# Ecological Impact Assessment

## Land North of Thaxted Road, Saffron Walden

## 5th December 2023

Tyler Grange

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# Summary


S.1. This report has been prepared by Tyler Grange Group Limited on behalf of Kier Ventures Ltd. It sets out the findings of an Ecological Impact Assessment at Land North of Thaxted Road, Saffron Walden, hereinafter referred to as 'the site'. The assessment is to inform an outline planning application for development of the site for up to 55 dwellings, associated landscaping and open space, with access from Knight Park.

S.2. An 'extended' Phase 1/UK Habitat Classification (UK Habs) survey and Preliminary Bat Roost Assessment was undertaken on the 18th September 2023. A summary of the results are as follows:

- The site is comprised of former arable land which has grown into ruderal/ephemeral habitat, discrete areas of scrub, and lines of trees; and
- The site contains habitats that could support amphibians, badgers, bats, breeding birds, and reptiles.

S.3. The proposed development is not considered to impact any designated sites, largely owing to the distance and the lack of impact pathways between the site and the nearest designations.

S.4. Habitat to be lost as a result of the proposed development is of negligible ecological importance. The proposed habitat to be created within the scheme will feature higher distinctiveness habitat, including species-rich grasslands and ponds, and will overall represent an enhancement to the biodiversity value of the site.

S.5. The site features suitable habitat for amphibians, badgers, bats, breeding birds, and reptiles. Where habitat of value to these species will be impacted through development, measures will be set out in a CEMP to ensure protected species are not inadvertently harmed. Post-development, details set out in a LEMP will ensure that created habitat is managed favourably for protected species, and specific enhancements such as bat and bird boxes will be included as well. Both the CEMP and the LEMP are expected to be secured through planning conditions.

S.6. The BNG metric has assessed that the scheme will achieve net gain of 4.27 habitat units (25.69%) and 0.28 linear units (10.68%) and is therefore in line with local and national policy.

S.7. Overall, the development is considered to be in conformity with policies GEN7, ENV7, and ENV8 of the Uttlesford District Council Local Plan, as well as national policy, all of which is listed in **Appendix 2**.

# Section 1: Introduction and Context

## Introduction

1.1. This report has been prepared by Tyler Grange Group Ltd on behalf of Kier Ventures Ltd. It sets out the findings of an Ecological Impact Assessment (EcIA) at Land North of Thaxted Road, Saffron Walden (OS Grid Reference TL 55190 37448), hereafter referred to as 'the site'. See **Figure 1.1** for the red line boundary.


**Figure 1.1: Red line boundary**

1.2. This assessment has been undertaken to inform an outline planning application for development of the site for up to 55 dwellings, associated landscaping and open space, with access from Knight Park. The indicative site proposals are shown in **Appendix 1**.

## Site Context

1.3. The site is approximately 4.3ha in size and comprises former arable land which has grown out into ruderal/ephemeral habitat. Areas of mixed scrub are also present, and some of the site boundaries feature lines of trees. Knight Park retail and industrial estate is located immediately south of the site, with Thaxted Road (B184) beyond that. The site is at the urban extent of Saffron Walden, with the north and east of the site featuring an open, arable landscape. A separate housing development is currently under construction to the immediate northwest of the site boundary.

1.4. Tyler Grange produced an EcIA for a similar scheme to the south of Thaxted Road in 2022, to support a planning application made to Uttlesford District Council (UDC) and determined by the Planning Inspectorate. The planning application reference is UTT/22/3258/PINS and the EcIA reference is **14764/R03a**. A data search and protected species surveys were undertaken on both the sites to the north and south of Thaxted Road to support **14764/R03a**, therefore, the data collected is relied upon in this report to support the application to the north of Thaxted Road.

## Purpose

1.5. This report:

- Uses available background data and results of the field surveys to describe and evaluate the ecological features present within the likely "Zone of Influence"[1] [2] (ZoI) of the proposed development;
- Describes the actual or potential ecological issues and opportunities that might arise as a result of the site's development.
- Where appropriate, makes commitments for mitigation measures for adverse effects on ecological features as well as ecological enhancements, to ensure conformity with policy and legislation listed in **Appendix 2**; and
- Can be used to inform a planning application for the site's development.

1.6. This assessment and the terminology used are consistent with published guidance[3] [4]. A full methodology is set out in **Appendix 3**.

## Methodology

1.7. The habitat survey comprised an extended Phase 1[5] and UK Hab[6] survey.

1.8. The data search was based on records purchased from Essex Field Club (EFC), as well as data from the Multi-Agency Geographic Information for the Countryside (MAGIC)[7].

