Woolbro Group and Morris Investment

Land West of Station Road, Lingfield

Ecological Appraisal

Draft report
Prepared by LUC
March 2022

Woolbro Group and Morris Investment

Land West of Station Road, Lingfield
Ecological Appraisal

Version	Status	Prepared	Checked	Approved	Date
1.	First issue	D. Green	D. Green	P. Lawrence	01.02.2018
2.	Updated following 2020 walkover	D. Green	D. Green	D. Green	14.09.2020
3.	Updated following 2022 walkover	T. Hicks	D. Green	D. Green	03.02.2022
4.	Updated following client feedback	T. Hicks	D. Green	D. Green	04.03.2022

Bristol
Edinburgh
Glasgow
London
Manchester

landuse.co.uk

Land Use Consultants Ltd
Registered in England
Registered number 2549296
Registered office:
250 Waterloo Road
London SE1 8RD

100% recycled paper

Landscape Design
Strategic Planning & Assessment
Development Planning
Urban Design & Masterplanning
Environmental Impact Assessment
Landscape Planning & Assessment
Landscape Management
Ecology
Historic Environment
GIS & Visualisation

FS566056
EMS566057
OHS627041

Landscape Institute Registered Practice

Contents

Chapter 1
Introduction

1.1 In August 2017, LUC was appointed by Woolbro Group and Morris Investment to undertake an Ecological Appraisal of an area of land comprising several pastoral field enclosures in Lingfield, Surrey (hereafter referred to as 'the Site'). The appraisal was required to inform a planning application to develop housing at the Site and comprised a desk study, an Extended Phase 1 Habitat survey, an initial bat assessment of trees and further protected species surveys and assessment including for bats, dormouse *Muscardinus avellanarius*, badger *Meles meles*, great crested newt *Triturus cristatus* and reptiles.

1.2 Updated site walkover surveys were completed in July 2020 and January 2022 to assess whether the Site conditions remained the same as previously reported and whether the conclusions previously reached remain accurate and robust. This report provides an updated appraisal to inform an revised scheme.

1.3 The scheme upon which this Ecological Appraisal has been based is provided in **Appendix A**. Ecological findings were used to inform ongoing scheme design as part of an iterative process, enabling potential impacts to be avoided and minimised wherever possible through sensitive design. This includes the protection and retention of key ecological corridors within the Site, including tree lines, trees with suitability to support roosting bats, and the majority of hedgerows, while focusing the development footprint to areas of regularly mown species-poor improved grassland.

1.4 This report presents the findings of the ecological surveys, provides recommendations for avoidance through sensitive scheme design, and sets out avoidance and mitigation measures to minimise potential impacts. In addition, recommendations are provided which identify opportunities to provide ecological enhancement in accordance with the National Planning Policy Framework (NPPF).

1.5 This report has been prepared for the exclusive use of Woolbro Group and Morris Investment. No part of this report should be considered as legal advice.

Site Description

1.6 The Site boundary is shown in the Extended Phase 1 Habitat Survey plan in **Figure B.1, Appendix B**.

1.7 The Site is located at the southeast edge of Lingfield (central grid reference TQ 39176 43643), in Tandridge District, Surrey. The Site comprised several field enclosures characterised by agriculturally improved grasslands typically enclosed and separated by hedgerows with occasional trees.

1.8 The Site was bordered to the south by the B2028 and to the southeast by Station Road. The northwest of the Site was bordered by several large private gardens and the Church Graveyard, comprising a mosaic of scrub, grasslands and broadleaved woodland. The Site was enclosed to the north, southwest, east and west by private residential dwellings and gardens.

Policy and Legal Considerations

1.9 This report has been prepared in accordance with relevant legislation and policy. Further detail is provided in **Appendix C.** The primary documents of relevance are outlined below:

- The Wildlife and Countryside Act of 1981 (as amended)
- The Countryside and Rights of Way Act (CRoW Act), 2000 (as amended)
- The Natural Environment and Rural Communities Act 2006 (NERC Act)
- The Conservation of Habitats and Species Regulations 2017
- Hedgerows Regulations 1997 (1997/1160)
- The Protections of Badgers Act 1992
- The National Planning Policy Framework (July 2021)
- Tandridge District Core Strategy (adopted October 2008)
- Tandridge District Council. Tandridge Local Plan, Part 2: Detailed Policies 2014 – 2029 (adopted July 2014)
- Tandridge District Council. Our Local Plan: 2033 (emerging)

Chapter 2
Methodology

2.1 The methods adopted in the baseline surveys and appraisal are outlined below. They accord with good practice guidance documents for survey and appraisal produced by the Chartered Institute of Ecological and Environmental Management[1] and the British Standards Institute[2].

Desk Study

2.2 A desk study was completed as part of a previous Preliminary Ecological Appraisal (PEA) of the Site undertaken by Applied Ecology Ltd[3]. Given the simplicity of the habitats present, the suburban location of the Site and the completion of appropriate protected species surveys, it was considered valid for the purposes of informing this appraisal.

2.3 To provide additional background to the appraisal and to highlight likely features or species groups of interest, a study of available biological records was undertaken to identify sites designated for their nature conservation value, and existing records of protected or notable species of relevance to the site. A search of the following resources was undertaken, within a 2km radius from the centre of the Site.

- Multi-Agency Geographical Information for the Countryside[4] (MAGIC) for designated sites and ancient woodland
- Ordnance Survey (OS) mapping.
- Aerial photography.
- Surrey Nature Partnership River Biodiversity Opportunity Area Policy Statements[5]

2.4 The absence of a species from biological records cannot be taken to represent actual absence. Species distribution patterns should be interpreted with caution as they may reflect survey/reporting effort rather than actual distribution.

[1] CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal. 2nd Edition*. Chartered Institute for Ecology and Environmental Management, Winchester.
[2] BSI (2013). *BS 42020:2013: Biodiversity – code of practice for planning and development*. British Standards Institution, Bristol.
[3] Applied Ecology Ltd (2016). *Land at Station Road, Lingfield. Preliminary Ecological Appraisal.*
[4] Defra. *Magic Map*. [Online]. Defra, Hampshire. Accessed 24 January 2022. Available at: https://magic.defra.gov.uk/
[5] Surrey Nature Partnership (September 2019) Biodiversity Opportunity Areas. Appendix 9: River Biodiversity Opportunity Area Policy Statements

Extended Phase 1 Habitat Survey

2.5 A Phase 1 Habitat Survey was undertaken within the Site boundary in line with standard methods set out by the Joint Nature Conservation Committee[6]. The Phase 1 Habitat Survey provides a rapid means of classifying broad habitat types in any given terrestrial site.

2.6 The survey was 'extended' to consider the suitability of the Site to support notable or protected flora or fauna. Species considered included those identified during the desk study, or those considered appropriate by the surveyor during the survey. Detailed surveys were not completed for these species; however, based on an understanding of species ecology, consideration was given to the Site's potential to provide sheltering or foraging habitat and/or connectivity to allow dispersal between populations. Further information is provided in the 'Results' section below.

2.7 The survey also noted any presence of common invasive non-native species.

2.8 The survey was undertaken on 8th September 2017 by David Green BSc MCIEEM. Weather conditions were mild and overcast with occasional showers.

2.9 A site walkover was undertaken by David Green on 14th July 2020 to verify the current conditions of the Site and that the findings of the Phase 1 Habitat Survey in 2017 remain valid. Weather conditions were warm and sunny.

2.10 The most recent updated site visit was completed by Tom Hicks BSc Qualifying Member of CIEEM on 12th January 2022 and confirms that the Site conditions remain consistent with previous findings as a result of the continuation of longstanding site maintenance and management. Weather conditions during the survey cool and sunny.

Protected Species

Bats

Habitat Assessment

2.11 During the Extended Phase 1 Habitat survey and subsequent update walkovers in 2020 and 2022, the Site and its immediate surrounds were assessed for its suitability to support foraging, commuting and roosting bats.

Preliminary Ground Level Roost Assessment

2.12 At the same time as the Extended Phase 1 Habitat survey, a preliminary ground level bat roost assessment was undertaken of trees within and adjacent to The Site. The surveys were undertaken in accordance with Bat Conservation Trust (BCT) Guidelines[7].

2.13 An update survey was undertaken on 12th January 2022 by Tom Hicks. Weather conditions during the survey cool and sunny.

2.14 The assessment comprised a detailed search from ground level of external features with potential to support access points and roosting places suitable for bats, and to locate evidence of bat activity, such as droppings, staining, feeding remains and presence of bats (live/dead specimens). All features were examined from ground level using a high-powered torch and binoculars.

2.15 Where features were recorded, these were classified in accordance with BCT guidelines[7]. These categories are summarised in **Table 2.1**, below.

Table 2.1: Bat Roost Suitability Categories

Bat Roost Suitability Category	Roosting Habitat Features	Commuting and Foraging Habitat Features	Survey Requirements
Negligible	Negligible habitat features likely to support roosting, commuting or foraging bats.		No surveys required
Low	Structures and trees in this category offer one or more roost site that, due to their space, shelter or conditions, offer roosting potential for a range of species. Roosts may be more permanent, rather than opportunistic. Small maternity roosts	Habitat on and around The Site is well-connected to wider continuous habitat and offers commuting and foraging habitat to a larger number of bats across several species. (e.g. tree lines or linked gardens in the urban context,	One dusk and one dawn survey required for both structures and trees. Tree-climbing may be an appropriate

[6] Joint Nature Conservation Committee (2010). *Handbook for Phase 1 habitat survey - a technique for environmental audit*. JNCC, Peterborough.

[7] Collins, J. (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition)*. The Bat Conservation Trust, London.

Bat Roost Suitability Category	Roosting Habitat Features	Commuting and Foraging Habitat Features	Survey Requirements
	of common species may form in one of these roost sites.	or continuous hedge/ tree lines and watercourses in an agricultural setting)	alternative to dusk and dawn surveys.
Moderate	Structures and trees in this category have one or more potential roost sites that are suitable for large number of bats. Roosts are likely to be permanent and include maternity roosts. Potential roost sites exist for a wide range of species or species of particular conservation interest.	Habitat on and around The Site is diverse, continuous and linked to extensive suitable habitat. This category includes well-vegetated rivers, streams, hedgerows and woodland edge. Habitat is sufficiently diverse to offer opportunities to a wide range of species or those of particular conservation interest.	Three surveys, including both dusk and dawn surveys. Tree-climbing may be an appropriate alternative to dusk and dawn surveys.
High	Structures and trees in this category offer one or more roost site that, due to their space, shelter or conditions, offer roosting potential for a range of species. Roosts may be more permanent, rather than opportunistic. Small maternity roosts of common species may form in one of these roost sites.	Habitat on and around The Site is well-connected to wider continuous habitat and offers commuting and foraging habitat to a larger number of bats across several species. (e.g. tree lines or linked gardens in the urban context, or continuous hedge/ tree lines and watercourses in an agricultural setting)	One dusk and one dawn survey required for both structures and trees. Tree-climbing may be an appropriate alternative to dusk and dawn surveys.

Nocturnal Activity Surveys

Transect

2.16 Activity transect surveys were carried out to provide a 'snapshot' of bat activity across the Site. Transects surveys were carried in early October 2017 to provide an overview of bat activity within the Site as a whole, whilst also identifying levels of bat activity in specific areas.

2.17 The transects incorporated key habitat features likely to provide opportunities for bat foraging and commuting, such as woodland edges and tree lines, with a particular focus on areas likely to be affected by development proposals, including internal hedgerows and tree lines.

2.18 The transects were walked at a suitably slow pace along the transect route. Surveyors recorded bat activity, noting time, species, direction of flight and behaviour and any other incidental information.

2.19 Surveyors carried Bat Box Duet heterodyne detectors and Anabat Express frequency division detectors. Bat sonograms were logged for subsequent analysis and species identification using Analook software (if required).

2.20 The transect began 15 minutes prior to sunset and continued until two hours after sunset. Transects were completed during suitable weather conditions for bats (dry and mild).

2.21 A plan showing transect routes is provided in **Figure D.1, Appendix D**. Detailed survey timings and weather conditions are provided in **Table D.1, Appendix D**.

Static Monitoring

2.22 To provide additional data on bat activity across the Site a Static Monitoring Point (SMP) survey was carried out in September 2017.

2.23 SMP locations were chosen to incorporate strategic features in the landscape likely to be of greatest importance for commuting and foraging across the Site. The SMP locations included a hedgerow in the west of the Site (SMP1) and a hedgerow in the centre of the Site (SMP2). Anabat Express detectors were left out for five consecutive nights to collect sufficient data for analysis.

2.24 SMP locations are shown in **Figure D.1**, **Appendix D** Detailed dates and weather conditions are provided in **Table D.3**, **Appendix D**.

2.25 No additional static monitoring was required in 2020 because site conditions remained as previously described and given the nature of the proposed scheme which retains habitat features of importance, and the relatively sub-optimal conditions of the majority of habitats directly affected (e.g. regularly mown species-poor grasslands) usage by bats would not be expected to have changed and the survey effort remains proportional and appropriate to the potential level of impact.

Badger

Habitat Assessment

2.26 Badger surveys were undertaken in line with good practice guidance[8,9].

2.27 The surveys involved a thorough walkover of the Site during which the surveyor searched for direct and indirect evidence of badger activity. Evidence searched for included:

- Setts and other resting sites
- Badger runs, tracks and prints
- Dung pits and latrines
- Foraging pits and snuffles holes
- Snagged and shed guard hair
- Scratching posts.

2.28 Particular attention was paid to areas of woodland, scrub and boundary habitats within the Site, especially areas with dry, well drained, sloping ground or banks. These are favoured by badger as they provide suitable areas for foraging and sett excavation.

2.29 An initial badger survey was undertaken on 8th September 2017 by David Green. Weather conditions were mild and overcast with occasional showers.

2.30 An update badger survey was undertaken by David Green on 14th July 2020. Weather conditions were warm and sunny.

2.31 The most recent update badger survey was undertaken on 12th January 2022 by Tom Hicks. Weather conditions were cool and sunny.

2.32 These surveys were supplemented by additional visits undertaken by suitably qualified ecologists in September and October 2017 as part of surveys for other protected species, including for reptiles and dormouse.

2.33 All evidence of badger activity was recorded using a GIS-enabled digital tablet, ensuring accuracy and precision were achieved when mapping features.

