none"> ▪ Intentionally kill, injure or take any bat ▪ Intentionally or recklessly disturb a bat ▪ Intentionally or recklessly damage, destroy or obstruct access to a bat roost.
Birds	<ul style="list-style-type: none"> ▪ Wildlife and Countryside Act (WCA) (1981) (as amended) 	<p>It is an offence to:</p> <ul style="list-style-type: none"> ▪ Intentionally kill, injure or take any wild bird ▪ Intentionally take, damage or destroy nests in use or being built ▪ Intentionally take, damage or destroy eggs <p>Species listed on Schedule 1 of the WCA (1981) are afforded additional protection, making it an offence to intentionally or recklessly disturb such species at, on or near an active nest.</p>

7.5. Appendix V: Supplementary information

Recommendations for installing bat boxes:

Source: Bat Conservation Trust (<https://www.bats.org.uk/our-work/buildings-planning-and-development/bat-boxes/putting-up-your-box>)

Bat boxes are more likely to be used if they are located where bats are known to feed. Ideally, several boxes should be put up facing in different directions on sunny aspects to provide a range of warm conditions

Boxes should be put as high as possible to try and avoid predation from cats on the ground or nearby structures. On buildings, boxes should be placed as close to the eaves as possible. Bats use dark tree lines or hedgerows for navigation, so putting boxes near these features could help bats find the box.

In summary, locate boxes:

- Where bats are known to feed and navigate (close to hedges and tree lines);
- Ideally at least 4m above the ground (where safe installation is possible);
- Away from artificial light sources (to protect them from predation); and
- Sheltered from strong winds and exposed to the sun for part of the day (usually south, south-east or south-west).
- Bats need time to find and explore new homes, and it may be several months or even years before boxes have residents – be patient! Once bats find a place they want to live they can return over and over again. Droppings on the landing area, urine stains around the lower parts of the box and chittering noises from inside on warm afternoons and evenings are signs of occupation.

Please note, as bats are vulnerable to disturbance and fully protected under UK law, boxes must only be opened by a licensed bat worker.

Recommendations for installing bird boxes:

(Sourced from British Trust for Ornithology www.bto.org and Manthorpe www.manthorpe.co.uk)

The highest priority when siting a nest box must be to provide a safe and comfortable environment in which birds can nest successfully. Tips for putting up a nest box:

- Boxes should be sited 1-3m from the ground, ideally on tree trunks but can be placed on the side of a shed or wall. Avoid areas where foliage obscures the entrance hole.
- Don't place boxes too close to another nest box of the same type, as this may promote aggressive behaviour between neighbours.

- Shelter your nest box from prevailing wind, rain and strong sunlight. The box should face between north and east, and angled vertically or slightly downwards to prevent rain entering.
- Make sure cats cannot get into the box.
- Keep nest box away from bird feeders.
- Use galvanized or stainless steel screws or nails. If fixing boxes to trees, galvanised wire can be used to tie the box to the trunk or hang it from a branch. Make sure to regularly inspect these fittings (every two or three years) to ensure the box remains securely attached. Tips for putting up house sparrow terraces and swift bricks/boxes:
 - Locate $\geq 5\text{m}$ high on the gable wall of the property and above the level of the insulation zone.
 - Where possible, install in locations that are unlikely to receive large amounts of direct sunlight during the hottest times of the day, ideal places include below the overhang of the verge and barge board.

7.6. List of Abbreviations

BAP	Biodiversity Action Plan
BLE	Brown long-eared
C PIP	Common Pipistrelle
S PIP	Soprano Pipistrelle
NATT	Natterer's Bat
BoCC	Birds of Conservation Concern
CIEEM	Chartered Institute of Ecology and Environmental Management
CWS	County Wildlife Site
ECoW	Ecological Clerk of Works
eDNA	Environmental DNA
EPS	European Protected Species
GCN	Great crested newt
HSI	Habitat Suitability Index
JNCC	Joint Nature Conservation Committee
LNR	Local Nature Reserve
LRC	Local Records Centre
MAGIC	Multi-Agency Geographic Information for the Countryside
NNR	National Nature Reserve
PEA	Preliminary Ecological Appraisal
PRF	Potential [bat] Roost Feature
RNR	Roadside Nature Reserve
SAC	Special Area of Conservation
SBIS	Suffolk Biological Information Service
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
WCA	The Wildlife and Countryside Act 1981 (as amended)