AEWC Ltd

Animal Ecology & Wildlife Consultants

# Ecological Enhancement Plan

## Former Arun Feeds

**Arun Mills**
**Sincox Lane**
**Shipley**
**RH13 8PT**

Annika Binet

23-110
June 2024

**AEWC Ltd Birch Walk, Lower Street, Fittleworth, West Sussex, RH20 1JE**
**Tel:08452 505585, info@aewc.co.uk , www.aewc.co.uk**

Registered in England and Wales No. 06527840

# Contents

1. Introduction ..... 3
2 Ecological Enhancement Plan ..... 5
3 References ..... 12

Figure 1: Showing the site location ..... 4
Figure 2: Aerial view of the site showing the site boundary ..... 4
Figure 3: Proposed site plan ..... 5
Figure 4: Proposed ecological enhancements ..... 11

| | |
|---|---|
| Author | Annika Binet |
| Authorised by | Brigitte de Coriolis |
| Report and version number | 23-110-EEP-v1 |

This report has been prepared by AEWC Limited, with all reasonable skill, care and diligence within the terms of the Contract with the client. We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above. This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

The information and data which has been prepared and provided is true and has been prepared and provided in accordance with the 'Guidelines for Preliminary Ecological Appraisal' and 'Code of Professional Conduct' issued by the Chartered Institute of Ecology and Environmental Management (CIEEM). We confirm that the opinions expressed are our true and professional bona fide opinions.

# 1. Introduction

1.1 AEWC Ltd were commissioned by Oliver Hicks to produce an Ecological Enhancement Plan (EEP) for a site at Arun Mills, Sincox Lane, Shipley, RH13 8PT at grid reference TQ 11966 20781 to help inform the proposed development of the site.

1.2 A Protected Species Walkover Survey and habitat mapping for Biodiversity Net Gain calculations was conducted on the site in July 2023 by AEWC Ltd.

1.3 The site is approximately 0.49ha in size and contains degraded hard standing, tall ruderal vegetation, grassland and scrub. No further surveys were considered necessary, [redacted]

1.4 This enhancement plan has been designed in coordination with the client. Management of the habitats on site must be carried out for a minimum of 30 years in accordance with the National Planning Policy Framework requirements for Biodiversity Net Gain. Responsibility for carrying out all enhancement creation and future maintenance will be the responsibility of the client unless otherwise agreed within a section 106 agreement or similar.

***Site Location***

1.5 The proposed development site is at Arun Mills, Sincox Lane, Shipley, RH13 8PT at grid reference TQ 11966 20781. The site is located in a rural area of West Sussex between Billingshurst and West Grinstead. The surrounding landscape comprises a mosaic of agricultural land with small woodland blocks and residential and commercial development located throughout the area, in addition to the presence of connective tree and hedge lines throughout the area. See Figure 1.




**FIGURE 1: SHOWING THE SITE LOCATION**

1.6 The site is approximately 0.49ha and largely comprises degraded hard standing, tall ruderal vegetation, grassland and scrub. See Figure 2.




**FIGURE 2: AERIAL VIEW OF THE SITE SHOWING THE SITE BOUNDARY**

***Proposed development***

1.7 The proposed development plan involves construction of eight residential properties with associated gardens and parking. This will involve the removal of degraded hard standing. The development will include the creation of amenity gardens, hedgerow and tree planting and enhancement of retained scrub. The majority of the habitat area on site will be impacted by these proposals. See Figure 3.