2.34 All setts identified were classified by the level and type of activity, and the number of entrance holes.

2.35 Sett classifications are summarised in **Table 2.2,** below.

Table 2.2: Classification of Badgers Setts

Sett Type	
Main	Normally a breeding sett, these usually have 5-20 entrances. These are large, well-established setts, normally in continuous use. They will often have large spoil heaps and ongoing activity will have worn vegetation away. Main setts will show many signs of badger activity, including hair, prints, tracks, paths and foraging. Each badger social group will normally use only one main sett and it will form the most likely location for the raising of cubs.
Annex	These setts are usually found in close association with the main sett (less than 50m), and will often be linked to it by a well-worn path. Where a second litter of cubs is born they will be raised in the annexe sett.
Subsidiary	Subsidiary setts will usually have five or more holes, although not all of these will be in continuous use. Subsidiary setts are normally within 150m of main setts and may play an important role in the function of the social group during distinct periods in the year.
Outlier	These setts are used on an occasional basis and will usually consist of only one to three holes. Spoil heaps will generally be smaller than those found associated with the other sett types, indicating a smaller underground structure.
Level of Activity	
Well Used	Holes are in regular use and are therefore free of debris. They may have been recently excavated and spoil heaps will be fresh.
Partially Used	Debris, including leaves, twigs and other vegetation clutter the entrance to these holes, indicating they are not in regular use. The holes can be used after a minimum of clearance.

[8] Harris, S., Cresswell, P. & Jefferies, D. (1989). *Surveying Badgers. An occasional publication by the Mammal Society*. No. 9. The Mammal Society, London.

[9] Andrews R. (2013). T*he classification of badger Meles meles setts in the UK: A review and Guidance for surveyors*. In Practice, Winchester [82] 27 – 31.

Disused	A considerable amount of clearance is needed before these holes can be used. The holes may become so blocked that only a depression in the ground is visible where the hole used to be.

Dormouse

Habitat Assessment

2.36 As part of the Extended Phase 1 Habitat Survey and subsequent update walkovers in 2020 and 2022, habitats within the Site were assessed for their potential to support dormouse. Suitability was based on professional judgement, by reviewing several factors including the potential for foraging and sheltering habitat, habitat connectivity and the presence of possible barriers to movement.

2.37 Habitats typically suitable for dormouse include:

- Deciduous woodland, with a dense understorey, species-rich shrub layer and thick ground cover.
- Hazel or sweet chestnut coppice.
- Species-rich hedgerows and scrub, particularly when connected to larger areas of suitable habitat such as woodland.

2.38 It should be noted that dormice may also be present in habitats considered to be sub-optimal such as conifer plantation, species-poor hedgerows and scrub, if such habitats are ecologically connected to more suitable dormouse habitat.

Presence/absence Survey

2.39 The Site was considered highly unlikely to be capable of supporting dormouse. Potentially suitable habitat for dormouse located within or connected to the Site, including parkland, woodland copses, tree lines, scattered trees and shrubs in gardens, scrub and hedgerows represents a total area of less than 4ha. The minimum area for sustaining viable dormouse populations is estimated to be 20ha and average population densities in hedgerows and woodlands are typically 1-2 dormouse per ha[10]. Furthermore, this total area of interconnected habitat in the wider area is comprised of numerous smaller fragmented and typically sub-optimal areas, and is completely isolated from other suitable dormouse networks in the wider landscape by the presence of the Lingfield urban area, main roads, open fields, main roads and railway. As a result, the habitat available within or adjacent to the Site is considered unlikely to be capable of supporting a viable population of dormouse.

2.40 Nevertheless, in accordance with a highly precautionary approach nest tubes surveys and nut searches of fruiting hazel were completed between September and November 2017 to provide additional certainty of this species absence from the Site.

2.41 On 20th September 2017, 41 nest tubes were deployed within suitable habitats including hedgerows and dense scrub at 10m intervals, in line within current good practice guidance[10]. A plan showing the locations of nest tubes deployed is presented in **Figure E.1**, **Appendix E**.

2.42 Locations were chosen on the basis that they supported the most suitable dormouse habitat within the Site, with potential to be directly affected by the proposed development. The tubes were checked in in September, October and November 2017. Nut searching was focused on fruiting hazel which was abundant in the central and southeast hedgerows within the Site.

2.43 No additional dormouse survey were undertaken in 2020 because site conditions remained as previously described and usage by dormouse would not be expected to have changed and therefore the survey effort remains proportional and appropriate to the potential level of impact.

Great Crested Newt

Habitat Assessment

2.44 The Extended Phase 1 Habitat Survey and subsequent update walkovers in 2020 and 2022 included a general assessment for the suitability of terrestrial habitat for GCN within and immediately surrounding the development footprint, and aquatic habitat within 500m. Suitability was based on professional judgement, by reviewing several factors including the potential for foraging, sheltering, and overwintering, habitat connectivity and the presence of possible barriers to movement.

Reptiles

Habitat Assessment

2.45 The Extended Phase 1 Habitat Survey and subsequent update walkovers in 2020 and 2022 included a general assessment of the suitability of habitats for reptiles within the Site. Suitability was based on professional judgement, by

[10] English Nature (2006). *The Dormouse Conservation Handbook and Interim Natural England Advice Note – Dormouse surveys for mitigation licensing – best practice and common misconceptions*

reviewing several factors including the potential for foraging, sheltering, and overwintering, habitat connectivity and the presence of possible barriers to movement.

2.46 Central areas of grassland were considered unsuitable for supporting permanent populations of reptile at the time of survey because they were regularly mown and lack the structural diversity typically required to support reptiles. Nevertheless, patches of grassland in central areas were considered likely to approach suitable habitat for reptiles in the short term and therefore such areas were included in the reptile survey in accordance with a precautionary approach.

Reptile Survey

2.47 A reptile survey was carried out between September and October 2017 with due consideration of best practice guidelines[11,12]. On 20th September 2017, 82 artificial refugia (comprising roofing felt mats of approximately 1m x 0.5m) were placed across the Site within habitats considered to be of greatest suitability for reptiles. This included rough grassland, tall herb and ruderal vegetation including bracken, and the edges of scrub and hedgerows. Optimal habitats were typically located at field boundaries where reduced management had allowed a suitable habitat structure to establish. Nevertheless, it was also necessary to establish whether reptiles were present within the wider grassland, and therefore, despite its relatively low suitability, areas of grasslands where the sward length was approaching a suitable condition were also sample. The locations of the refugia are illustrated in **Figure F.1**, **Appendix F**.

2.48 Artificial refugia were left for a period of 6 days to allow reptiles to become accustomed to them. The refugia were then checked on nine occasions in suitable weather conditions throughout September and October.

2.49 Suitable weather conditions are generally considered to be dry sunny spells after rainfall or periods of intermittent sunshine on warmer days, with temperatures between 10°C and 17°C. Further details including survey dates and weather conditions are provided in **Table F.1**, **Appendix F**.

2.50 No additional reptile survey were undertaken in 2020 because site conditions remained as previously described and given the nature of the proposed scheme which retains habitat features of importance, and the sub-optimal conditions of the majority of habitats directly affected (e.g. regularly mown species-poor grasslands) usage by reptiles would not be expected to have changed and the survey effort remains proportional and appropriate to the potential level of impact.

Nesting Birds

Habitat Assessment

2.51 As part of the Extended Phase 1 Habitat Survey and subsequent update walkovers in 2020 and 2022, habitats within the Site were assessed for their potential to support nesting birds. Suitability was based on professional judgement, habitats typically suitable for nesting birds include:

- Woodland;
- Dense scrub;
- Scattered trees; and
- Hedgerows.

Limitations and Constraints

General

2.52 It is important to note that ecological surveys provide information regarding the ecological baseline of a site for only a 'snapshot' of time. Therefore, if significant time lapses between the surveys and the further development or implementation of proposals updated ecological surveys may be required to identify any change in the baseline, such as natural succession of habitats, or local extinction or colonisation of species. Ecological surveys can generally be considered as up to date for 1 to 3 years dependent on the nature of the Site, ecological baseline and proposals and likely impact[13]. **Therefore, it is recognised that the survey data requires updating for bats, dormouse, badger and reptiles.**

2.53 Update surveys are scheduled for throughout 2022. However, the updated Phase 1 Habitat Survey in January 2022 confirmed that the Site conditions have not significantly changed since the protected species surveys were undertaken in 2017. Therefore, the previous survey data is considered sufficient enough to gain an general understanding of the ecological constraints of the Site.

[11] Herptofauna Groups of Britain and Ireland (1998) *Evaluating Mitigation/Translocation Programmes: Maintaing best practice and lawful standards. HGBI advisory notes for Amphibian and Reptile Groups 9ARGs)*

[12] Froglife (1999) *Reptile Survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice Sheet 10*, Halesworth.

[13] CIEEM (2019). *Advice Note: On the Lifespan of Ecological Reports and Surveys*. Chartered Institute for Ecology and Environmental Management, Winchester.

Bats

2.54 Bat activity surveys were restricted to September and October and therefore no data was collected during the spring and summer months when bat activity is typically at its peak. Nevertheless, the level of survey effort is considered proportional to the potential extent and magnitude of the effects associated with the proposed scheme. A review of habitat features likely to be of importance for bats was undertaken and was used to guide the scheme layout. This resulted in a sensitive design which retains and protects features likely to be of increased importance for bats, including linear habitat features, woodland edges and trees with potential to support roosts. Given the relative simplicity of the Site and lack of structural and species diversity of the improved grasslands which comprise the majority of the Site, it was considered possible to accurately interpret bat activity within the Site in the absence of spring and summer data. Therefore, the data collected is considered robust and appropriate to inform this appraisal. Should proposals change to result in the loss of notable areas of optimal habitat, including peripheral tree lines and hedgerows, mature trees, and woodland edges, the requirement for further survey should be reassessed.

Analysis Limitations

2.55 The data collected on the Anabats represents single bat call registrations. Registrations cannot be used to estimate the number of bat passes and it cannot always be ascertained if multiple passes in an evening represent multiple bats, or a single bat recorded repeatedly. Given the limitations to the data, caution is taken when reviewing the data and high numbers of bat passes are not automatically assumed to demonstrate use of a site by a large bat population.

2.56 The analysis of bat detector calls can be prone to subjectivity, but has been undertaken by experienced surveyors, following appropriate guidance and trained in bat call analysis. Bat species identification was interpreted using known call parameters and existing literature[14] on the ecology of UK bat species, including distribution, range, habitat associations and behavioural characteristics, in addition to professional judgement. Every attempt was made to identify bats to species level. However, it is not always possible to identify some *Myotis, Pipistrellus and Nyctalus* bats to species level. For example, differentiating between the echolocation calls of the common pipistrelle (which echolocate at a peak frequency of approximately 45kHz) and the soprano pipistrelle (which peaks at approximately 55kHz) is not always possible where recordings peak at the intermediate frequency of 50kHz. This is a widely accepted limitation and in such cases these passes are therefore classified at the Genus level only (i.e. *Pipistrellus* sp., *Myotis* sp., or *Nyctalus* sp.).

2.57 Particular care was taken when identifying members of the *Myotis* genus due to significant overlaps in their call parameters. These identifications should be considered as *Myotis* calls with the characteristics of the named species, based on comparison with a known call sequence from a bat flying in a similar situation, and should therefore be treated as highly likely, rather than definitive identifications.

Dormouse

2.58 In light of the location and connectivity of the Site within the landscape, the extent and quality of habitat present, and the retention of hedgerows, tree lines and woodlands around the Site periphery as part of scheme design, the likelihood of dormouse being affected by the proposed scheme was considered highly unlikely. Therefore, a reduced level of survey was completed in line with a precautionary approach. This included nest tubes surveys in September, October and November (optimal months), with additional nut searches of fruiting hazel completed in November 2017. As part of the iterative process of scheme design, the value of hedgerows was fully recognised and scheme design was updated to retain the majority of the central and western internal hedgerows, which provides further certainty that dormouse will not be affected by the proposed development scheme. As a result, the level of survey completed in 2017 together with professional interpretation of the Sites ecology and sensitive scheme design is considered suitably robust to enable an accurate prediction the effects, or lack thereof, on dormouse.

Reptiles

2.59 Reptile surveys should ideally be spread out as much as possible over the survey window, but were completed relatively late in the season (September and October). Nevertheless, autumn 2017 provided optimal weather conditions for reptile survey in southeast England and reptiles remained active well into November. Furthermore, a review of historical aerial imagery indicates that the main bodies of grassland within the Site have been subjected to regular mowing since 1999 (mowing lines are visible in all field enclosures in years 1999, 2000, 2001, 2005, 2009, 2013 and 2014), and given that regularly mowed grasslands are typically of low suitability for reptiles, and given the low suitability of main areas of grassland recorded during the reptile surveys, the surveys were considered to provide a suitably high level of confidence in terms of determining reptile presence/absence and relative distribution within the Site.

[14] Russ J. (2012). *British Bat Calls: A Guide to Species Identification*. Pelagic Publishing, Exeter.

Chapter 3
Results

Desk Study

Statutory and Non-Statutory Designated Sites

3.1 The findings of the desk study are presented in the **Tables 3.1** and **3.2** below. These tables list designated sites and relevant protected and notable species which have been recorded within a 2km search radius from the centre of the Site (TQ 39176 43643).