1.9. The methodologies for protected species surveys are set out in **Appendices 4-6**.

[1] CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.
[2] Defined as the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries.
[3] CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester.
[4] CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.
[5] JNCC. (2010) *Handbook for Phase 1 Habitat Survey – a Technique for Environmental Audit*. Joint Nature Conservation Committee, Peterborough.
[6] UKHab Ltd (2023) *UK Habitat Classification Version 2.0* (at [redacted])
[7] https://magic.defra.gov.uk/magicmap.aspx

## Quality Control

1.10. All ecologists at Tyler Grange Group Limited are members of the Chartered Institute of Ecology and Environmental Management (CIEEM) or are working towards membership, and act under the direction of members and abide by the Institute's Code of Professional Conduct[8].

## Limitations and Assumptions

1.11. This assessment has been conducted based on a different red line boundary to that presented in **Figure 1.1**. The areas not surveyed, and areas surveyed are presented in the following plans:

- 14764/P13a Habitat Features Plan
- 14764/P14a Bat Survey Plan
- 14764/P15a Reptile Survey Plan

1.12. The additional area included within the boundary shown in Figure 1.1 is understood to be dominated entirely comprise hardstanding, and so this is not considered to be a significant limitation to the conclusions of this assessment.

1.13. Autumn bat data was not collected from the static detector deployed on site owing to a technical failure with the equipment. However, a transect survey was still undertaken in autumn, and static data is available from both spring and summer. Furthermore, static data from autumn was collected on the adjacent site to the south of Thaxted road and is presented in **14764/R03a**. Given the availability of transect data and nearby static bat data, it is considered that the assessment of importance of bat populations using the site made within this report is still accurate, and the mitigation proposed is still appropriate and proportionate.

[8] CIEEM (2022) *Code of Professional Conduct*. CIEEM, Winchester.

# Section 2: Ecological Features and Evaluation

## Designated Sites

2.1. The data search returned no European statutory designated sites within 10km or nationally designated sites within 2km. Whilst no Sites of Special Scientific Interest (SSSI) fall within 2km of the site, the site is located within the impact risk zone (IRZ) of Debden Water SSSI, located c.3.5km southwest of the site. However, residential development is not described within the criteria of the IRZ requiring the local planning authority (LPA) to consult with Natural England (NE), and so this is not considered further within this report.

2.2. The data search returned five non-statutory designated sites within 2km of the site. These are detailed in **Table 2.1** below.

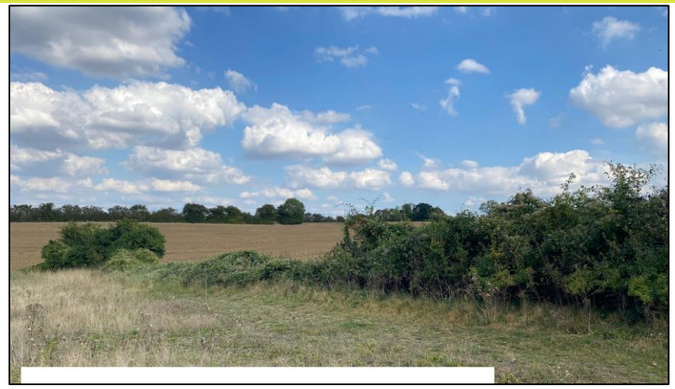
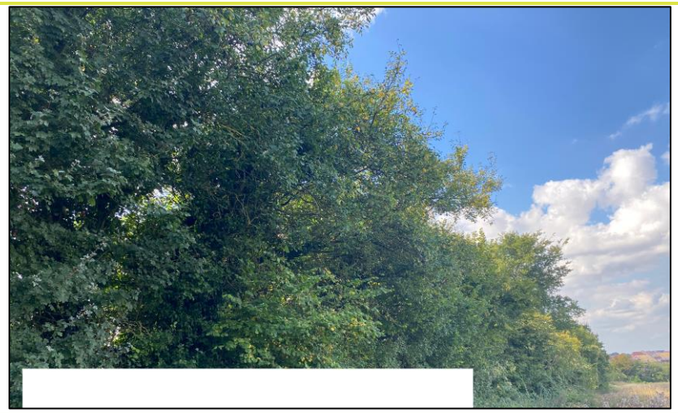
**Table 2.1. Designated Sites within 2km of the site boundary**

| Designated site | Distance and direction from site | Description | Ecological Importance |
|---|---|---|---|
| **Roos Hill, Saffron Walden Special Roadside Verges Local Wildlife Site (LWS)** | c.1.1km southwest of the site | Designated for its road verge supporting chalk grassland flora. | County |
| **Fulfen Slade Lane LWS** | c.1.1km southwest of the site | Designated for its varied woodland and grassland flora. | County |
| **Pounce Wood LWS** | c.1.2km north of the site | Designated for its replanted woodland, including Beech (*Fagus sylvatica*), Spruce (*Picea* sp.) and other conifers. | County |
| **Crowney Wood LWS** | c.1.8km southwest of the site | Designated for its ancient woodland, dominated by Ash (*Fraxinus excelsior*). | County |
| **Audley End Park Wall Special Roadside Verge LWS** | c.1.9km west of the site | Designated for its road verge, including a large population of Lesser Calamint (*Clinopodium calamintha*) and Wild Clary (*Salvia horminoides*), both Essex Red Data List species. | County |

## Habitats and Flora

2.3. The habitats present on site are summarised below in **Table 2.2**, along with a description of the composition of the main plant species present and an assessment of their ecological importance. The location of habitats are shown on the Habitats Features and Preliminary Bat Roost Assessment Plan **14764/P13a**.