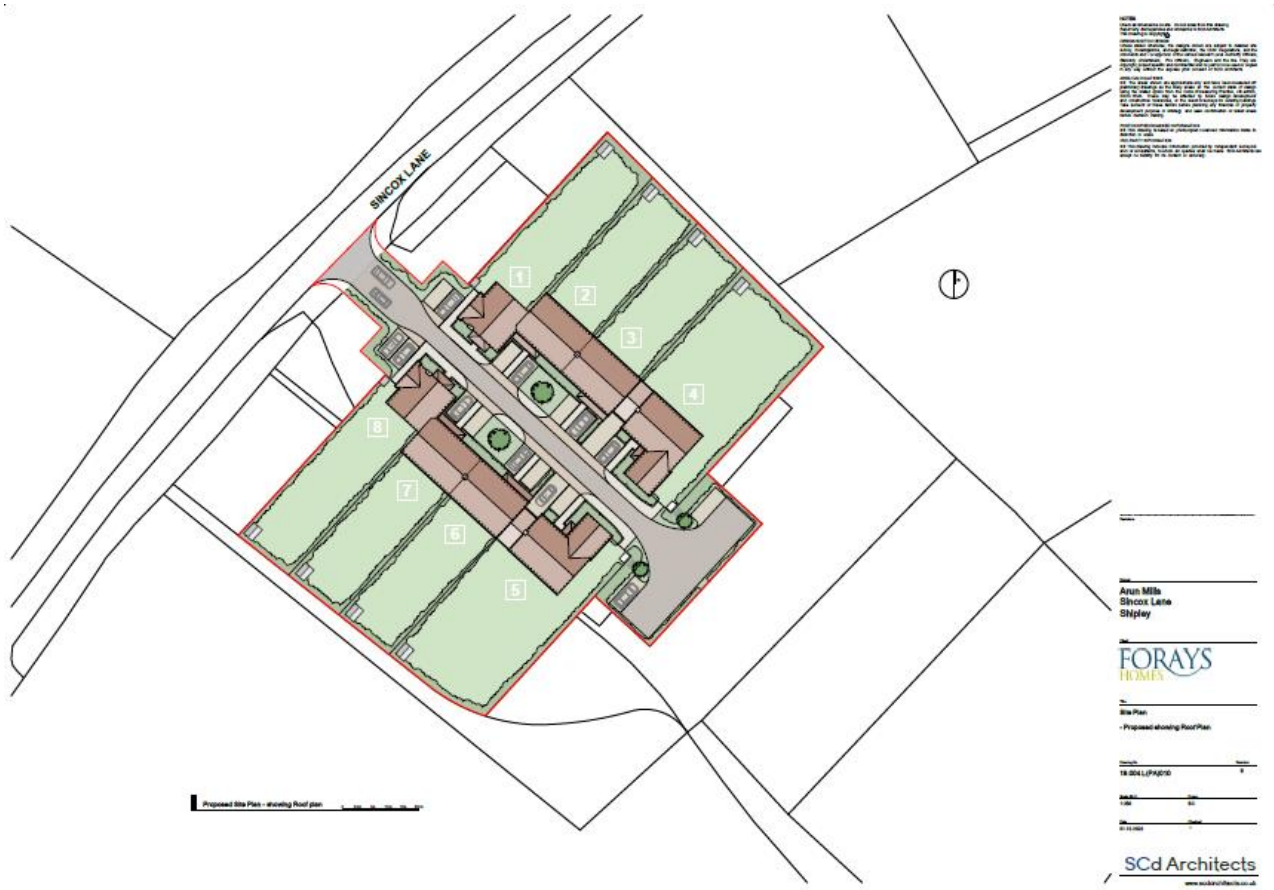



**FIGURE 3: PROPOSED SITE PLAN**

# 2 Ecological Enhancement Plan

2.1 In order to provide the background for providing advice on appropriate ecological enhancements given in this EEP, the findings of the PSWA are taken into account.

2.2 Habitat or species-specific recommendations are given in **bold** below. Ecological enhancements and proposed locations of features are illustrated in Figure 4.

***Habitat Protection and enhancement***

***General***

2.3 In order to enhance the habitat for wildlife, the **planting schemes for the proposed development will use native species or species with known benefit to wildlife** wherever possible.

2.4 In line with best practice, **the use of peat in composts or topsoil will be avoided**.

***Invasive Non-native species (INNS)***

2.5 The strategy for INNS adopts the three-stage hierarchical approach adopted by the Convention on Biological Diversity which details prevention, detection/surveillance and control/eradication as the three main ways of dealing with invasive species (with prevention given the highest priority).