Table 3.1: Desk Study Findings – Designated Sites

Site Name	Designation	Qualifying Interest	Approximate Distance and Orientation from the Site
Statutory Designated Sites			
Centenary Fields and Lingfield Wildlife Area	Local Nature Reserve (LNR)	Designated in 2000 and includes a community orchard, a butterfly garden, ponds, new hedgerows and wildflower meadows. Known to support common lizard *Zootoca vivipara*, grass snake *Natrix helvetica*, slow worm *Anguis fragilis*, great crested newt *Triturus cristatus* and a variety of breeding birds.	310m northwest
Non statutory designated sites			
R02: Eden (& tributaries)	Biodiversity Opportunity Area (BOA)	Species of principle Importance within this BOA include a wide range of invertebrates, plants and vertebrates. These include brown hairstreak *Thecla betulae*, small heath *Coenonympha pamphilus*, dunnock *Prunella modularis*, cuckoo *Cuculidae*, song thrush *Turdus philomelos*, grass snake, slow worm, common toad *Bufo bufo*, great crested newt, brown long-eared bat *Plecotus auritus*, noctule *Nyctalus noctula*, otter *Lutra lutra*, soprano pipistrelle *Pipistrellus pygmaeus* etc. Objectives and targets for this BOA include priority habitat restoration and creation for rivers, floodplain grazing marsh, wet woodland and meadows. Priority species recovery is targeted for true fox-sedge *Carex vulpina*, great crested newt, lapwing *Vanellus vanellus*, otter and water vole *Arvicola amphibius.*	A small area in the southeast of the Site is part of this BOA
Lingfield Orchard	Site of Importance for Nature Conservation Importance (SINC)	Orchard, grasslands, hedgerows and scrub	600m northwest
Tom's field SNCI	SINC	Grasslands, hedgerows and scrub	600m northwest

Table 3.2: Desk Study Findings – Relevant Protected and Notable Species Records

Species Name	Status	Approximate Distance and Orientation of Nearest Record from the Site
Mammals		
Bats – eight species recorded	Cons Regs 2017, W&CA Sch5, NERC Act	<1km. No roost records within Site.
Brown hare	W&CA Sch7, NERC Act	<1km
Amphibians		
Great crested newt	Cons Regs 2017, W&CA Sch5, NERC Act	1km southwest
Reptiles		
Grass snake	W&CA Sch5, NERC Act	<1km
Invertebrates		
Stag Beetle	W&CA Sch5, NERC Act	<1km

Ancient Woodland

3.2 There were no records of ancient woodland identified as part of the desk study on-site or immediately adjacent to any boundary. The nearest ancient woodland is approximately 190m east of the Site.

Extended Phase 1 Habitat Survey

3.3 Habitat descriptions are set out below. A site walkover was completed in 2020 and 2022 which confirmed that the habitat descriptions are set out below remain consistent with the findings of the previous survey in 2017. Whilst considering this information reference should be made to the Phase 1 Habitat Survey Plan presented in **Figure B.1** and target notes in **Table B.1,** both within **Appendix B.**

Habitats (onsite)

Poor Semi-improved Neutral Grassland (B6)

3.4 The majority of the Site comprised improved and poor semi-improved neutral grassland dominated by a combination of Yorkshire fog *Holcus lanatus*, cock's-foot *Dactylis glomerata*, perennial rye-grass *Lolium perenne*, meadow foxtail *Alopecurus pratensis* and rough meadow-grass *Poa trivialis*. False-oat grass *Arrhenatherum elatius* was recorded as being locally dominant in central areas of fields where it was beginning to establish a more tussocky sward structure. The grassland was structurally poor, lacking diversity in the sward height and is regularly mown. The sward was also noticeably poor in terms of herb diversity with species being restricted to those associated with improved grasslands, including frequent creeping buttercup *Ranunculus repens*, common sorrel *Rumex acetosa* and dandelion *Taraxacum* agg., and occasional broad-leaved dock *Rumex obtusifolius* and creeping thistle *Cirsium arvense*.

Species-poor Hedgerows (J2.1.2 and J2.2.2)

3.5 Species-poor hedgerows separated the field boundaries and bordered the Site boundary along the northern, southeast and southern edge. Hedges were typically intact although those along the southern boundary included numerous gaps. Hedgerows were typically dominated by hazel *Corylus avellana* with abundant bramble *Rubus fruticosus*, hawthorn *Crataegus monogyna*, and blackthorn *Prunus spinosa*. Occasional to frequently occurring species included sycamore *Acer pseudoplatanus*, honeysuckle *Lonicera periclymenum*, yew *Taxus baccata*, privet *Ligustrum ovalifolium* and oak *Quercus robur*. Species abundance over a given length was below that required to be classified as species-rich but hedgerows overall supported several woody species and are likely to be long established features. A central hedgerow, running east-west and separating the northern and southern halves of the Site included a dry ditch and was bordered by a fringe of tall ruderal habitat and localised areas of rank

grassland. This hedgerow was approximately 2.5m in height and 2m in width. Hedgerows are regularly managed through cutting. An internal hedgerow in the southeast of the Site was more intensively managed by comparison and lacked structural diversity, being approximately 1m high by 0.5m wide, and supporting a relatively sparse growth structure.

Tall ruderal (C3.1)

3.6 Tall ruderal vegetation occurred at the edges of hedgerows and field corners where it typically comprised beds dominated by common nettle *Urtica dioica* with locally abundant creeping thistle, hogweed *Heracleum sphondylium* and rosebay willowherb *Chamerion angustifolium*.

Bracken (C1.1)

3.7 Areas dominated by bracken *Pteridium aguilinum* also occurred in the centre of the Site, comprising a fringe along the northern edge of the central hedgerow.

Dense Scrub (A2.1)

3.8 Dense scrub was scarce within the Site and was restricted to the northeast and northern edge of the Site where it formed a boundary with residential gardens adjacent to the Site. Blackthorn comprised the dominant species with locally abundant bramble and hawthorn.

Semi-natural Broadleaved Woodland (A.1.1.1)

3.9 A small area of semi-natural broadleaved woodland was recorded along the northern boundary which supported an historic pond and two large mature oak *Quercus robur* trees. The canopy was dominated by oak with occasional ash *Fraxinus excelsior*. Scrub species comprised abundant hazel, frequent bramble and rarely cherry laurel *Prunus laurocerasus*. Ground flora included abundant ivy *Hedera helix* and common nettle with rarely fern *Dryopteris* sp.

3.10 The historic pond was dry at the time of the survey despite periods of heavy rain preceding and during the survey. The dry depression of this former pond was devoid of aquatic macrophytes or vegetation indicative of seasonal inundation. Common nettle dominated with the addition of occasional mature elder *Sambucus nigra*, again indicating that this feature is no longer considered to be a pond.

Invasive Non-Native Species

3.11 Cherry laurel was recorded within the semi-natural broadleaved woodland to the north of the Site.

Adjacent to the Site

3.12 The Site was bordered to the south by the B2028 and to the southeast by Station Road. The northwest of the Site was bordered by several large private gardens and the Church Graveyard, comprising a mosaic of scrub, grasslands and broadleaved woodland. The Site was enclosed to the north, southwest, east and west by private residential dwellings and gardens.

The Wider Area

3.13 The wider area generally comprised open countryside with arable fields, pasture, woodland connected by a network of hedgerow, ditches and streams.

3.14 The Site was functionally connected to wider area by nearby ecological corridors including Eden Brook c. 50m east and a railway line c. 120m northeast.

Protected Species

3.15 The Phase 1 Habitat Survey was 'extended' to consider habitat suitability for protected and notable species.

Bats

3.16 Biological records identified eight species of bat within 1km of the Site.

Habitat Assessment

3.17 The habitats within and adjacent to the Site, including poor semi-improved grassland, hedgerow, scrub, scattered trees and woodland offer suitable habitat for roosting, foraging and commuting for a range of bats species.

3.18 The majority of the wider area supports habitats of moderate value for commuting and foraging bats.

Preliminary Ground Level Bat Roost Assessment

3.19 Trees present on Site were assessed for their bat roosting suitability (BRS) during the Phase 1 Habitat Surveys. As of the most recent survey on 12th January 2022 two trees were considered to have high BRS, three moderate BRS and one low BRS. All other trees were determined to have negligible bat roosting potential. A summary of trees with BRS is provided in **Table 3.3**.

3.20 A plan showing individual tree location is provided in **Figure D.1**, **Appendix D.**

Table 3.3: Summary of Preliminary Ground Level Bat Roost Assessment (as of 12th January 2022)

Tree ID[15]	Species	Description of Features	Bat Roost Suitability	Proposals
14	Oak	Large vertical fissure 15m high on southwest aspect. Likely to extend to sheltered cavity.	High	Retain
16	Oak	Multiple features with high potential to support roosting bats including woodpecker holes, splits, rot holes and loose bark	High	Retain
36	Oak	Mature tree with fissure on dead branch 15m high on west aspect.	Moderate	Retain
66	Oak	Mature tree covered in extensive and dense ivy growth with signs of decay noted in upper crown.	Moderate	Retain
67	Oak	Mature tree covered in extensive and dense ivy growth with signs of decay noted in upper crown. Horizontal fissure on dead branch 5m high on northeast aspect.	Moderate	Retain
1	Crack willow	No obvious features identified but the tree is in generally poor condition and may support features capable of supporting singleton roost.	Low	Retain

Nocturnal Activity Surveys

Transect Surveys

3.21 Transect routes are shown in **Figure D.1**, **Appendix D**. Full transect survey data is provided in **Tables D.1** and **D.2**, **Appendix D**.

General Observations

3.22 In general, bat activity was restricted to the edge of the Site, where foraging by low numbers of common pipistrelles *Pipistrellus pipistrellus* (usually individuals or pairs) was typically associated with mature oak trees at the Site periphery or offsite. Foraging by bat species over the open grassland was limited to occasional episodes by common pipistrelle.

Species Composition

3.23 Common pipistrelle comprised all but one of the records, which related to a single Natterer's bat *Myotis nattereri* flying along the southwestern site boundary where an ornamental hedges and scattered trees bordered the rear gardens of houses located along the B2028 Town Hill.

3.24 The species composition recorded across all transect routes is summarised in **Table 3.4** below.

Table 3.4: Species Composition Recorded Across all Transects Routes (October 2017)

Bat Species	Total Bat Passes	% of Total Bat Passes
Common pipistrelle	52	98%
Natterer's bat	1	2%

Variation Between Transects

3.25 The highest levels of bat activity were recorded in the northern transect accounting for 58% of the total bat passes. The southern transect had the highest species richness, albeit due to a single pass from Natterer's bat.

3.26 Variation in activity between transects are summarised in **Table 3.5** below.

Table 3.5: Total Bat Passes and Species Richness for Each Transect Route (October 2017)

Transect	Total Bat Passes	% of Total Bat Passes	Species Richness
Northern Transect	31	58%	1
Southern Transect	22	42%	2

[15] Tree ID correlates with the Tree Constraints Plan produced by SJA Trees. Drawing number: SJA TCP 21673-011. January 2022.

Static Monitoring

3.27 SMP locations are shown in **Figure D.1, Appendix D**. Full SMP survey data is provided in **Tables D.3 D.4**, and **D.5, Appendix D**.

Species Composition

3.28 The following species were recorded during static monitoring surveys:

Common[16]

- Common pipistrelle;
- Soprano pipistrelle *Pipistrellus pygmaeus*; and
- Brown long-eared *Plecotus auritus*.

Rarer[16]

- Nathusius pipistrelle *Pipistrellus nathusii*;
- Unidentified *Myotis* sp;
- Noctule *Nyctalus noctula*; and
- Leisler's *Nyctalus leisleri*.

3.29 Static monitoring surveys confirmed the presence of at least seven bat species at the Site, six of which were comprised of identifiable species, with records of bats from the genus *Myotis* also recorded but not identifiable to species level. The majority of records (66%) comprised common pipistrelle, whilst 20% of records were attributed to brown long-eared bat, representing a relatively high proportion for this species, which despite being common is usually relatively difficult to detect by call.

3.30 The species composition recorded across all SMPs is summarised in **Table 3.6.**

.

Table 3.6: Species Composition Recorded Across all Static Monitoring Points (September 2017)

Bat Species	Total Bat Passes	% of Total Bat Passes
Common pipistrelle	276	66%
Brown long-eared bat	85	20%
Myotis sp.	25	6%
Nathusius pipistrelle	14	3%
Soprano pipistrelle	9	2%
Leisler's	5	1%
Pipistrellus sp.	2	< 0%
Noctule	1	< 0%

Variation Between Static Monitoring Points

Western Hedgerow – SMP1

3.31 The highest levels of bat activity were recorded at SMP1 accounting for 59% of the total bat passes. SMP1 also had the highest species richness. The number of brown long-eared bat records was notably higher at the SMP1, which is probably a reflection of the more cluttered and sheltered foraging conditions typically favoured by this species.

3.32 A relatively low level of bat activity was recorded at SMP1 with an average of 40.7 registrations per night. Bat activity commenced between 13 - 45mins after sunset and was restricted to common pipistrelles, with the exception of a single noctule registration at 8 mins after sunset.

Central Hedgerow – SMP2

3.33 Relatively low levels of activity were recorded at SMP2 overall with an average of 29 registrations per night. All bat activity commenced between 0 - 9 minutes after sunset, with common and Nathusius pipistrelles being the first species recorded.

3.34 Variation in activity between SMPs are summarised in **Table 3.7** below.

[16] Wray, S., Wells, D., Long, E. and Mitchell-Jones, A. (2010). *Valuing Bats in Ecological Impact Assessment. In Practice*, 70: 23-25.

Table 3.7: Total Bat Passes and Species Richness for Each Static Monitoring Point (September 2017)

Static Monitoring Point	Total Bat Passes								Total Bat Passes	% of Total Bat Passes	Average Bat Passes / Per Night	Species Richness
	Common Pipistrelle	Soprano pipistrelle	Nathusius pipistrelle	*Pipistrellus* sp.	Noctule	Leisler s bat	*Myotis* sp.	Brown long eared				
Western Hedgerow - SMP1	162	2	3	0	1	3	10	63	244	59%	40.7	7+
Central Hedgerow - SMP2	114	7	11	2	0	2	15	22	174	41%	29	6+

Badger

3.35 No records of badger were identified within 2km as part of the biological records search.

Habitat Assessment

3.36 The habitats present within the Site, including hedgerows, scrub, woodland edges and grasslands were considered suitable for supporting badger foraging and creation of setts.

3.37 No signs of badger setts or foraging were identified during any of the Site visits, despite target survey, and therefore no disturbance to setts is predicted. Whilst the scheme may reduce the extent of suitable foraging habitat for badger in the wider area, the Site is considered unlikely to be important in sustaining local badger populations. As a result, no specific avoidance or mitigation measures are provided in respect of badger, but the general recommendations for ecological enhancement provided below would be expected to also provide some benefit for badger if present in the wider area.

Dormouse

3.38 No records of dormouse were identified within 2km as part of the biological records search.

Presence/absence Survey

3.39 No signs of dormouse were recorded during the nest tube surveys or nut searches. Furthermore, as described above, the Site was considered highly unlikely to support dormouse. Indeed, surveys were completed in line with a highly precautionary approach having been commissioned at an early stage in the scheme design when it was unclear whether the proposed scheme would result in the loss of hedgerows, tree lines and woodland.