**Table 2.2. Habitats and Flora**

| Habitat | Description and Species | Ecological Importance | Photograph |
|---|---|---|---|
| **Ruderal/Ephemeral** | The two fields which make up the site comprise 3.94ha of former arable land which has grown out into ruderal/ephemeral habitat, featuring species such as field brome *Bromus arvensis*, creeping thistle *Cirsium arvense*, bristly oxtongue *Helminthotheca echioides*, false oat-grass *Arrhenatherum elatius*, dandelion *taraxacum officinale*, ragwort *Senecio jacobaea*, common nettle *Urtica dioica*, teasle *Dipsacus fullonum*, and greater burdock *Arctium lappa*. | The habitat features a range of common flowering plant species, particularly species indicative of nutrient enrichment (nettle) which are typical given the former arable use of the land. This habitat is common and widespread, and is considered to be of **negligible ecological importance**. |  |
| **Mixed scrub** | The site features some isolated patches of scrub habitat at the boundaries of the site, totalling 0.11ha, and dominated by bramble *Rubus fruticosus* and blackthorn *Prunus spinosa*, but also featuring old man's beard *Clematis vitalba*, rosebay willowherb *Chamaenerion angustifolium*, creeping thistle, bristly oxtongue, hogweed *Heracleum sphondylium*, teasle, common nettle, dogrose *Rosa canina*, broad-leaved dock *Rumex obtusifolius*, mugwort *Artemisia vulgaris*. | The pockets of scrub are small, isolated, and generally dominated by common plant species (bramble and blackthorn). It is considered that this habitat is of **negligible ecological importance**. |  |
| **Line of trees** | Parts of the site boundary features lines of trees, measuring 656m in total length. No mature trees are present within this habitat, and it was noted that some specimens still had protective coverings at the base of the trunk, suggesting recent planting.<br><br>Species present include hazel *Corylus avellana*, hawthorn *Crataegus monogyna*, ash *Fraxinus excelsior*, blackthorn, field maple *Acer campestre*, hornbeam *Carpinus betulus*, elder *Sambucus nigra*, and crab apple *Malus sylvestris*. | This habitat features a common assemblage of tree species, none of which are mature. As such, this habitat is considered to be of **negligible ecological importance**. |  |

## Protected and Notable Species

2.4. The below section sets out the potential for protected species on site. Species which are considered likely absent from the site based on professional judgement, following consideration the of habitats within the site, signs of species presence at the time of survey and data search records, are not discussed.

### Amphibians

2.5. Three records of amphibians were returned from the data search, all of which were common frog *Rana temporaria*. No records of great crested newt *Triturus cristatus* (GCN) were returned from a 2km data search from the site boundary.

2.6. No ponds exist within the site boundary. The nearest off-site pond is over 250m away from the site boundary (c.300m north of the site). Whilst the tree lines and patches of scrub would present suitable terrestrial habitat for GCN resting, foraging, and dispersal, the vast majority of the site comprises unsuitable habitat for GCN.

2.7. Given the distance between the nearest pond and the site and the relatively limited suitable terrestrial habitat on site, any population of GCN using the site would be of no more than **local ecological importance**

### Badger

2.8. One record of badger *Meles meles* was returned from the data search within 500m of the site.

2.9. There is an area of woodland immediately north of the site boundary, and it is connected to the site through lines of trees that are present on the boundaries. These areas of habitat are suitable for badger foraging and sett-digging.

2.10. Mammal tracks were observed on site during the Phase I survey, and badgers are known to be active in the area from neighbouring works undertaken. A badger sett has not been identified on site, but badgers are highly mobile and can dig new setts very quickly. As a result, measures to prevent a breach of legislation are detailed in **Section 3**.

2.11. Badgers are protected owing to their threat of persecution rather than their conservation status, and so any badgers using the site would be of **negligible ecological importance**.

### Bats

2.12. The data search returned nine records of bat species, all of which were common pipistrelle *Pipistrellus pipistrellus*, or unidentified pipistrelle species, although no records are more recent than 2005. Two EPS licences for bat were also returned within 2km of the site boundary, as listed below:

- One bat licence for Common pipistrelle *Pipistrellus pipistrellus* and Brown long-eared bat *Plecotus auritus* was returned c. 1.53km east of the site, allowing destruction of a resting place (2014-5818-EPS-MIT); and

- One bat licence for Common pipistrelle *Pipistrellus pipistrellus* was returned c. 1.49km north of the site, allowing damage and destruction of both breeding and resting sites (2015-13544-EPS-MIT).