2.6 **Prevention includes:**

- Awareness raising amongst the public, the public sector (e.g. highways maintenance) and potential commercial pathways such as aquaculture, horticulture and the transport industry.
- Bio-security measures (including changing existing working practices where appropriate).
- Horizon-scanning for potential new threats and risk analysis of species and pathways identified.

2.7 **Detection / surveillance:** It is important that the presence of invasive non-native species is detected early, and the risks they pose are rapidly assessed. The sooner action is taken to address any threat, the greater the chance of success and the less costly it will be both in terms of biodiversity and other resources.

2.8 **Mitigation, control & eradication:** For the minority of species that are having a substantial negative effect, there are several options. These include mitigation of their negative impacts (for instance by establishing refuges for threatened species), control of the species, or eradication of the species where practicable. Control may be achieved through a spectrum of action including containing a species within a limited area, preventing (or slowing) its spread and localised population reduction or eradication in particular areas.

2.9 Buddleia present on site is recommended for removal and control.

2.10 Invasive plant species can be treated and disposed of in a number of ways:

- Spraying with chemicals
- Pulling or digging out live, dead or dying plants
- Cutting back plants to prevent seed dispersal
- Burying them
- Burning them
- Off-site disposal at a registered facility

2.11 The method chosen should not endanger human health or the environment and native plant species should be re-established following removal of INNS. Government guidance of stopping INNS from spreading is available on the gov.uk website and should be followed.

***Hedgerows and trees***

2.12 All existing trees and hedges surrounding the site are being retained.

2.13 The proposed outline development includes hedgerow planting (corresponding to a biodiversity net gain for this linear habitat feature) between plots; this **planted hedging will comprise of species suitable for hazel dormouse by using a mix of native berry and nut-bearing species (i.e. such as beech, hawthorn, blackthorn and hazel).**

2.14 ‘Species Rich Mixed Native Instant Hedging’ is commercially available in 1m lengths where the plants are established and ‘knitted together’ and include at least 8 species (hawthorn, blackthorn, guelder rose, wayfaring tree, spindle, crab apple, holly, hazel, field maple and buckthorn) per 6m of hedging.

2.15 Additional native trees are proposed to be planted within the boundaries of the site.

2.16 **The retained trees, retained hedgerow and newly planted hedgerows and trees will all be protected from the works** area with heras fencing or similar in line with the dormouse method statement and tree protection zones. The fence will remain until the completion of all construction works and will be in line with BS 5837:12 to ensure all root protection zones are adequately protected.

***Hedgerow Management Plan***

2.17 **The existing boundary hedging should be rejuvenated through the addition of native fruit-bearing and flowering species where significant gaps are present. The new hedgerow planting should take place between October and March, and ideally January. Avoid planting in freezing weather or when the ground is waterlogged.**

2.18 Existing and newly planted hedges must then be trimmed once to twice a year for the first five years in winter, early spring or late autumn outside of nesting bird season (March to August), or at the end of summer to ensure a dense structure.

2.19 After the first five years, the hedging must then be cut on a three-year rotation, cutting no more than 1/3 of the hedging within the site each time, avoiding nesting bird season. Once established, each section of hedging should be trimmed on all sides every three years and should aim to be maintained at least 1.5m wide. Any large gaps which begin to appear should be planted up with suitable species.

2.20 This cutting regime will ensure that a good yield of berries and flowers are produced by the hedgerow every year and that diverse hedgerow structures and heights are present for wildlife within the local area.

***Planting and establishing trees***

2.21 Correct planting and aftercare are crucial to the long-term survival of the tree.

2.22 Bare-rooted trees should be planted between November and March, with the roots kept cool and moist before planting. Container trees can be planted throughout the year, but if planted in the summer they will need a lot more watering. Planting should not be carried out during periods of frost.

2.23 Prior to planting, vegetation must be cleared in a one-metre circle where the tree will be planted. Competition for water and nutrients can severely affect trees, particularly when young. This circle around the tree should therefore be kept clear of grass and weeds for at least three years after planting, through weed-suppressant matting, application of a thick mulch or regular weeding.