3.40 As part of the iterative process of scheme design, the value of woodlands, hedgerows, tree lines, and individual trees was fully recognised and scheme design was modified to retain, protect and strengthen the majority of these features. As a result there is a high level of certainty that dormouse will not be affected by the proposals, and therefore dormouse is not considered further as part of this appraisal.

Great Crested Newt

3.41 Biological records identified records of great crested newt (GCN) c.1km to the south west of the Site. In addition, this species is known to occur in ponds within the Lingfield Nature Reserves, located c. 0.5km to the north west of the Site.

Habitat Assessment

3.42 A depression at the northwest edge of the Site is likely to have historically been a pond. However, detailed inspections during the Extended Phase 1 Habitat Surveys indicated that this feature is no longer a pond and is unlikely to hold water at any stage during the year to a degree where it would be suitable for supporting breeding GCN. Indeed, the depression was devoid of any aquatic macrophytes, being dominated by common nettle and the presence of scrub species such as elder.

3.43 The desk study identified a further waterbody within 500m of the Site[17]. This pond was recorded c. 10m west of the north west boundary of the Site. This pond was located in private gardens and was not accessible during the Extended Phase 1 Habitat Survey but images of the pond from May 2020 were freely available on Google Maps[18]. This allowed for a high level assessment of the ponds suitability for GCN to be undertaken. The pond appears to be ornamental in character and was considered unlikely to support to GCN due its limited size (<50m^2) and isolation from other suitable ponds.

3.44 The majority of the Site is of low suitability for supporting amphibians, and whilst it does not present a barrier to movement, the suitability of the habitats present is low on the basis of regularly mowing and lacking the structural diversity typically required to provide shelter.

3.45 As a result, of the above, GCN were considered highly unlikely to occur within the Site in their terrestrial phase, and therefore this species is not considered further in terms of avoidance or mitigation measures. Nevertheless, recommendations are provided in the following section of this report which outlines opportunities to restore the historic pond and provide future benefits for amphibians and other wildlife.

Reptiles

3.46 Biological records identified the presence of common lizard within 2km of the Site. The Lingfield Nature Reserves, located c. 0.5km to the northwest of the Site are known to support common lizard and grass snake.

Habitats Assessment

3.47 Habitats within the Site which were considered suitable for supporting reptiles included the edge of hedgerows and scrub, often where taller grassland and ruderal vegetation such as bracken had established. The majority of grassland

[17] This pond was not shown on OS or MAGIC maps and was therefore not identified during the 2017 or 2020 desk studies.

[18] Google Maps Images. Available at: https://goo.gl/maps/Yf255GVzfWi2Sfrr6

within the Site was considered of low suitability for supporting reptiles because it was structurally poor, being short in sward height and lacking a 'thatch' layer or varied topography. Indeed, a review of aerial photography indicates that the grassland has been historical been regularly mown. Patches of grassland were recorded in central field locations where the sward was developing a taller and more structurally diverse sward, and was subsequently approaching more suitable conditions for supporting reptiles. These areas were relatively isolated from more suitable habitat but were surveyed in line with a precautionary approach.

Reptile Survey

3.48 The surveys confirmed the presence of common lizard at the Site. In summary, the presence of common lizard within the Site was restricted to the edges of hedgerows. The majority of records were associated with the central hedgerow (Location G in **Figure F.1**), where a maximum daily count of 9 adult individuals was recorded. Low numbers of common lizard were also recorded along hedgerows in the east of the Site (Locations B and C in **Figure F.1**), whilst a single juvenile individual was recorded from the edge of the northernmost field (Location L). The surveys confirmed the presence of both male and female adult lizards and juveniles, confirming that the Site is likely to support a permanent breeding population of common lizard.

3.49 No common lizard or other reptile species were recorded in grassland habitats, and given the short sward and regularly mown condition of grassland habitat within the Site it is considered unsuitable for supporting reptiles at the present time.

3.50 Full results are located in **Table F.1**, **Appendix F** and a plan showing the location of the species found is located in **Figure F.2**, **Appendix F**.

Nesting Birds

Habitats Assessment

3.51 Habitats within the Site, including hedgerows, trees, woodlands, and scrub are likely to support a typical assemblage of nesting birds during the breeding season. This is likely to include bird species which although relatively common and widespread are listed as birds of conservation concern and species of principal importance due to nationwide population declines. These include song thrush T*urdus philomelos*, mistle thrush *Turdus viscivorus*, house sparrow *Passer domesticus*, bullfinch *Pyrrhula pyrrhula*, dunnock *Prunella modularis*, yellowhammer *Emberiza citrinella* and starling *Sturnus vulgaris*. Open areas of grassland also have the potential to support nesting skylark *Alauda arvensis* which is also a red listed species of conservation concern, albeit given the relatively small size of field enclosures and the proximity of edge features, the grassland habitats present within the Site are considered sub-optimal for this species.

3.52 Recommendations for avoidance and mitigation in relation to nesting birds are provided in the following section of this report. Recommendations also include opportunities to provide benefits for nesting birds as part of scheme design, with a particular focus on birds of conservation concern and species of principal importance known to live within or close to residential developments.

Other Species

Hedgehog

3.53 No records of hedgehog *Erinaceus europaeus* were identified within 2km as part of the biological records search.

Habitat Assessment

3.54 The habitats present within the Site, including hedgerows, scrub, woodland edges and grasslands provide suitable habitat for foraging, commuting, sheltering and hibernating hedgehog.

Stag Beetle

3.55 A review of biological records identified records of stag beetle *Lucanus cervus* within 1km of the Site.

Habitat Assessment

3.56 Dead wood habitat was scarce across the Site and therefore opportunities for stag beetle were considered

Chapter 4
Discussion

Designated Sites

4.1 The Site does not share functional ecological connectivity to statutory or non-statutory designated sites and therefore no impacts to designated sites are predicted.

Habitats

4.2 The majority of the Site comprised species-poor grasslands which have been agriculturally improved and are regularly mown. As a result they lack structural or species diversity and were considered of low ecological value. Habitats of increased ecological value within the Site included hedgerows, woodland in the northwest of the Site and individual mature trees, including those with bat roost potential.

4.3 As part of the iterative design process, ecological constraints and opportunities were identified at an early stage and used to inform scheme design. As a result, the final scheme design has achieved the retention and protection of key habitat features including mature trees and woodlands and the majority of hedgerow.

4.4 It is understood that habitat loss will focus primarily on areas of species-poor grassland and internal hedgerows in the southeast of the Site which are more intensively managed and lack the structural diversity of hedgerows occurring elsewhere within the Site. Nevertheless, the hedgerows provide nesting habitat for birds, shelter for common lizard and are of ecological value in their own right, contributing to ecological connectivity at the Site level. As a result, mitigation and enhancement measures are recommended below to ensure that these functions are maintained as part of the final scheme design.

4.5 Despite the relatively low value of the grassland habitat within the Site, the proposed scheme will result in extensive loss and therefore mitigation and enhancement measures are recommended below which seek to ensure that the overall ecological value of the Site is not reduced by its loss. A housing scheme at the Site would change its ecological character and the habitats and species it is capable of supporting, and therefore mitigation and enhancement has

been directed towards measures which can typically be incorporated as part of housing development.

4.6 Enhancement measures have also been guided by the Sites location within and adjacent to the R02 Eden (& tributaries) Biodiversity Opportunity Area (BOA). Policy TLP35: Biodiversity, Ecology and Habitats within the emerging Local Plan (2033) includes the following:

The Council will conserve and enhance biodiversity and seek opportunities for Priority habitat creation and restoration particularly within and adjacent to Biodiversity Opportunity Areas (BOAs). Biodiversity Opportunity Areas are identified on the accompanying Policies Map. Proposals for development must demonstrate how they will deliver appropriate net gains in biodiversity. Where proposals fall within or adjacent to a BOA, biodiversity measures should support that BOA's objectives as set out in the BOA-specific Policy Statements prepared by the Surrey Nature Partnership and the policies of the development Plan.

Avoidance and Mitigation

4.7 As specified above, the scheme has been informed by emerging ecological findings and adapted to avoid and minimise potential ecological impacts in the first instance, or example through retention of woodlands, the historic pond, the central, western and peripheral hedgerows, and retention and protection of mature trees. Where ecological impacts could not completely avoided, for example the loss of sections of hedgerow in the southeast to facilitate site access and the loss of the majority of species-poor grassland to facilitate the change in land use at the Site, mitigation is recommended to ensure that the ecological value of habitats within the Site are not reduced. The following mitigation measures are recommended.

- **Hedgerow in-fill planting** – Retained hedgerows along the Site boundary support numerous gaps and sections which are poor in terms of their structural and species diversity. It is therefore recommended that additional planting is provided to fill gaps and strengthen and enhance retained sections of hedgerow. Planting should include a range of native species which reflect the Site character and existing conditions, for example including hazel, hawthorn, blackthorn, oak, dog rose *Rosa canina*, yew, holly *Ilex aquifolium*, field maple *Acer campestre*, cherry *Prunus avium*, and honeysuckle. Retained hedgerows could also be planted with additional native species as listed above, to increase their ecological value from a species-poor to a species-rich.
- **Planting of native trees and shrubs** – Planting of native trees and shrubs as part of the scheme landscape design, for example street tree planting, or provision of tree clusters would help to maintain the availability of nectar sources for invertebrates, bird nesting and foraging habitat and commuting and foraging routes for bats, whilst maintaining general ecological connectivity across the Site. Native species including those species listed above or other species of known ecological benefit would be of most benefit.
- **Provision of wildlife friendly grasslands** – The provision of an area of rough grassland within the Site, created and managed in perpetuity to support a species-rich and structurally diverse sward would help to mitigate for the loss of a more extensive area of species-poor grasslands. Such grassland could be sown with wildflowers to maximise the number of plant and invertebrate species present, and would also form a receptor site for accommodating displaced common lizards as part of mitigation requirements for reptiles (see below), whilst also providing wider ecological benefits (e.g. for invertebrates and birds). In addition, such an area could provide an aesthetically pleasing resource for local residents by incorporating mown access paths and educational signage. This grassland would require application of ongoing suitable management to maintain and maximise its ecological benefit whilst also delivering its mitigatory role in supporting common lizards in the long term (see reptile section below for more detail). Creation of such grassland would also support the objectives of the BOA, which includes restoration and creation of meadows as one of its key objectives.
- **Best practice construction measures** should be implemented during the construction phase to avoid and minimise risks to habitats, including:
  - Fencing off habitats of ecological value to prevent encroachment of the development activities.
  - Secure storage and safe disposal of any materials and substances to prevent accidental contamination of habitats.
  - Prevention or reduction of dust spread through timing of works or damping down.
  - Control of surface water runoff, including from damping down, preventing contamination of waterbodies.
  - Protection of trees and vegetation protected in accordance with good practice methods and

guidance as outlined by the British Standards institute[19].

Enhancement

4.8 The proposed development presents an opportunity to increase the ecological value of the Site for wildlife and to achieve biodiversity net gain in accordance with the NPPF. LUC are in the process of providing advice on how to achieve Biodiversity Net Gain (BNG). Opportunities for enhancements include:

- **Woodland Management** - Localised coppicing of suitable trees and shrubs within the northwest area of woodland in the vicinity of the historic pond would improve the ecological value of woodland habitats by increasing the structural diversity, improving light levels, maximising the availability of fruits and seeds, and encouraging the creation of 'edge' habitat niches favoured by woodland wildlife. This would work well in parallel with the below recommendation to restore the historic pond, which would directly benefit from increasing light levels.
- **Hedgerow creation** – Planting a network of species-rich hedgerows within the development would create habitat for a range of species including birds, hedgehog and invertebrates. Planting should include a range of native species which reflect the Site character and existing conditions, as listed above in paragraph 4.7.
- **Wetland Restoration** - Restoration of the historic pond in the northwest of the Site would provide a notable ecological enhancement by reinstating opportunities for amphibians, birds, reptiles, mammals and invertebrates. Restoration would likely require the removal of excess silt and deepening of the existing pond base in parallel with selective clearance of vegetation along the southern edge to maximise light levels reaching the pond and encourage the establishment of aquatic plants. Detailed design of pond restoration would likely require further advice from specialist contractors. Restoration of this pond would also provide habitats for key species targeted in the BOA, including common toad, great crested newt and white-legged damselfly.
- **Wetland Creation** - There may also be an opportunity to create new ponds, wetland features or wet ditches as part of scheme design and this could be incorporated into the provision of drainage systems such as SuDS. Provision of wetland habitat in the vicinity of species-rich grasslands would be particularly beneficial. This would also create habitat for a range of notable plant species present within the BOA, including true fox sedge *Carex vulpina*, marsh speedwell *Veronica scutellata* and narrow leaved water-plantain *Alisma lanceolatum*.
- **Deadwood Features -** Creation of deadwood features, such as log and brash piles would enhance woodlands and scrub habitats by potentially providing valuable habitat for reptiles, amphibians, small mammals and invertebrates. Provision of deadwood would be particularly beneficial in parallel with woodland management and pond restoration in the northwest of the Site and areas of species-rich grassland where they would provide opportunities for common lizard to bask and shelter.
- **Wildlife Friendly Planting** - Where areas of communal landscape planting are proposed, planting should seek to incorporate species with a known benefit to wildlife. Any landscaping should use native or non-native species of known value to wildlife. Species which benefit pollinators are recommended, details of which can be found on the Royal Horticultural Society (RHS) Plants for Pollinators database[20].
- **Ditch Enhancement** - The existing ditch along the northern edge of the central hedgerow is dry and overgrown with tall ruderal vegetation. Clearing, deepening and managing this ditch would increase its ecological value by providing a more diverse range of habitat niches, such as standing water and aquatic vegetation.

Protected Species

Bats

4.9 Legal protection afforded to bats and their roosts is summarised in **Appendix C**. In summary all bats and their roosts are subject to the highest level of protection afforded to species in the UK as European Protected Species (EPS).

4.10 The proposed scheme has been sensitively designed to minimise potential impacts to bats, for example through the avoidance and protection of trees with high potential to support roosts, and retention of linear habitat features such as hedgerows and tree lines as far as possible. The loss of grassland is considered unlikely to notably reduce the quality of the Site for bat species because it is relatively species-poor and lacks structural diversity. As a result, it is unlikely to represent habitat of high quality for foraging. Nevertheless, the

[19] BSI (2012). BS 5837:2012: *Trees in relation to design, demolition and construction – Recommendations*. British Standards Institution, Bristol.