2.13. All trees on site were subject to a PBRA, of which six were recorded as having low potential to support roosting bats. The locations of these trees are shown in **14764/P13a**.

2.14. The site features suitable foraging and commuting habitat in the form of lines of trees, which also provide connectivity to off-site habitat of greater suitability, such as the woodland to the north of the site. However, the suitable habitat on site is limited to the boundaries, with the vast majority of the site comprising ruderal/ephemeral land that is unsuitable for commuting and foraging.

2.15. Both automated and manned bat activity surveys were undertaken seasonally on the site, the full methods and results for which can be found in **Appendix 4** and presented in **14764/P15a Bat Survey Plan**. In summary, the following species of bat were recorded on site:

- Barbastelle *Barbastella barbastellus*;
- Common pipistrelle *Pipistrellus pipistrellus*;
- *Nyctalus* sp;
- Soprano pipistrelle *Pipistrellus pygmaeus*.

2.16. All of the bat activity recorded on site during the transects was captured along the footpath which separates the two fields comprising the site. Additionally, all bat activity captured during the transects was from pipistrelle species. Considering the results of the transects, and given each side of the footpath is lined with trees creating a dark linear corridor, this is likely the most important foraging and commuting resource on the site for bats. The transects to the south of Thaxted Road observed a barbastelle on site, as reported in **14764/R03a**. Barbastelle was not observed during the transects for this site in 2022.

2.17. The static detector surveys recorded much greater pipistrelle activity than from any other species. Barbastelle and nyctalus bats were also present, but a very low level of activity was recorded for these species. The results of the static surveys suggest the site is generally used by common and widespread bat species, but is of less importance to rarer species like Barbastelle, given the lower level of activity recorded.

2.18. The habitat on site which is suitable for bats (lines of trees) is very common in the local landscape, coupled with the vast majority of species recorded being common and widespread, it is considered that the assemblage of bat species using the site is of no more than **local ecological importance**.

## Birds

2.19. From the data search, 12 records of species protected under Schedule 1 of the Wildlife and Countryside Act[9] were returned within 2km of the site, which were as follows: barn owl *Tyto alba*, firecrest *Regulus ignicapilla* and red kite *Milvus milvus*.

[9] https://www.legislation.gov.uk/ukpga/1981/69/schedule/1

2.20. 8 records of Species of Principal Importance (SoPI)[10] were returned within 2km of the site, which were as follows: bullfinch *Pyrrhula pyrrhula*, dunnock *Prunella modularis*, grey partridge *Perdix perdix*, starling *Sturnus vulgaris*, tree sparrow *Passer montanus*, yellowhammer *Emberiza citrinella*.

2.21. 53 records of species on the BoCC Red list[11] were returned within 2km of the site, which were as follows: greenfinch *Chloris chloris*, grey partridge, house martin *Delichon urbicum*, house sparrow *Passer domesticus*, mistle thrush *Turdus viscivorus*, starling, swift *Apus apus*, tree sparrow and yellowhammer.

2.22. 27 records of species on the BoCC Amber list were returned within 2km of the site, which were as follows: black-headed gull *Chroicocephalus ridibundus*, bullfinch, dunnock, lesser black-backed gull *Larus fuscus*, mallard *Anas platyrhynchos*, moorhen *Gallinula chloropus*, sparrowhawk *Accipiter nisus*, tawny owl *Strix aluco* and white-tailed eagle *Haliaeetus albicilla*.

2.23. The majority of the site is former arable land which has grown out into ruderal/ephemeral habitat, and so would be suitable for ground-nesting birds. The scrub and lines of trees also provide further opportunities for breeding, feeding, and nesting birds.

2.24. Given the suitability of habitat on the site, breeding bird surveys were undertaken in 2022. The full methods and results are available in **Appendix 4**.

2.25. A range of common and widespread bird species were observed during the surveys, with probable breeding territories identified for the following species:

- Dunnock *Prunella modularis*
- Wood pigeon *Columba palumbus*
- Wren *Troglodytes troglodytes*
- Whitethroat *Sylvia communis*
- Song Thrush *Turdus philomelos*
- Greenfinch *Chloris chloris*
- Linnet *Linaria cannabina*
- Blackbird *Turdus merula*

2.26. All species observed exhibiting breeding behaviour on the site typically nest in hedgerow, tree, or scrub habitat. Whilst Skylark was observed flying over the site on a single occasion and in fields adjacent to the site, no breeding behaviour was observed on site during the surveys.

2.27. The off-site habitats nearby comprise arable fields with mature trees and hedgerows throughout the wider landscape. As such, given that the surrounding habitats are similar to those on site, it is unlikely that the bird assemblage utilising the site would be solely reliant upon resources within it. Therefore, the breeding bird assemblage recorded is considered to be of no more than **local ecological importance**.