2.24 Where the soil structure is good, maidens can be notch-planted. For larger trees, and where soil structure needs to be improved, a hole of sufficient size to accommodate the roots without bending them is required.

2.25 Trees should be staked with a short stake of no more than 30 cm above ground level. This will allow the tree to flex and strengthen the trunk and roots. When planting, the final soil level must be no higher than the root collar. The tree should be watered regularly and thoroughly for the first few weeks and during any dry spells for the next year.

2.26 Tree guards will be required to protect trees from wild animals, which eat the leaves and bark, and rub against the tree. Guards should be checked regularly as the trees grow and adjusted if they are causing the tree any damage.

2.27 Once trees are established, the sward can be allowed to grow up to the trunk and there should be no need to apply fertilisers. Guards should be maintained for at least 10 years.

***Scrub***

2.28 **A strip a minimum of 2m wide will be left uncut along the north-east and south-west boundaries of the site to allow existing scrub to mature and spread, in order to create a more complex habitat environment suitable for a greater variety of faunal species.**

2.29 Scrub should be managed through the removal of individual bushes, or bramble patches as required in order to maintain a scattered scrub habitat. The scrub habitat should be managed on a minimum of a 4-year cycle, with no more than one quarter of the scrub band removed in any given year, this should take place in September/October to fall outside of the bird nesting season, but prior to the hibernation period when hibernating amphibians, reptiles and hedgehogs may be present.

2.30 Rank species such as common nettle, spear thistle, creeping thistle, broad-leaved dock, curled dock and common ragwort will be controlled if they begin to dominate; this can be achieved by a spring cut as necessary, spot-spraying or hand pulling. Tree saplings and scrub will be allowed to colonise the area without significant management intervention initially. Should scrub management be deemed necessary to allow saplings to thrive, this will be done through rotational cutting, avoiding key saplings. Additional native tree planting can be used to speed up reforestation if required.

***Species Enhancement***

***Reptiles and amphibians***

2.31 **To enhance the site for reptiles and amphibians a 'hibernaculum' will be created in the scrub band in the south-east corner of the site adjacent to suitable foraging and basking habitat for reptiles.** This will use materials such as logs, inert hardcore, bricks or building rubble to form the body of each hibernaculum, ensuring that materials likely to decompose are not placed beneath bricks or rubble to avoid collapse. Woodchips or soil may be incorporated to fill some of the larger cavities within the structure.

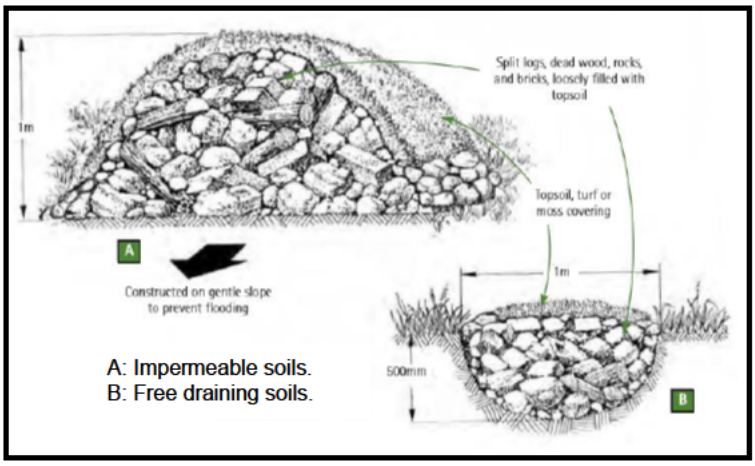


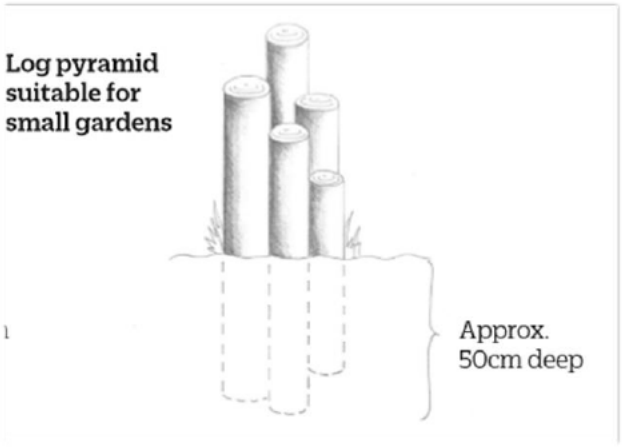



*Diagram from Great Crested Newt Conservation Handbook*

***Stag Beetles***

2.32 **A log stack will be created in a discrete corner in the south-west of the site to provide dead wood habitat features for stag beetle another species.**