[20] https://www.rhs.org.uk/science/conservation-biodiversity/wildlife/plants-for-pollinators

proposed scheme is likely to benefit generalist species such as pipistrelles and those which favour structurally complex environments such as brown long-eared bats, at the expense of those which forage over open grassland such as noctule.

4.11 Scheme design will comprise extensive private residential gardens, areas of communal green space and planting of native species which would be expected to provide opportunities for foraging and commuting by bats. Indeed, the additional structural complexity provided at the Site as a result of the proposed scheme would be expected to increase the range of foraging conditions for several bat species by increasing shelter and habitat micro niches. Furthermore, the construction of buildings would be expected to provide additional opportunities for bat roosting at the Site, and this could be targeted to provide certain ecological enhancement as specified below.

4.12 In order to maximise the suitability of the Site for bats and reduce any potential fragmentation effects across the Site and wider landscape, a sensitive lighting scheme is recommended, and this is described in more detail below.

Bat Roosts

4.13 The ground level bat roost assessment identified six trees which had BRS as presented **Figure D.1**, **Appendix D**. Current development proposals show that these trees will be retained, if this changes trees with BRS which require removal further surveys will be required as detailed below.

Further Survey Requirements

Emergence/Return Surveys

4.14 If proposals result in the loss of trees with BRS, the following surveys would be required:

- **High BRS** - This would comprise three emergence/re-entry surveys to be undertaken between May and August, in line with best practice guidance.
- **Moderate BRS** - This would comprise two emergence/re-entry surveys to be undertaken between May and August, in line with best practice guidance.
- **Low BRS** – No further surveys are required. However, in line with best practice, soft felling measures, under the supervision of a licensed bat ecologist would be required if scheduled for removal. This would comprise the cutting tree limbs above and below any features with bat roost potential. The limbs should be placed upright on the ground adjacent to the tree and left for three nights to enable bats, if present to relocate.

Update Nocturnal Activity Surveys

4.15 Given the elapsed time since the previous surveys and in accordance with best practice guidelines[13], it is recommend that nocturnal activity surveys are updated following the methodology described in **Section 2: Methodology**.

4.16 LUC have been commissioned to undertake these update surveys which will be completed by Autumn 2022. The findings of these further surveys will be incorporated into an updated report on completion.

Licensing

4.17 The findings of these surveys will determine the need for mitigation or protected species licensing. Should bat roosts be identified, it is likely that standard mitigation measures, including sensitive timing and the provision of alternative roosting facilities, would be required.

4.18 If proposals result in the loss, damage or destruction of a roost, a Natural England (NE) licence would be required. More information on NE Bat Licensing is provided in **Appendix C.**

4.19 If roosts were identified, the requirement for and design of bat mitigation measures would need to be informed by survey findings. These measures would be detailed in any bat licence (as above), and may include:

- Provision of alternative bat roosts on a like-for-like basis prior to works.
- Soft felling of trees with confirmed bat roosts as outlined above.
- Sensitive timing of works to avoid breeding and hibernation (generally autumn or spring).

Avoidance and Mitigation

Lighting

4.20 The proposals have the potential to result in increased lighting of semi-natural habitats such as hedgerow, scrub and woodland within the Site. A sensitive light scheme should therefore be implemented to minimise light spill on these habitats. In line with best practice guidance[21], the following lighting measures should be adopted:

[21] Bat Conservation Trust and Institute of Lighting Professionals (2018) *Guidance Note 08/18: Bats and artificial lighting in the UK*. ILP, Rugby.

- Use LED lighting, which does not emit UV and which has a warm white light spectrum (preferably <2700Kelvin) and uses wavelengths higher than 550nm.
- Internal lighting adjacent to windows and openings should be recessed to reduce glare and light spill.
- Directional lighting, such as specialist bollards, low-level downward direction lighting or column lighting to minimise light spill.
- Use of motion sensor lighting or timers, where appropriate, to restrict lighting to required periods.
- Dimming or part-night lighting to reduce light levels when bats are most active.
- Use of the lowest lux possible.
- Sensitive scheme design to minimise light spill on key habitats and features i.e. location, orientations and height of new structures or placement of open spaces and footpaths.
- Screening through soft landscaping and installation of walls and fences as a last resort.

Enhancement

4.21 The habitat mitigation and enhancement measures described above would be expected to provide benefits for bats also, with the strengthening of hedgerows, planting of native trees and shrubs, and restoration of the historic pond likely to be particularly beneficial by providing optimal habitat conditions for bat foraging.

4.22 To ensure that the development is in accordance with the NPPF and to achieve an overall increase in ecological value the following options are recommended:

- The incorporation of bat boxes onto the external façade of any proposed building (Schwegler 2FE Wall-Mounted Bat Shelter or similar);
- The consideration of integrating bat bricks within the external façade of any proposed building (Ibstock Enclosed Bat Box or similar); and
- The provision of bat boxes onto retained mature trees within the woodland (Schwegler 2F or similar).

Badger

4.23 Legislation afforded to badger is detailed in **Appendix C.**

4.24 Badgers and their setts/resting places are offered protection in England by the Protection of Badgers Act (1992). The Act exists to protect the species from persecution; it is not a reflection of the conservation status of the species.

4.25 The survey found no evidence of active badger activity or setts.

Further Survey Requirements

4.26 Badgers are a highly mobile species and can establish setts rapidly. Given the suitability of the habitats on site for badger there is therefore the potential for badger to establish new setts within the Site prior to works. It is recommended that the Site and a 50m buffer is subject to an update badger survey by a suitably qualified ecologist, no further than 6 weeks in advance of commencement of works. This would aim to identify any newly established setts and identify appropriate mitigation.

Licencing

4.27 If badger setts are recorded, a mitigation licence from Natural England may be required if impacts to badger cannot be avoided through scheme design or sensitive working methods.

Avoidance and Mitigation

4.28 Given no badger or evidence was identified on site, no mitigation is required in relation to badger.

Enhancements

4.29 Recommended habitats enhancements including planting of new native scrub and tree species in areas which increase connectivity will also benefit badger. This will provide increase habitat connectivity and provide new sett building opportunities for badger.

Dormouse

4.30 Legal protection afforded to dormouse is provided in **Appendix C.** In summary dormouse are subject to the highest level of protection afforded to species in the UK as European Protected Species (EPS). A Natural England EPS licence is required for development works and/or habitat clearance to proceed which would affect dormouse and their habitat.

4.31 The Site was considered highly unlikely to be capable of supporting dormouse. Nevertheless, in accordance with a highly precautionary approach nest tubes surveys and nut searches of fruiting hazel were completed.

4.32 The survey found no evidence of dormouse.

Further Survey Requirements

Update Presence/Absence Surveys

4.33 Given the elapsed time since the previous surveys and in accordance with best practice guidelines[13], it is recommend

that the presence/absence surveys are updated following the methodology described in **Section 2: Methodology**.

4.34 LUC have been commissioned to undertake these update surveys which will be completed by Autumn 2022. The findings of these further surveys will be incorporated into an updated report on completion.

Mitigation

4.35 Given no dormice or evidence was identified on site, no mitigation is required in relation to dormice.

Enhancements

4.36 The habitat mitigation and enhancement measures described above would be expected to provide benefits for dormice also, with the strengthening of hedgerows likely to be particularly beneficial by providing improved connectivity for dormice.

4.37 Additional enhancements include enhancing retained woodland and scrub dormouse. Enhancements should include:

- Chery laurel control which would encourage the growth of native scrub species.
- Thinning to prevent continuous dense shade and promote a diverse understorey;
- Coppicing management practices to improve habitat variety.

Great Crested Newt

4.38 Legislation afforded to GCN is detailed in **Appendix C**. In summary GCN and their places of rest are subject to the highest level of protection afforded to species in the UK as an EPS.

4.39 A single suitable waterbody was recorded within 500m of the Site. The pond, located c. 10m west of the Site was considered highly unlikely to support to GCN due its limited size (<50m2) and isolation from other suitable ponds. GCN were also considered highly unlikely to occur within the Site in their terrestrial phase.

Nevertheless, in accordance with a precautionary approach it is recommended that the pond c. 10m north-west of the Site is subject to further eDNA survey for GCN if possible.

Recommended Further Survey Requirements

4.40 Further surveys are required to determine the presence or likely absence of GCN on site. This includes:

- **eDNA Survey** - DNA samples can currently be obtained between the core period of 15 April and 30 June. Although samples taken outside this period can show presence, such samples cannot be used to determine absence. Variations in weather patterns (for example unseasonably cold weather) can affect animal movements and it is possible that samples taken very early in the season may be inconclusive.
- In certain situations, eDNA survey results may not be conclusive. The presence of eDNA can be patchy and largely depends on location of animals within a pond. Sampling multiple parts of a pond increases the chance of successfully collecting eDNA. There is therefore a risk that poorly accessible ponds, with few available sampling points, will not allow sufficient samples to be taken to confidently conclude that GCN are not present.

Potential Further Survey Requirements

- **Full GCN Survey** - A full GCN survey is only required if GCN are identified as present. A waterbody survey can be conducted to provide an estimate of the population size class. Six survey visits are to be conducted in accordance with good practice guidelines , comprising bottle trapping, torching and an egg search. All survey visits must be undertaken in suitable weather conditions. The survey window for GCN is March – June (inclusive).
- GCN population size class can then be categorised using the highest count of GCN obtained using data obtained from any one survey method on any single survey visit ('maximum count'). Categories are as follows:
  - Small population = maximum count of up to 10;
  - Medium population = maximum counts of between 11 and 100; and
  - Large population = maximum counts of over 100

4.41 The off-site pond was not shown on OS or MAGIC maps and was therefore not identified during the 2017 or 2020 desk studies. LUC have been commissioned to undertake the eDNA surveys which will be completed by June 2022. The findings of these further surveys will be incorporated into an updated report on completion.

Avoidance and Mitigation

4.42 Unless the eDNA surveys determine GCN to be present in the off-site pond, no mitigation is required in relation to GCN.

Enhancements

4.43 The habitat mitigation and enhancement measures described above would be expected to provide benefits for GCN also, with the wetland restoration, wetland creation, deadwood habitat and ditch enhancement likely to be particularly beneficial to GCN.

Reptiles

4.44 Legislation afforded to reptiles is summarised in **Appendix C.**

4.45 The Site supports a population of common lizard. Survey results indicated that this species primarily occurs along the central hedgerow with low numbers also recorded in the southeast and northern edges of the Site. Grassland habitats were not considered suitable for supporting reptiles due to regular management through mowing and a subsequent lack of sward height and structural diversity.

4.46 The scheme design will result in the localised loss of habitat occupied by common lizard, and some areas of suitable reptile habitat which are to be retained are likely to become increasingly isolated from other areas of suitable habitat in the wider landscape. It is estimated that c.0.3ha of suitable habitat for common lizard will be lost or affected as a result of the proposed scheme. As a result, mitigation will be required to protect and conserve common lizard in the long term. The recommended outline mitigation requirements for common lizard are provided below and it is likely that a detailed mitigation strategy could be provided as a planning condition.

Further Survey Requirements

Update Reptile Surveys

4.47 Given the elapsed time since the previous surveys and in accordance with best practice guidelines[13], it is recommend that the reptile surveys are updated following the methodology described in **Section 2: Methodology**.

4.48 LUC have been commissioned to undertake these update surveys which will be completed by Autumn 2022. The findings of these further surveys will be incorporated into an updated report on completion.

Population Assessment

4.49 A total of nine reptile survey visits have been completed at the Site to date. Best practice guidance recommends a minimum of 7 visits to establish presence or probable absence of reptile species at a site.

4.50 A total of 20 survey visits is required to accurately estimate population size and inform detailed mitigation requirements, such as the minimum number of trapping days required to capture and translocate a population. As a result, a further 11 survey visits will be required during suitable weather conditions between April-October inclusive to inform preparation of a detailed mitigation strategy. Nevertheless, the survey data gathered to date, together with professional judgement and interpretation of the Site conditions, is considered sufficient to identify the outline approach likely to be required to inform the planning application and to ensure that avoidance and mitigation of impacts for common lizard at the Site can be provided, as described below.

Avoidance and Mitigation

Broad principles

4.51 Following completion of the reptile surveys, the scheme design was updated to retain the central hedgerow, thereby considerably reducing the likelihood of development works resulting in the killing and injury of common lizards. Nevertheless, hedgerows in the southeast of the Site, where low numbers of common lizard were recorded, are scheduled for removal, and the ecological connectivity of the central hedgerow described above is likely to be reduced.

4.52 A suitable mitigation strategy is required to ensure that reptiles are not killed or injured, and that the common lizard population is protected and maintained in perpetuity. The two broad options for mitigation are:

1. To capture, exclude and translocate lizards to a suitable receptor site located within the Site,
2. To capture, exclude and translocate lizards to a suitable receptor site located offsite.

4.53 Option 1 is likely to represent the preferred approach because it avoids the requirement to identify, acquire, and prepare a suitable offsite receptor, and also avoids the need for additional reptile surveys to establish the feasibility of using such a site. As a result, the approach outlined below relates to Option 1 only. However, Option 2 would be considered a viable option if the Council were aware of a preferred suitable receptor site locally.

4.54 The provision of an onsite receptor site for common lizard will need to meet the following key criteria:

- **Size** - The Site supports approximately 0.3ha of habitat suitable for supporting common lizard. Therefore, a receptor site should comprise a similar or greater area to ensure that it is large enough to maintain an equal or great lizard population.
- **Connectivity** - Any receptor site should ideally be connected to other areas of semi-natural habitat in the wider area via suitable movement corridors such as hedgerows and rough grassland, to avoid isolation and fragmentation of populations. Provided habitat

connectivity with areas of semi-natural habitat to the northwest of the Site is likely to be particularly favourable.