[10] UK priority species are those subject to conservation action and referred to as Species of Principal Importance (SoPIs). They are listed at Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act states that local planning authorities must have regard for the conservation of SoPIs.

[11] [redacted]

## Reptiles

2.28. Three records of grass snake *Natrix helvetica* were returned from the data search. No other reptile species were identified in the data search.

2.29. The tree lines and the small areas of scrub represent suitable habitat for reptile sheltering, foraging, and dispersal.

2.30. Reptile surveys were undertaken in 2022 to determine presence/likely absence of reptiles on site. Two juvenile common lizards *Zootoca vivipara* were recorded during the surveys, the locations they were observed in are shown in **14764/P14a Reptile Survey Plan**.

2.31. Given the low numbers of reptiles recorded and the relatively limited availability of suitable habitat on site or in the immediate vicinity, it is considered that any population of reptiles using the site would be of no more than **local ecological importance**.

# Section 3: Ecological Impacts, Mitigation, and Enhancement

## Proposed Development

3.1. The proposals comprise an outline planning application for development of the site for up to 55 dwellings, associated landscaping and open space, with access from Knight Park.

3.2. The potential impacts at this site as a result of the proposed development are set out below, with reference to relevant legislation and planning policy.

## Designated Sites

### Non-statutory Sites

3.3. There are no designated sites within 10km of the site. The nearest LWS to the site is over 1km away. The proposed development is not considered to impact any local wildlife sites, largely owing to the distance and the lack of impact pathways between the site and the nearest designations.

## Habitats and Flora

3.4. All habitat on site is considered to be of negligible ecological importance, and therefore the proposals to redevelop the site present an opportunity to introduce habitat of a higher distinctiveness.

3.5. The 3.94ha of ruderal/ephemeral habitat and 0.08ha of scrub habitat which makes up the vast majority of the site will be entirely replaced by a combination of hardstanding, buildings, gardens, and SuDS features to facilitate the development. Additional habitat will also be introduced as a part of the landscaping proposals, including a continuous area of 0.336ha of scrub, 0.791ha of modified grassland, 72 newly planted trees, and a dedicated species-rich grassland area comprising 1.11ha of other neutral grassland.

3.6. The tree lines along the boundaries of the site will mostly be retained, with the exception of a 14m section removed to facilitate access from Knight Park to the south. Otherwise, existing gaps will be used for access points so as to avoid removing any further linear habitat. To compensate for this short stretch of line of trees which is to be removed, at least 40m of native, species-rich hedgerow with trees is proposed to be planted around the boundary of the western parcel of the site.

3.7. The proposed habitat creation associated with the development will represent an enhancement to the biodiversity value of the site, and will more than compensate for the loss of habitat of negligible importance.

3.8. Management prescriptions for the creation and forward maintenance of the proposed habitat will be detailed within a Landscape and Ecological Management Plan (LEMP), which can be secured by a condition attached to a planning decision.

## Protected and Notable Species

### Amphibians

3.9. GCN are listed on Appendix II of the Bern Convention and on Annexes II and IV of the EU Natural Habitats Directive. In England and Wales the great crested newt is protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2010 and under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). In Scotland, great crested newts are protected under Schedule 2 of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended).

3.10. The lines of trees on site will mostly be retained within the development, with 14m being removed to facilitate access. Of the 0.11ha of scrub on site, 0.08ha is to be removed to facilitate development. As this habitat is suitable for GCN, measures to protect them from injury or death during the construction phase will be set out in a Construction Environment Management Plan (CEMP), and are summarised below:

- All contractors will be given a toolbox talk by a suitably qualified ecologist (SQE) prior to commencement of works;
- Habitats to be retained in the development will be marked out by a barrier to prevent unnecessary vegetation removal and discourage the storage of materials here;
- A long cut (>30cm) of vegetation associated with the scrub and line of trees habitat will be undertaken, followed by a check for amphibians by the SQE; and
- A hand search of possible refuges of the vegetation will be undertaken by the SQE, before they supervise a destructive search, and ultimately the complete removal of the vegetation.

3.11. Post-development, the habitat on site will include larger, continuous areas of scrub, other neutral grassland with a varied sward, 40m of newly planted hedgerow, and SuDS ponds, to be managed to maximise their biodiversity value. The favourable management of these habitats for GCN will be set out in a LEMP, to be secured by planning condition.

3.12. Overall, the development will retain the majority of valuable habitat for GCN (lines of trees) and lead to an enhancement in the availability of both terrestrial and aquatic habitat on site.

### Badger

3.13. The Protection of Badgers Act 1992 consolidates the previous Badger Acts of 1973 and 1991. The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status. As well as protecting the animal itself, the 1992 Act also makes the intentional or reckless destruction, damage, or obstruction of a badger sett an offence.

3.14. Whilst no badger setts have been identified on site, badgers are known to be active in the area, and there is evidence of their presence on site.