2.33 A suitable logpile comprises of a variety of lengths of hard wood at least 5cm in diameter, this should be sighted in partial shade and the wood partially buried to prevent it drying out. See below diagram and picture below from the PTES 'how to build a loggery' factsheet, (*https://ptes.org/get-involved/wildlife-action/help-stag-beetles/*)






***Birds***

2.34 **Appropriate bird boxes will be installed on site.**

2.35 **A minimum of 8 small bird nest boxes (i.e. minimum 1 per plot) will be integrated into the proposed buildings on site to enhance the suitability of the site for nesting birds.**

2.36 Bird boxes will be woodcrete or similar hard-wearing material (rather than the less durable wooden boxes) to ensure longevity and prevent any maintenance requirements.

2.37 Integrated bird boxes should comprise of swift bricks which are suitable for a range of species (below left), these should be installed at a minimum of 4m above the ground, north or east facing and with open flight access, or sparrow terraces (below centre) which should be installed in line with vegetation such as trees or hedge lines to allow the birds the use of jumping off points and be installed a minimum of 3m above the ground on a north or east elevation.





***Bats***

2.38 **A minimum of 4 appropriate bat boxes will be integrated into the new properties on site to enhance the suitability of the site for roosting bats.**

2.39 Bat boxes will be woodcrete or similar hard-wearing material (rather than the less durable wooden boxes) to ensure longevity and prevent any maintenance requirements and facing in different directions to provide a range of conditions. They should be at least 4m above the ground (where safe installation is possible) and sheltered from strong winds and exposed to the sun for part of the day (usually south or south-west).

2.40 Example integrated bat boxes are shown below: Integrate Eco Bat Box (below left), Habibat Bat box - Plain for rendering (below centre) and a Schwegler 1WI Summer and Winter bat box (below right) or similar bat boxes.