- **Shape and composition** – Ideally, a receptor area would comprise a single area of continuous and connected habitat, rather than several areas of smaller because populations in larger blocks are typically more resilient to edge effects associated with human disturbance and pet predation.
- **Habitat suitability** – A receptor site will need to support habitat of optimal suitability for common lizard. This typically includes the presence of rough grasslands with a varied structural diversity to provide opportunities for feeding, basking and sheltering. The presence of shelter features including log piles and patches or edges of scrub vegetation are also important for providing opportunities for shelter and basking. One or more bespoke hibernacula, where common lizard can successfully overwinter would also be required. The establishment of suitable habitat is a key requirement of a receptor area prior to the introduction of lizards.
- **Favourable Management** – A receptor site will need to be managed for the benefit of common lizard in perpetuity. Detailed management prescriptions would expect to be submitted as part of a detailed mitigation strategy but in summary would be expected to provide details of grassland cutting regimes, selective clearance and control of scrub and trees, and maintenance of key habitat features such as log piles and hiberncula.

Outline Approach to Capture, Exclusion and Translocation

4.55 A programme of capture, exclusion and translocation will be required to mitigate for potential impacts to common lizard. The preferred approach is outlined below in chronological order.

1. **Preparation of a Receptor Area** – A suitable receptor which complies with the above requirements would be provided. This would likely require habitat creation works including grassland seeding and provision of features such as log piles and hiberncula. Design of the receptor site would need to be appropriately informed by a suitably qualified ecologist experienced in reptile mitigation design. The receptor area would be temporarily enclosed by reptile exclusion fencing during the development phase to prevent common lizards returning to construction areas.
2. **Initial Habitat Manipulation** – Areas of low suitability for supporting common lizard, but where their absence cannot be guaranteed, for example dense areas of tall ruderal vegetation in shaded locations, or peripheral patches of grassland developing a longer sward, would be gradually strimmed or mown in a directional manner over a period of days during suitably warm weather conditions when reptiles are active. This would ensure that common lizards are restricted to optimal habitats (e.g. along hedgerows) prior to the next stage commencing.
3. **Erection of Reptile Exclusion Fencing** – Suitable temporary reptile fencing would be erected around areas containing lizards. The fencing would be made of non-climbable material (e.g. polythene) and erected in accordance with current best practice guidelines. The exclusion fencing will be erected to provide several separate compartments.
4. **Provision of Refugia** - A high density of refugia will be provided within each compartment to aid reptile capture. Refugia should ideally comprise a range of materials including corrugated onduline, carpet tiles, and bitumen roofing felt.
5. **Reptile Capture and Removal** – reptiles would be captured by hand and safely and immediately removed to the receptor area. Capture would be undertaken during suitably warm weather conditions between April-October inclusive and would be completed by ecologists experienced in reptile capture and handling.
6. **Habitat Manipulation** – following an initial period of capture, habitat manipulation would be utilised to gradually reduce the extent of suitable habitat within each compartment and thereby increase the rate at which reptiles are located under refugia.
7. **Habitat Destruction** – After a suitable period of no capture within a given compartment, habitat destruction would be completed in line with a precaution working method and under the supervision of an ecologist to ensure any remaining common lizard are captured and safely relocated.
8. **Removal of Fencing** – With the exception of the boundaries of the receptor area, areas of retained habitat, and the wider construction area, fencing of internal compartments would be removed enabling construction works to commence.

Nesting Birds

4.56 Birds and their nests are protected by the Wildlife and Countryside Act, 1981 (as amended) detailed in **Appendix C.**

4.57 Scrub, hedgerows, woodland and individual trees are likely to provide suitable habitat for a range of common and widespread nesting birds.

4.58 Loss of hedgerows and scrub habitats has the potential to destroy bird nests and to reduce the availability of suitable nesting habitat within the Site. Development of a housing scheme at the Site is likely to reduce or eliminate its suitability for species which favour open aspects such as skylark and yellowhammer, and therefore the avoidance, mitigation and enhancement recommendations provided below have been developed with a particular focus on birds of conservation concern and species of principal importance which would be capable of occupying a residential environment.

Avoidance and Mitigation

4.59 Where the proposals will result in the loss of habitat suitable to support nesting birds, the following mitigation measures would be required:

- Clearance of suitable nesting habitat between September-February (inclusive) to avoid the nesting season.
- If vegetation clearance cannot be undertaken outside the nesting bird season, an inspection of vegetation for the presence of birds' nests would be undertaken by a suitably qualified ecologist no more than 24 hours prior to felling.
- If birds' nests are found to be present, works must cease within a suitable buffer zone until the young have fully fledged, and the nest is no longer active (to be confirmed by an ecologist). This would likely result in delays to the programme.

4.60 The proposed scheme will result in the loss of two internal hedgerows in the south east of the Site, creation of gaps in existing hedgerows to facilitate site access and internal access roads, and loss of dense scrub habitat in the northeast corner of the Site. In order to mitigate for the loss of these habitats, and to ensure that the Site maintains the extent of nesting habitat for birds , it is recommended that the scheme incorporates the following:

- **Hedgerow in-fill Planting** – retained hedgerows along the Site boundary support numerous gaps and sections which are poor in terms of their structural and species diversity. It is therefore recommended that additional planting is provided to fill gaps and strengthen and enhance retained sections of hedgerow. This is discussed in more detail as part of the recommendations for mitigation of habitats described above.
- **Planting of Native Trees and Shrubs** – Planting of native trees and shrubs as part of the scheme landscape design would ensure that the extent of bird nesting habitat within the Site is maintained.

4.61 The grassland habitats within the Site are considered to be of low suitability for ground nesting species such as skylark. Nevertheless, the loss of this habitat in relation to birds cannot be mitigated as part of the proposed scheme, and therefore the mitigation measures specified above have been targeted towards maintaining nesting opportunities for species of principal importance capable of nesting within residential environments such as thrushes, house sparrow, bullfinch and dunnock.

Enhancements

4.62 The habitat mitigation and enhancement measures described above could help to maintain and enhance the value of the Site for birds by maintaining and increasing the quality of habitat types both for nesting and as a foraging resource.

4.63 Scheme design has the potential to go above what is required for mitigation, and to provide additional enhancements for birds by incorporating the following features:

- **Species specific nesting boxes** – The provision of nesting boxes could be targeted towards supporting the following amber and red listed birds of conservation concern, and species of principal importance:
  - House sparrow – provision of specific colonial nesting terraces and groups of boxes on houses, trees and in proximity to dense scrub and retained hedgerows.
  - Dunnock – provision of open-sided nesting boxes in dense scrub and hedgerows.
  - Spotted flycatcher – provision of open-sided nesting boxes attached to large oak trees in the northwest of the Site.
  - Starling – provision of specific starling boxes on retained trees and/or houses.
  - Swift and house martin – provision of specific nesting boxes built into/onto the eaves of building.

Appendix A
Proposed Scheme


N
Omega Architects
WOOLBRO MORRIS
LAND AT THE OLD COTTAGE, STATION ROAD, LINGFIELD
SKETCH SCHEME 5
1:500 @ A0
5 RN TJ 04.02.22
5B JL TJ 09.02.22
5C/D JL TJ 11.02.22
2661 C 1005 SK 5D

Appendix B

Phase 1 Habitat Survey and Target Notes

Land West of Station Road, Lingfield
Woolbro Group and Morris Investment

LUC

Figure B.1: Phase 1 Habitat Survey

Site boundary
Target note

Phase 1 linear feature
J2.6 Dry ditch
J2.2.2 Species-poor defunct hedgerow
J2.1.2 Species-poor intact hedgerow

Phase 1 habitat
Scattered trees
A1.1 Semi-natural broadleaved woodland
A2.1 Dense scrub
B6 Poor semi-improved neutral grassland
C1.1 Dense bracken
C3.1 Tall ruderal
C3.1 Tall ruderal/A2.2 scattered scrub
J4 Bare ground
Hard standing

WOOLBRO MORRIS

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

CB:VG EB:llott_J LUC FIGA1_11169_r0_Phase1_20220126 03/03/2022
Source: LUC

Table B.1: Extended Phase 1 Habitat Survey - Target Notes

Target Note	Description	Photograph (January 2022)
1	Dense scrub (A2.1) along northwest edge of northernmost field dominated by blackthorn *Prunus spinosa* reaching c.4m in height. Hawthorn *Crataegus monogyna* also present frequently.	
2	Poor semi-improved neutral grassland (B6) Dominant species include Yorkshire fog *Holcus lanatus*, cock's-foot *Dactylis glomerata*, perennial rye-grass *Lolium perenne*, meadow foxtail *Alopecurus pratensis* and rough meadow-grass *Poa trivialis*. False-oat grass *Arrenhatherum elatius* was recorded as being locally frequent. In general the grassland was structurally poor, lacking any diversity in the sward height, and it is likely that historically it has been regularly managed through mowing and grazing. The sward was also noticeably poor in terms of herb diversity with species being restricted to those associated with improved grasslands, including frequent creeping buttercup, *Ranunculus repens*, common sorrel *Rumex acetosa* and dandelion *Taraxacum* sp., and occasional broad-leaved *dock Rumex obtusifolius* and creeping thistle *Cirsium arvense*.	
3	A small area of semi-natural broadleaved woodland (A1.1) which supports an historic pond and two large mature oak *Quercus robur* trees which supported numerous features suitable for supporting roosting bats. The historic pond was dry at the time of survey despite recent heavy rain, and was devoid of aquatic macrophytes or species indicative of seasonal wetland conditions. The ground flora in the depression of the former pond was comprised of a bed of common nettle *Urtica dioica*).	
4	An area of short grazed poor semi-improved neutral grassland (B6) bordered by a fringe of tall ruderal vegetation (C3.1) and scattered bramble *Rubus fruticosus* agg. scrub (A2.2) This area was grazed by horses at the time of survey and was therefore surveyed from adjacent land only. An intact species-poor hedgerow separated this field from the central field (see target note 6). The hedgerow comprised abundant hawthorn, blackthorn, hazel, and ash, with frequent to occasional oak, field maple *Acer campestre* and dog rose *Rosa canina*. A narrow fringe of tall ruderal vegetation dominated by hogweed and common nettle occurred along the base of the hedgerow.	

Target Note	Description	Photograph (January 2022)
5	A very large oak tree. Classified as having moderate potential to support roosting bats on account of its size and structure, despite no features being observed. The tree could not be inspected fully due to restricted access and extensive nettle and bramble growth beneath its canopy.	
6	Species-poor semi-improved neutral grassland (B6) as per target note 2.	
7	Dense scrub (A2.1) dominated by blackthorn and hawthorn, with a fringing interface between the taller scrub and grassland dominated by bramble with abundant common nettle.	
8	Species-poor intact hedgerow (J2.1.2) dominated by hazel with abundant bramble, hawthorn, and blackthorn. Occasional to frequently occurring species included sycamore *Acer pseudoplatanus*, honeysuckle *Lonicera periclymenum*, yew *Taxus baccata*, privet *Ligustrum ovalifolium* and oak *Quercus robur*. Species abundance over a given length was below that required to be classified as species-rich but overall supported several woody species and are likely to be long established features. Included a dry ditch (J2.6) and was bordered by a fringe of tall ruderal habitat (C3.1) and localised areas of rank grassland. This hedgerow was approximately 2.5m in height and 2m in width. It appeared to be regularly managed. Tall ruderal vegetation occurred at the edges of the central hedgerows and field corners where it typically comprised beds dominated by common nettle with locally abundant creeping thistle, hogweed *Heracleum sphondylium* and rosebay willowherb *Chamerion angustifolium*. A fringe of bracken *Pteridium aguilinum* (C1.1) also occurred along the northern edge of the central hedgerow.	

Target Note	Description	Photograph (January 2022)
9	Species-poor semi-improved neutral grassland (B6) as per target note 2 but with addition of localised patches dominated by false-oat grass beginning to succeed towards a more rank and structurally diverse sward in the centre of the Site.	No photograph.
10	Two ivy-covered mature oak trees along the southeastern site boundary. Both trees were considered to provide moderate potential for supporting bat roosts, largely on account of the density of ivy growth observed. The hedgerow in this region, and general along the southern edge of the Site was defunct, being relative gappy and sparely vegetated in sections.	
11	Intact species-poor hedgerow (J2.1.2) separating two field compartments. The hedgerow appeared to be regularly managed and was approximately 1.5m tall and 1.5m wide. Dominant species included hawthorn, blackthorn and bramble with frequent hazel and ash.	No photograph.
12	**January 2022** Field corner notably wet and supporting rushes *Juncus* sp. Good opportuntiy for wetland creation.	No photograph.
2020 Findings		
The above target notes remain consistent and robust. It was noted during the survey that, in line with previous recommendations, the grassland had been regularly maintained as a short sward through mowing and was of low ecological value.		
2022 Findings		
There was some minor changes in habitat extent, including the expansion of small areas scrub into previous areas of tall ruderal. However, the above target notes remain consistent and robust. As above, the grassland had been regularly maintained as a short sward and was of low ecological value.		

Appendix C

Policy and Legal Considerations

The Conservation of Habitats and Species Regulations 2017 transpose the requirements of the European Habitats Directive (Council Directive 92/43/EEC) and Birds Directive (Council Directive 2009/147/EC on the conservation of wild birds, replacing Directive 79/409/EEC) into UK law, enabling the designation of protected sites and species at a European level.

The Wildlife and Countryside Act 1981 (as amended) forms the key piece of UK legislation relating to the protection of habitats and species.

The Countryside Rights of Way Act 2000 provides additional support to the Wildlife and Countryside Act 1981; for example, increasing the level of protection for certain species of reptiles.

The Wild Mammals (Protection) Act 1996 sets out the welfare framework in respect to wild mammals, prohibiting a range of activities that may cause unnecessary suffering.

Hedgerows Regulations 1997 (1997/1160) protect certain hedgerows from removal or destruction without permission from the Local Planning Authority.

Species and Habitats of Principal Importance for Conservation in England and Wales are species which are targeted for conservation. The government has a duty to ensure that involved parties take reasonable practice steps to further the conservation of such species under Section 41 of the Natural Environment and Rural Communities Act 2006. In addition, the Act places a biodiversity duty on public authorities who 'must, in exercising their functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity' (Section 40 [1]). Criteria for selection of national priority habitats and species in the UK include international threat and marked national decline.