3.15. A pre-commencement check for any new badger sett creation within 30m of the works area will be undertaken, and the status of the existing inactive sett will be checked. Any badger

setts occurring within 30m of proposed works will be monitored up until the commencement of works, assuming the sett is determined to be inactive from the monitoring period.

3.16. If an active badger sett is identified and falls within 30m of proposed works, then a licence will be applied for through Natural England. Mitigation will be devised, if necessary, at that stage.

3.17. During the construction phase, precautionary methods would be implemented and detailed in a CEMP to avoid harm to badgers, including:

- All earth works and excavations which could potentially trap badger should either be covered at the end of daily operations where practicable or include a ramp to escape;
- Work is to be undertaken during the daytime where practicable, when badgers are least active, to minimise disturbance to their foraging activities; and
- Overnight lighting should be kept to a minimum.

3.18. With the implementation of these measures, any harm to badgers will be prevented during the construction phase.

## Bats

3.19. As European protected species, all UK bats receive legal protection in England under the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act (WCA) 1981 (as amended).

3.20. Six trees on site were identified as having a low potential to support roosting bats, as shown in **14764/P13a**. All of these trees are to be retained within the scheme, and will be protected during the construction phase through the implementation of buffers. Works near the tree lines will also be limited to daylight hours, with no overnight illumination occurring during construction, to avoid impacting foraging and commuting bats. Such measures will be detailed in a CEMP, to be secured by planning condition.

3.21. Post-development, the scheme will include a wider range of habitats capable of supporting foraging bats, including a larger area of continuous scrub, 40m of species-rich hedgerow, species-rich grassland with a diverse array of flowering plants to attract prey for bats, and ponds. The tree lines will also mostly be retained and can continue to be used as a commuting and foraging resource.

3.22. The planting of 72 trees will also provide new foraging resources in the long term, as well as potentially offering roosting features for bats once the trees reach maturity. In the shorter term, bat boxes will be installed in appropriate locations on existing trees and buildings to provide an immediate enhancement to the roosting options on site for bats. Measures to ensure the favourable management of habitat for bats, as well as the number, specification, and location of bat boxes, will be detailed in a LEMP, to be secured by planning condition.

## Birds

3.23. In England and Wales, birds and their nests are protected under the Wildlife and Countryside Act (1981) (as amended). All breeding birds, their nests, eggs and young are protected under

the WCA 1981 (as amended), which makes it illegal to knowingly damage or destroy a nest site while it is in use or being built. Species listed under Schedule 1 of the WCA 1981 are afforded additional protection from disturbance while breeding.

3.24. The site is considered to support a common and widespread assemblage of breeding birds. Whilst there are several breeding species using the site, none of them are likely to use the habitat being lost to development, and suitable nesting habitat for these species (tree lines) is to be mostly retained within the scheme.

3.25. Where a section of line of trees is to be removed, vegetation removal should be undertaken outside of the nesting season (generally taken as March to August inclusive, although birds can next at any time of year) or preceded by a check for active nests by a SQE. Should any active nests be found, an appropriate buffer would be maintained until such time as the nest is deemed to be no longer supporting young, as confirmed by the ecologist on site. Such measures would be set out in a CEMP.

3.26. Post-development, the introduction of a greater area of scrub, 40m of species-rich hedgerow, and a dedicated area of species-rich grassland will create a wider variety of nesting habitat on the site, as well as enhancing foraging opportunities for birds. Furthermore, bird boxes will be installed in suitable locations on trees and buildings within the scheme, to enhance nesting opportunities for birds.

3.27. A LEMP, which can be secured by planning condition, will detail the number, location, and specification of bird boxes, and the scheme overall will represent an enhancement to the onsite foraging, breeding, and nesting habitat for a range of bird species.

### Reptiles

3.28. All reptiles are protected under the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally (or recklessly, in Scottish law) kill or injure a reptile.

3.29. During construction works, the removal of 0.08ha of scrub and 14m of line of trees has potential to disturb, injure, or kill a reptile which may be present. Whilst the ruderal/ephemeral habitat was not considered to be suitable for reptiles, the survey results demonstrated that reptiles are using these areas, and so vegetation removal here will be subject to the same precautionary measures. Such activity will be supervised by a SQE. Details of this supervision will be included within a CEMP, summarised below, to be secured by a suitably worded planning condition.

- All contractors will be given a toolbox talk by a SQE prior to commencement of works;
- Habitats to be retained in the development will be marked out by a barrier to prevent unnecessary vegetation removal and discourage the storage of materials here;
- A long cut (>30cm) of vegetation associated with the scrub and line of trees habitat will be undertaken, followed by a check for amphibians by the SQE; and
- A hand search of possible refuges of the vegetation will be undertaken by the SQE, before they supervise a destructive search, and ultimately the complete removal of the vegetation.

3.30. Post-development, the habitat on site will include larger, continuous areas of scrub, 40m of newly planted species-rich hedgerow, and other neutral grassland with a varied sward. The favourable management of these habitats for reptiles will be set out in a LEMP, to be secured by planning condition.