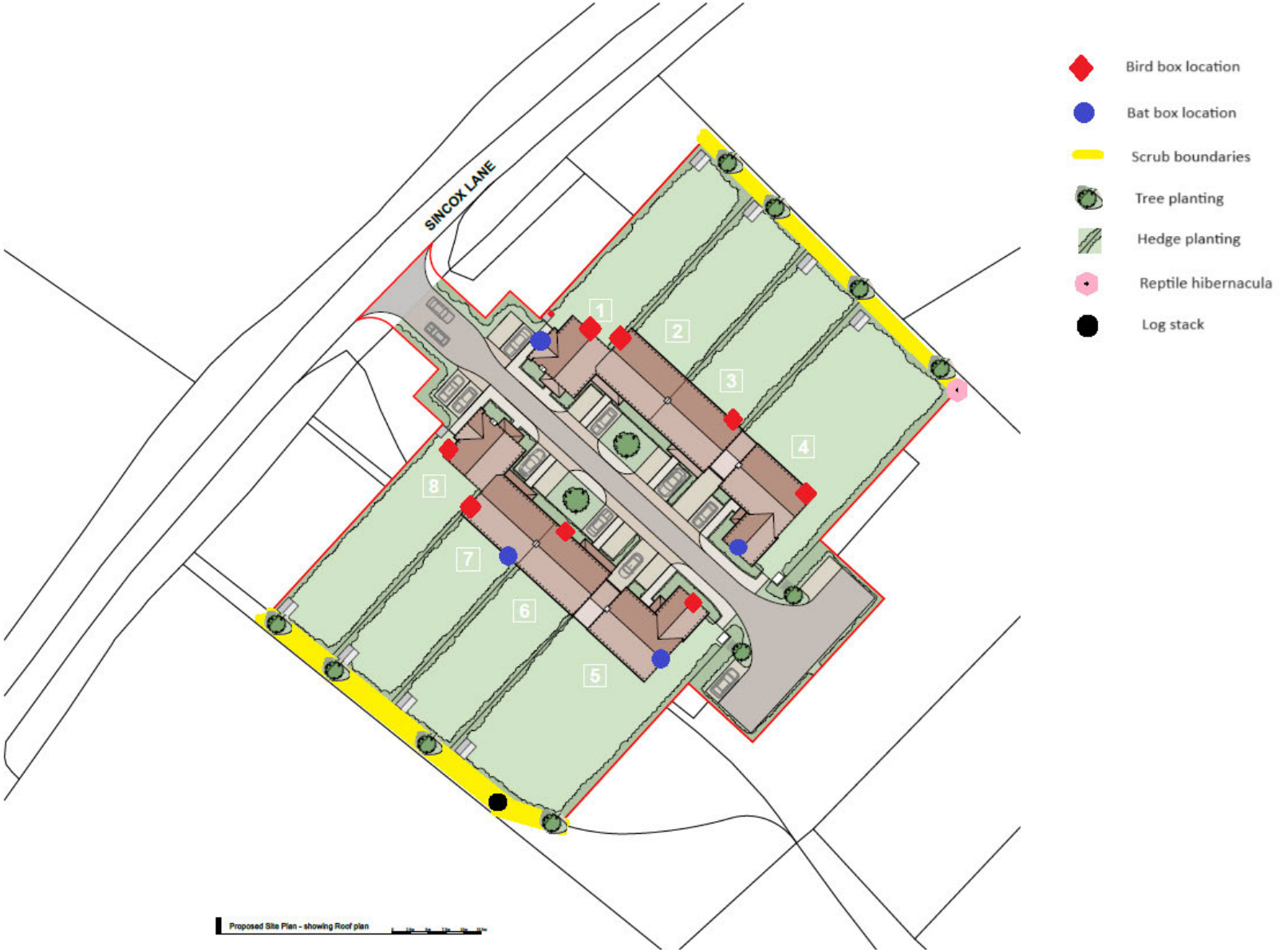



**FIGURE 4: PROPOSED ECOLOGICAL ENHANCEMENTS**

# 3 References

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

CIEEM (2021) *Good Practice Guidance for Habitats and Species*. Chartered Institute of Ecology and Environmental Management, Winchester

CIEEM (2013) *Competencies for Species Survey guidance documents*. Chartered Institute of Ecology and Environmental Management, Winchester

CIEEM (2018) *Professional Guidance Series: Guidance on metadata Standards: Reporting, sharing and archiving ecological data.* Chartered Institute of Ecology and Environmental Management, Winchester

CIEEM (2017) *Guidelines on Ecological Report Writing.* Chartered Institute of Ecology and Environmental Management, Winchester

CIEEM (2018) *Technical Guidance Series. Guidelines for Preliminary Ecological Appraisal.* Chartered Institute of Ecology and Environmental Management, Winchester

CIEEM (2022) *Code of Professional Conduct*. Chartered Institute of Ecology and Environmental Management, Winchester

Department for Communities and Local Government (2021) *Technical Guidance to the National Planning Policy Framework.* Department of Communities and Local Government, London.

Department for Communities and Local Government (2021). *National Planning Policy Framework.* Department of Communities and Local Government, London.

ODPM (2005) *Government circular: biodiversity and geological conservation – statutory obligations and their impact within the planning system.* The Stationary Office.
RIBA Publishing (2013) *Designing for Biodiversity: A technical guide for new and existing buildings (second edition).* RIBA Publishing, London.

Edgar, P., Foster, J. and Baker, J. (2010). *Reptile Habitat Management Handbook.* Amphibian and Reptile Conservation, Bournemouth.

Mitchell-Jones, A.J., (2004). *Bat Mitigation Guidelines.* English Nature, Peterborough.

Natural England (2011). *Reptile Mitigation Guidelines.* Natural England.