The National Planning Policy Framework (MHCLG June 2019) states (Section 15) that the planning system should identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks; promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of UK Priority Species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

It also states that local planning authorities should refuse planning on the following principles:

If significant harm to biodiversity resulting from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for;

If development is on land within or outside a Site of Special Scientific Interest (SSSI), and is likely to have an adverse effect on it (the exception being where the benefits of the development in the location proposed clearly outweigh its likely impact);

If development results in the loss or deterioration of irreplaceable habitats, such as ancient woodland and ancient or veteran trees (unless there are wholly exceptional reasons and a suitable compensation strategy exists).

Additionally, the NPPF states that development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

Tandridge District Core Strategy (adopted October 2008)

Policy CSP 17: Biodiversity

Development proposals should protect biodiversity and provide for the maintenance, enhancement, restoration and, if possible, expansion of biodiversity, by aiming to restore or create suitable semi-natural habitats and ecological networks to sustain wildlife in accordance with the aims of the Surrey Biodiversity Action Plan.

The Council will seek to enhance biodiversity by supporting the work of the Downlands Countryside Management Project and by supporting Local Nature Reserves and Community Wildlife Areas.

Tandridge District Council. Tandridge Local Plan, Part 2: Detailed Policies 2014-2019 (adopted July 2014)

DP19: Biodiversity, Geological Conservation & Green Infrastructure

There will be a presumption in favour of development proposals which seek to:

- Protect, enhance or increase the provision of, and access to the network of multi-functional Green Infrastructure (GI);
- Promote nature conservation and management;
- Restore or create Priority Habitats; or
- Maximise opportunities for geological conservation.

In order to conserve and enhance the natural environment, proposals which would result in significant harm to local, national or statutory sites of biological or geological importance or the broader GI network will be refused planning permission unless:

- All reasonable alternative locations with less harmful impacts are demonstrated to be unsuitable; and
- The proposal incorporates measures to avoid the harmful impacts arising, sufficiently mitigate their effects, or, as a last resort, compensate for them.

Where a proposal is likely to result in direct or indirect harm to an irreplaceable environmental asset of the highest designation, such as a Site of Special Scientific Interest (SSSI), ancient woodland or veteran trees, the granting of planning permission will be wholly exceptional.

- With regard to SSSIs, exceptions will only be made where benefits of development at the site clearly outweigh both the impacts on the features of the site and on any broader networks of SSSIs.
- In the case of ancient woodland and veteran trees exceptions will only be made where the need for and benefits of the development in that location clearly outweigh the loss.
- In all cases, any impacts or harm should not just be mitigated, but overall ecological benefits should be delivered.
- Planning permission for development directly or indirectly affecting protected or Priority species will only be permitted where it can be demonstrated that the species involved will not be harmed or appropriate mitigation measures can be put in place.

Tandridge District Council. Our Local Plan: 2033 (emerging)

Policy TLP35: Biodiversity, Ecology and Habitats

Proposals for development should protect biodiversity, geodiversity and natural habitats and contribute to the wider Green and Blue Infrastructure network in accordance with TLP30.

Proposals for development at any given site should ensure there is net gain in biodiversity. Schemes should provide for the maintenance, enhancement, and, if possible, expansion of important assets, by aiming to restore or create appropriate priority wildlife habitats and ecological networks to sustain and recover biodiversity.

Schemes should also ensure that natural features are protected by incorporation within the Green and Blue Infrastructure network, including sufficient buffering.

Biodiversity Opportunity Areas (BOAs)

The Council will conserve and enhance biodiversity and seek opportunities for Priority habitat creation and restoration particularly within and adjacent to Biodiversity Opportunity Areas (BOAs). Biodiversity Opportunity Areas are identified on the accompanying Policies Map.

Proposals for development must demonstrate how they will deliver appropriate net gains in biodiversity. Where proposals fall within or adjacent to a BOA, biodiversity measures should support that BOA's objectives as set out in the BOA-specific Policy Statements prepared by the Surrey Nature Partnership and the policies of the development plan.

Other Nationally and Locally Designated Sites

Proposals within or outside an SSSI, LNR, SNCI or pSNCI which would be likely to adversely affect the designated site (either individually or in combination with other developments) will not be permitted unless the benefits of the development clearly outweigh both the adverse impacts on the designated site and any adverse impacts on the wider biodiversity network.

Where adverse impacts are unavoidable they must be adequately and proportionately mitigated. If full mitigation cannot be provided, compensation will be required as a last resort.

pSNCI's will continue to be treated in the same manner as those sites with full SNCI status, until such time as an updated assessment takes place and a decision is made by the Surrey Local Sites Partnership.

All Nationally and Locally designated sites are identified on the accompanying Policies Map.

Environmental Initiatives

The Council will continue to support the work of the Downlands Partnership and the role it plays in protecting and enhancing habitats of the North Downs and the access to the countryside it facilitates.

Further detail regarding biodiversity, geodiversity and other elements of the natural environment will be set out in the Green and Blue Infrastructure Supplementary Planning Document.

Policy TLP37: Trees and Soft Landscaping

Trees and soft landscaping represent a fundamental part of the landscape of the District and its natural capital. Trees and soft landscaping also have an important role in limiting the impact of rainfall and increasing temperatures and they enhance leisure experiences. To ensure this remains the case, we will:

1. Resist the loss of trees, woodlands, hedgerows and vegetation of significant amenity, historic, cultural or ecological value, including proposals which have the potential to threaten the continued wellbeing of such trees and vegetation;
2. Require existing trees, hedgerows and vegetation to be positively integrated into the Site layout and protected in accordance with BS5837:2012 and any subsequent update, allowing for the future growth of trees and avoiding conflict with structures, hard surfaces and resident amenity;
3. Require comprehensive replacement planting to be provided where trees have been removed prior to planning permission being granted, unless the Council considers there is an overriding reason not to do so. Evidence of any such justification must be submitted within the application details before any deviation from the requirement to replant will be considered. Where there is evidence of deliberate neglect or damage to trees or woodland assets the deteriorated state of the asset will not be taken into account in any decision.
4. IV. Expect new development to positively integrate space for additional trees, hedgerows and vegetation wherever possible within layout design allowing for the future growth of trees both above and below ground and avoiding conflict with structures, hard surfaces and resident amenity;
5. Seek opportunities to improve links between green spaces to improve access for recreation and corridors which allow species to move between habitats.

Planning permission will be refused for development resulting in the loss or deterioration of ancient woodland and the loss of aged or veteran trees found outside ancient woodland (including from indirect impacts such as increased visitor pressure), unless the need for, and benefits of, the development in that location clearly outweigh the loss and a suitable compensation strategy exists.

Bats

All British species of bat are listed on the **Wildlife and Countryside Act 1981 (as amended) Schedule 5**. It is an offence to deliberately kill, damage, take (Section 9(1)) a bat; to intentionally or recklessly disturb a bat whilst it occupies a place of shelter or protection (Section 9(4)(b)); or to deliberately or recklessly damage, destroy or obstruct access to a bat roost (Section 9(4)(c)). Given the strict nature of these offences, there is an obligation on the developer and owner of a site to consider the presence of bats.

All British bats are listed on the **Conservation of Habitats and Species Regulations 2017, Schedule 2**. Regulation 43 strengthens the protection of bats under the 1981 Act against deliberate capture, injuring or killing (Regulation 43(1) (a)),

deliberate disturbance (Regulation 43 (1) (b)) and damage or destruction of a resting place (Regulation 43(1) (d)).

A bat roost is defined as any structure or place which is used for shelter or protection, irrespective of whether bats are resident. Buildings and trees may be used by bats for a number of different purposes throughout the year including resting, sleeping, breeding, raising young and hibernating. Use depends on bat age, sex, condition and species as well as the external factors of season and weather conditions. A roost used during one season is therefore protected throughout the year and any proposed works that may result in disturbance to bats, and loss, obstruction of or damage to a roost are licensable.

Application for a Natural England EPS Licence

Development works that may cause killing or injury of bats or that would result in the damage, loss or disturbance of a bat roost would require a Natural England (NE) Bat Mitigation Licence. For a Mitigation licence to be granted three tests must be met. Evidence is needed to determine these three tests:

- Whether there is a need for the development which justifies the impact on the European Protected Species (EPS);
- Whether there is an alternative which would avoid the impact and need for an EPS licence; and
- Whether mitigation proposed is sufficient to maintain the conservation status of the EPS in question.

A Mitigation Licence application will generally only be considered by NE on receipt of planning consent, and once any pre-commencement conditions of relevance to ecology have been discharged.

Licensing Routes

There are two licensing routes now available for bats, outlined below:

Full NE England EPS Mitigation Licence

The application comprises three components including:

- An application form (broad details of the applicant, site and proposals);
- A detailed Method Statement providing the survey methods and findings, impact assessment and mitigation measures (including detailed maps and schedule of works); and
- A Reasoned Statement outlining the “need" for the development and consideration of alternatives.

NE aim to determine the application within six weeks(although this can take longer).

NE Low Impact Class Licence (LICL)

This new route provides an alternative, quicker route (with a much-reduced application form, and a target of 10 days to determine an application). LICL is only available to Registered Consultants identified by NE if the following condition is met:

- Sites which support up to three low status roosts (day roosts, night roosts, feeding roosts and transitional roosts) of a maximum of three common species. The common species which can be covered by this licence include common pipistrelle, soprano pipistrelle, brown longeared, whiskered, Brandts, Daubenton"s and Natterer"s bat.
- This licence cannot be used in relation to trees.

All licensed works require evidence that there is a need for the development and that appropriate mitigation, including seasonal constraints and provision of alternative habitat and/or roosting structures is considered.

Before Natural England can confirm the Site is registered and licensable works can commence, an assessment of the three tests must be undertaken by the Registered Consultant.

Although this does not need to be submitted to NE, NE may subsequently undertake a review of the project and request to see all evidence as collected by the Consultant. This can only be undertaken following a survey and impact assessment which must be carried out in accordance with licence conditions and BCT survey guidelines.

Badger

Badger are subject to legal protection under the Protection of Badgers Act (1992). Works which may result in damage to a badger sett, or potential disturbance to badger using setts, must be undertaken under a Natural England licence.

Dormouse

Dormice are listed on the Wildlife and Countryside Act 1981 (as amended) Schedule 5. It is an offence to intentionally kill, injure, take (Section 9(1)) a dormouse; to intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a dormouse (Section 9(4)(a)); or to intentionally or recklessly disturb a dormouse while it is occupying a structure or place which it uses for that purpose (Section 9(4)(b)). Given the strict nature of these offences, there is an obligation on the developer and owner of a site to consider the presence of dormice.

Dormice are listed on the Conservation of Habitats and Species Regulations 2010, Schedule 2. Regulation 41

strengthens the protection of dormice under the 1981 Act against deliberate capture or killing (Regulation 41(1) (a)), deliberate disturbance (Regulation 41(1) (b))3 and damage or destruction of a resting place (Regulation 41(1) (d)).

Development works that may cause killing or injury of dormice or that would result in the damage, loss or disturbance of dormice would require a Natural England (NE) Mitigation Licence. Licensed works require evidence that the works entailing detrimental impacts are unavoidable, as well as appropriate mitigation, which may include seasonal constraints and provision of alternative habitat and/or sheltering places. A NE Mitigation Licence application can only be submitted on completion of surveys and receipt of planning consent. The application typically takes six weeks to process, after which mitigation could commence.

Application for a Natural England EPS Licence
Development works that may cause killing or injury of bats or that would result in the damage, loss or disturbance of a bat roost would require a Natural England (NE) Dormice Mitigation Licence. For a Mitigation licence to be granted three tests must be met. Evidence is needed to determine these three tests: whether there is a need for the development which justifies the impact on the European Protected Species (EPS); whether there is an alternative which would avoid the impact and need for an EPS licence; and whether mitigation proposed is sufficient to maintain the conservation status of the EPS in question. A Mitigation Licence application will generally only be considered by NE on receipt of planning consent, and once any pre-commencement conditions of relevance to ecology have been discharged. There are two licensing routes now available for bats, which comprise:

Full NE England EPS Mitigation Licence:
NE aim to determine the application within six weeks (although this can take longer).

- The application comprises three components including an application form (broad details of the applicant, site and proposals);
- A detailed Method Statement providing the survey methods and findings, impact assessment and mitigation measures (including detailed maps and schedule of works); and a Reasoned Statement outlining the "need" for the development and consideration of alternatives.

Great Crested Newt

All great crested newts (GCN) are listed on the Wildlife and Countryside Act 1981 (as amended) Schedule 5. It is an offence to deliberately kill, damage, take (Section 9(1)) a GCN; to intentionally or recklessly disturb a GCN whilst it occupies a place of shelter or protection (Section 9(4)(b)); or to deliberately or recklessly damage, destroy or obstruct access to a GCN place of shelter (Section 9(4)(c)). Given the strict nature of these offences, there is an obligation on the developer and owner of a site to consider the presence of bats.

All great crested newts are listed on the Conservation of Habitats and Species Regulations 2017, Schedule 2. Regulation 41 strengthens the protection of bats under the 1981 Act against deliberate capture or killing (Regulation 41(1) (a)), deliberate disturbance (Regulation 41(1) (b))[1] and damage or destruction of a resting place (Regulation 41(1) (d)).

Great crested newt resting place is defined as any structure or place which is used for resting, shelter or protection by GCN at any life stage, irrespective of whether or not GCNs are resident. A variety of aquatic, marginal and terrestrial habitats can be used by GCNs for a number of different purposes throughout the year including resting, sleeping, foraging, breeding, migrating and hibernating. Use depends on GCN age, sex and condition as well as the external factors of season and weather conditions. A resting place used during one season is therefore protected throughout the year and any proposed works that may result in disturbance to GCN, and loss, obstruction of or damage to a resting or sheltering place are licensable.

Application for a Natural England EPS Licence
Development works that may cause killing or injury of GCNs or that would result in the damage, loss or disturbance of a GCN resting or sheltering place would require a Natural England (NE) GCN Mitigation Licence.

For a Mitigation licence to be granted three tests must be met. Evidence is needed to determine these three tests: whether there is a need for the development which justifies the impact on the European Protected Species (EPS); whether there is an alternative which would avoid the impact and need for an EPS licence; and whether mitigation proposed is sufficient to maintain the conservation status of the EPS in question.

A Mitigation Licence application will generally only be considered by NE on receipt of planning consent, and once any pre-commencement conditions of relevance to ecology have been discharged.