3.31. Overall, the development will lead to an enhancement in the availability of habitat suitable for reptiles on site.

# Section 4: Biodiversity Net Gain

4.1. Policy GEN7 of the Uttlesford District Council Local Plan requires development to seek an enhancement to biodiversity through the creation of appropriate habitat. The NPPF requires developments to demonstrate a net gain in biodiversity.

4.2. A development achieves biodiversity net gain when the total biodiversity units present post-development is higher than that of the biodiversity units present on site prior to development. Defra's 4.0 metric has been used to calculate the biodiversity value of the site before and after development in terms of "biodiversity units" to calculate an overall biodiversity net gain or loss.

## Existing Habitats

4.3. The following habitats are present within the red line boundary of the site and are shown on Habitat Features and Bat Roost Assessment Plan **14764/P13a**.

**Table 4.1. Baseline Habitats and Areas Retained and Enhanced**

| Broad Habitat | Habitat Type | Area (hectares) | Distinctiveness | Condition | Area retained (hectares) | Area enhanced (hectares) | Area lost (hectares) |
|---|---|---|---|---|---|---|---|
| Sparsely vegetated land | Ruderal/ Ephemeral | 3.94 | Low | Moderate | 0 | 0 | 3.94 |
| Heathland and shrub | Mixed scrub | 0.11 | Medium | Moderate | 0.03 | 0 | 0.08 |

**Table 4.2. Baseline Hedgerows and Lengths Retained and Enhanced**

| Hedgerow type | Length (km) | Distinctiveness | Condition | Length retained (km) | Length enhanced (km) | Length lost (km) |
|---|---|---|---|---|---|---|
| **Line of Trees** | 0.656 | Low | Moderate | 0.642 | 0 | 0.014 |

## Proposed Habitats

4.4. The proposals, as shown within **Appendix 1**, have been used to calculate the proposed habitat areas. The rationale for target condition assessments is detailed within the metric **14764/BNGa**.

**Table 4.3. Created and Enhanced Habitats**

| Broad Habitat | Proposed habitat | Area (hectares) | Created/enhanced | Distinctiveness | Target condition |
|---|---|---|---|---|---|
| Urban | Developed land; sealed surface | 1.252 | Created | V.Low | N/A - Other |
| Heathland and shrub | Mixed scrub | 0.336 | Created | Medium | Moderate |
| Grassland | Modified grassland | 0.791 | Created | Low | Moderate |
| Urban | Vegetated garden | 0.414 | Created | Low | Condition Assessment N/A |
| Urban | Sustainable drainage system | 0.117 | Created | Low | Poor |
| Grassland | Other neutral grassland | 1.11 | Created | Medium | Moderate |
| Individual trees | Urban tree | 2.345 | Created | Medium | Moderate |
| **A net gain of 4.27 habitat units, +25.69%** | | | | | |

**Table 4.4. Created linear habitat**

| Proposed habitat | Length (km) | Created/enhanced | Distinctiveness | Target condition |
|---|---|---|---|---|
| Species-rich native hedgerow with trees | 0.04 | Created | High | Moderate |
| **A net gain of 0.28 linear habitat units, +10.68%** | | | | |

## Results Summary

4.5. As described within the Defra 4.0 metric **14764/BNGa** and summarised below in **Figure 4.1**, based on the habitats present on site that will be lost and those to be created, the development would result in a gain of 4.27 habitat units and 0.28 linear units. This is a percentage gain of 25.69% in habitat units and 10.68% in linear units.

| FINAL RESULTS | | |
|---|---|---|
| Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement) | *Habitat units* | 4.27 |
| | *Hedgerow units* | 0.28 |
| | *Watercourse units* | 0.00 |
| Total net % change (Including all on-site & off-site habitat retention, creation & enhancement) | *Habitat units* | 25.69% |
| | *Hedgerow units* | 10.68% |
| | *Watercourse units* | 0.00% |

**Figure 4.1: Biodiversity Net Gain Assessment Results Summary, taken from the Defra 4.0 Metric.**

## Management

4.6. The results of the Defra 4.0 metric are based on the habitats within the site being maintained at a certain condition, as prescribed by the condition assessment sheets published by Defra.

4.7. Details of habitat establishment and long-term management will be provided through the production of a Landscape and Ecological Management Plan (LEMP). The LEMP would set out the prescriptions for the establishment and maintenance of the habitats on site for 30 years.

# Section 5: Conclusions

5.1. The proposed development is not considered to impact any designated sites, largely owing to the distance and the lack of impact pathways between the site and the nearest designations.

5.2. Habitat to be lost as a result of the proposed development is of negligible ecological importance. The proposed habitat to be created within the scheme will feature higher distinctiveness habitat, including species-rich grasslands and ponds, and will overall represent an enhancement to the biodiversity value of the site.