There are two licensing routes now available for GCNs, which comprise:

[1] Relates specifically to deliberate disturbance in such a way as to be likely to significantly affect i) the ability of any significant group of animals of that species to survive, breed or rear or nurture their young or ii) the local distribution of that species.

Full NE England EPS Mitigation Licence:

- NE aim to determine the application within six weeks (although this can take longer).
- The application comprises three components including an application form (broad details of the applicant, site and proposals); a detailed Method Statement providing the survey methods and findings, impact assessment and mitigation measures (including detailed maps and schedule of works); and a Reasoned Statement outlining the 'need' for the development and consideration of alternatives.

NE Low Impact Class Licence

- This new route provides an alternative, quicker route (with a much-reduced application form, and a target of 10 days to determine an application).
- This Low Impact Class Licence is only available to Registered Consultants identified by NE.
- This licence might apply if the following criteria are met:
  - The footprint of the activity must not extend beyond a certain threshold size, in terms of area of impact affecting habitat used and relied upon by great crested newt (for resting). This size is determined in part by the distance from a waterbody used by GCN, with larger areas of land-take being acceptable at greater distance from waterbodies;
  - Typically the activity would be of a relatively short duration, i.e. up to six months and no longer than 12 months; and
  - Waterbodies used by great crested newts must not be affected; although ditches along linear schemes that are used by great crested newts may be temporarily impacted across a part of their length.
- All licensed works require evidence that there is a need for the development and that appropriate mitigation, including seasonal constraints and provision of alternative habitat is considered.
- Before Natural England can confirm the Site is registered and licensable works can commence, an assessment of the three tests must be undertaken by the Registered Consultant. Although this does not need to be submitted to NE, NE may subsequently undertake a review of the project and request to see all evidence as collected by the Consultant. This can only be undertaken following a survey and impact assessment which must be carried out in accordance with licence conditions and GCN best practice guidelines.

4.1 Great crested newts are listed as species of principal importance under the NERC Act (2006). Section 41 of the Act is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Reptiles

All UK reptiles and amphibians are legally protected from intentional and reckless killing and injury under the Wildlife and Countryside Act 1981 (as amended).

Birds

Birds and their nests are protected by the Wildlife and Countryside Act 1981 (as amended). This Act gives protection to all species of bird with regard to killing and injury, and to their nests and eggs with regard to taking, damaging and destruction. Certain species listed on Schedule 1 of the Act, are afforded additional protection against protection.

Hedgehog

4.2 Hedgehog are protected by British law under Schedule 6 of the Wildlife and Countryside Act 1981, making it illegal to kill or capture them using certain methods.

4.3 Hedgehog are also protected in Britain under the Wild Mammals Protection Act (1996), prohibiting cruelty and mistreatment.

4.4 Hedgehog are also listed as a Species of Principle Importance in England under the Natural Environment and Rural Communities (NERC) Act 2006 Section 41. Therefore, hedgehog are considered a material consideration with the planning system and are of particular relevance to the Site, as it comprises an open green space bound by urban development.

Plants

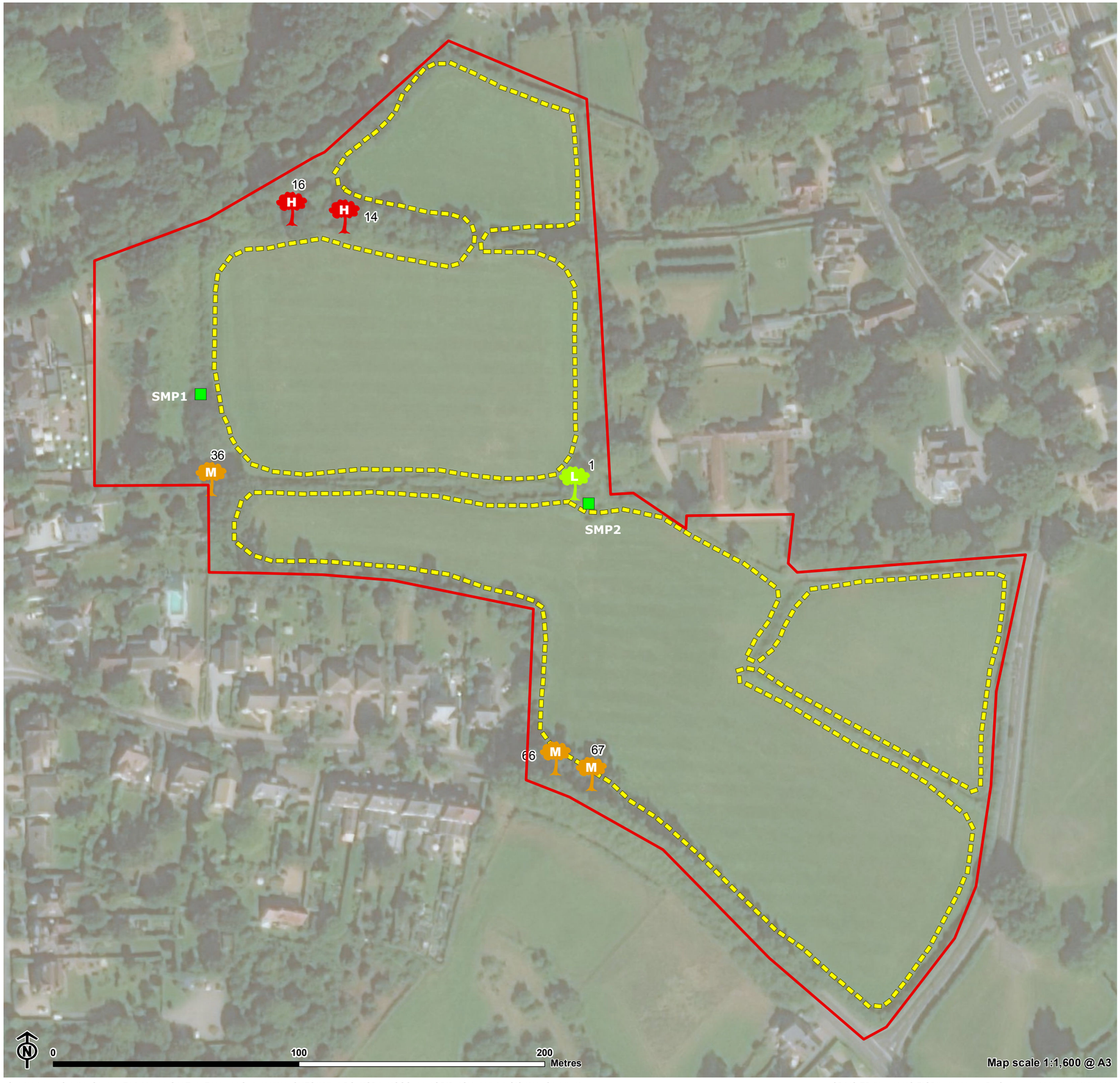
Certain plants are protected against uprooting and sale by the Wildlife and Countryside Act 1981 (as amended). In addition, it is illegal to cause certain plants listed on schedule 9 of the Wildlife and Countryside Act to grow in the wild, or to plant them in the wild.

Appendix D
Bat Survey Results

Land West of Station Road, Lingfield
Woolbro Group and Morris Investment

LUC

Figure D.1: Bat Survey



Site boundary
Static monitoring location
Transect route

Bat Roost Suitability (BRS)*

High
Moderate
Low

*Tree ID correlates with the Tree Constraints Plan produced by SJA Trees.
Drawing number: SJA TCP 21673-011.
January 2022

WOOLBRO MORRIS

CB:VG EB:llott_J LUC FIGD1_11169_r0_BatSurvey_20220126 03/03/2022
Source: LUC

Transect Surveys

Table D.1: Environmental Conditions During Transect Surveys

Survey Date	Sunrise / Sunset	Survey Timing		Survey Timing	Cloud Cover[22]	Temperature	Precipitation	Weather Conditions
		Start	Start					
06/10/2017	18:28	18:13	19:58	1	2	13ºC	Dry	Very light breeze with patchy cloud.

Table D.2: Transect Survey Data

Date	Surveyor	Transect	Time	Species recorded	Species from Sonogram	No. bats	Seen/ not seen (S/NS)	Activity (E/R/C/F)	Comments
06/10/2017	NB	Northern	18.39	Pip45		1	NS	C	Southwest of field
			18.43	Pip55?	Pip45	1	NS	C	One pass northwest of field
			18.44	Pip45		2	S	F	Foraging a lot north west of field
			18.48	?	Pip45	1	S	C	High over tree canopy flying north. Not heard.
			19.10	Pip45		1		C	Commuting
			19.16	Pip45		1		C	Single pass
	DG	Southern	18.20	Pip45		1	S	C	First bat seen flying along edge
			18.28	Pip45		1	S	C	Bat flying west along southern boundary edge at height
			18.45	Pip45		2	S	F	Foraging in oaks to northeast (off site)
			18:55	Pip45		2	S	S	Social interaction between two pipistrelles.
			19.02	Pip45		1	S	F/C	Distant bat over gardens to the south
			19.05	Pip45		1	S	F	Foraging in oak canopy for a brief period
			19.15	Pip	Pip45	1	S	F	Around oaks off site
			19.28	Pip45		1	S	F	Foraging briefly around old cottage farm
			19.38	Myotis sp.	Natterer's	1	S	C	Brief pass along southwest boundary
			19.48	Pip45		1	S	F	Foraging in southwest corner

[22] Oktas scale where 0 = sky completely clear, 4 = sky half cloudy, 8 = sky completely cloudy.

Static Monitoring

Table D.3: Environmental Conditions During Static Monitoring Surveys

Date	Sunrise	Sunset	Min Temperature (night)	Max Temperature (night)	Weather Conditions (night)
20/09/2017	06:43	19:03	13°C	15°C	Dry, light breeze, cool.
21/09/2017	06:45	19:01	6°C	15°C	Dry, foggy, light breeze, cold.
22/09/2017	06:47	18:58	9°C	14°C	Dry, light breeze, cool.
23/09/2017	06:48	18:56	8°C	15°C	Dry, misty, light breeze, cold.
24/09/2017	06:50	18:54	16°C	16°C	Dry, light breeze, mild.
25/09/2017	06:51	18:51	14°C	17°C	Dry, hazy, light breeze, mild.

Table D.4: Static Monitoring Data (SMP1 – Western Hedgerow)

Date	Brown long eared	Leisler s	*Myotis* sp.	Nathusius pipistrelle	Noctule	Common pipistrelle	Soprano pipistrelle	**Grand Total**
20/09/2017	3		2			5		**10**
21/09/2017	17	3	2	1		108	1	**132**
22/09/2017	13		1			14	1	**29**
23/09/2017	14		2	1		4		**21**
24/09/2017	4		1	1		9		**15**
25/09/2017	2		2		1	15		**20**
26/09/2017	10					7		**17**
Grand Total	**63**	**3**	**10**	**3**	**1**	**162**	**2**	**244**

Table D.5: Static Monitoring Data (SMP1 – Central Hedgerow)

Date	Brown long eared	Leisler s	*Myotis* sp.	Nathusius pipistrelle	Noctule	Common pipistrelle	Soprano pipistrelle	**Grand Total**
20/09/2017	2	1	1		1	13	1	**19**
21/09/2017	3		3			18	1	**25**
22/09/2017	9		4			6	1	**20**
23/09/2017	6	1	2	9		17	1	**36**
24/09/2017				2		18	1	**21**
25/09/2017	2		3		1	28	2	**36**
26/09/2017			3			14		**17**
Grand Total	**22**	**2**	**16**	**11**	**2**	**114**	**7**	**174**

Appendix E

Dormouse Survey Plan

Land West of Station Road, Lingfield
Woolbro Group and Morris Investment

Figure E.1: Dormouse Survey

Site boundary
Nest tube

0 100 200 Metres

Map scale 1:1,600 @ A3

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

CB:VG EB:llott_J LUC FIGE1_11169_r0_DormouseSurvey_20220126_03/03/2022
Source: LUC

Appendix F

Reptile Survey Results

- **Figure F.1: Reptile Survey Plan**
- **Table F.1: Environmental Conditions During Reptile Surveys**
- **Table F.2: Reptile Survey Results**

Land West of Station Road, Lingfield
Woolbro Group and Morris Investment

LUC

Figure F.1: Reptile Survey

Site boundary
Common lizard recorded
Reptile refugia

WOOLBRO MORRIS

CB:VG EB:llott_J LUC FIGF1_11169_r0_ReptileSurvey_20220126 03/03/2022
Source: LUC

Table F.1: Environmental Conditions During Reptile Surveys

Date	Start time	Temperature	Conditions	Surveyor
26/09/2017	10.30	17°C	Warm, dry and sunny. No breeze. 10% cloud cover	AC
28/09/2017	11.50	16°C	Partly cloudy with sunny intervals. Dry and still. Warm surface on tiles.	NB
03/10/2017	11.45	14-15°C	Mostly sunny with cloudy intervals. Still and dry under foot. Very light breeze.	NB
04/10/2017	13.30	14°C	Warm, dry with sunny spells. 60% cloud cover.	AC
06/10/2017	13.30	14-15°C	Partly cloudy, light breeze, dry under foot, mats warm	NB
11/10/2017	13.35	10°C	Cloudy with occasional sunny interval. Medium wind and wet under foot.	NB
13/10/2017	14.40	17°C	Overcast but dry and warm. Sunny spells and light breeze.	NB
16/10/2017	11.08	19°C	Sunny intervals with light breeze. Dry under foot.	NB
27/10/2017	11.50	15°C	Clear. No wind and mostly dry under foot. Warm mats.	NB

Table F.2 Reptile Survey Results

Ref	No. Refugia	Max Counts of Common Lizard by Survey Date																		Max daily adult count by location
		26/09/17		28/09/17		03/10/17		04/10/17		06/10/17		11/10/17		13/10/17		16/10/17		27/10/17		
		Adult	Juv	Adult	Juv	Adult	Juv	Adult	Juv	Adult	Juv	Adult	Juv	Adult	Juv	Adult	Juv	Adult	Juv	
A	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
B	5	0	0	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	**2**
C	10	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
D	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
E	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
F	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
G	10	4	1	0	0	6	1	2	0	2	1	1	0	0	1	1	0	0	0	**6**
H	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
I	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
J	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
K	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
L	20	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	**0**
Max adult count		**4**		**2**		**9**		**2**		**2**		**1**		**0**		**1**		**0**		