5.3. The site features suitable habitat for amphibians, badgers, bats, breeding birds, and reptiles. Where habitat of value to these species will be impacted through development, measures will be set out in a CEMP to ensure protected species are not inadvertently harmed. Post-development, details set out in a LEMP will ensure that created habitat is managed favourably for protected species, and specific enhancements such as bat and bird boxes will be included as well. Both the CEMP and the LEMP are expected to be secured through planning conditions.

5.4. The BNG metric has assessed that the scheme will achieve net gain of 4.27 habitat units (25.69%) and 0.28 linear units (10.68%) and is therefore in line with local and national policy.

5.5. Overall, the development is considered to be in conformity with policies GEN7, ENV7, and ENV8 of the Uttlesford District Council Local Plan, as well as national policy, all of which is listed in **Appendix 2**.

# Appendix 1: Proposed Site Plan

LEAP Children's Play Area.
See MLLA drawing
PR162-02REVA

N

0 m 10 m 20 m 30 m 40 m 50 m
Scale

KIER

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client: KIER GROUP | Drawing Title: SKETCH SITE LAYOUT | | | | | Project No: 3119 | Class: C | Dwg No: 1005 | Status: SK | Rev: J |
| Project: LAND SOUTH OF SAFFRON WALDEN SITE | Scale: 1:500 @ A1 | Revision | Drawn | Check | Date | | | | | |

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CLASS: C - COLOURED, A - BLACK & WHITE
STATUS: SK - SKETCH, PR - PRELIMINARY, PL - PLANNING, WD - WORKING DRAWING



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# Appendix 2: Legislation and Planning Policy

## Legislation

A2.1. Specific habitats and species receive legal protection in the UK under various pieces of legislation, including:

- The Environment Act 2021;
- The Wildlife and Countryside Act (WCA) 1981 (as amended);
- The Conservation of Habitats and Species Regulations 2017 (as amended);
- The Countryside and Rights of Way (CRoW) Act 2000;
- The Natural Environment and Rural Communities Act (NERC) 2006;
- The Hedgerows Regulations 1997; and
- The Protection of Badgers Act 1992.

A2.2. The European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992, often referred to as the 'Habitats Directive', provides for the protection of key habitats and species considered of European importance. Annexes II and IV of the Directive list all species considered of community interest. The legal framework to protect the species covered by the Habitats Directive has been enacted under UK law through The Conservation of Habitats and Species Regulations 2017 (as amended).

A2.3. In Britain, the WCA 1981 (as amended) is the primary legislation protecting habitats and species. SSSIs, representing the best examples of our natural heritage, are notified under the WCA 1981 (as amended) by reason of their flora, fauna, geology or other features. All breeding birds, their nests, eggs and young are protected under the Act, which makes it illegal to knowingly destroy or disturb the nest site during nesting season. Schedules 1, 5 and 8 afford protection to individual birds, other animals and plants.

A2.4. The CRoW Act 2000 strengthens the species enforcement provisions of the WCA 1981 (as amended) and makes it an offence to 'recklessly' disturb a protected animal whilst it is using a place of rest or shelter or breeding/nest site.

### Environment Act 2021: Upcoming Town and Country Planning Act

A2.5. The Environment Act gained Royal Assent in November 2022. Whilst the premise of Biodiversity Net Gain (BNG) has been around prior to this, the Assent of the Act sets the Framework for future legislation to be changed. This will be in the form of the Town and Country Planning Act (TaCPA), specifically Schedule 14 of the TaCPA, which will make Biodiversity Net Gain a condition of planning (not a planning condition). The target 'gain' is currently set at 10% but the Secretary of State has the ability to change this.

A2.6. The timescales for changes to the wording of the TaCPA are that it will be legally mandated and enforceable from January 2024.

## National Planning Policy

### National Planning Policy Framework (NPPF), September 2023

A2.7. The National Planning Policy Framework (NPPF) was updated in September 2023 and sets out the Government's planning policies for England and how these should be applied. It replaces the first National Planning Policy Framework published in March 2012.

A2.8. Paragraph 11 states that:

> *"Plans and decisions should apply a presumption in favour of sustainable development."*

A2.9. Section 11 of the NPPF, paragraph 120, sub-section b states that planning policies and decisions should:

> *b) "recognise that some undeveloped land can perform many functions, such as for wildlife, recreation, flood risk mitigation, cooling/shading, carbon storage or food production"*

A2.10. Section 15 of the NPPF (paragraphs 174 to 188) considers the conservation and enhancement of the natural environment.

A2.11. Paragraph 174 states that planning and decisions should contribute to and enhance the natural and local environment by:

> *a) "protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
> *b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*
> *c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate; and*
> *d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"*

A2.12. Paragraph 175 states that plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

A2.13. Paragraph 179 states that in order to protect and enhance biodiversity and geodiversity, plans should:

> *a) "Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity[12]; wildlife corridors and stepping stones that connect*

[12] Circular 06/2005 provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

*them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation*[13]*; and*

*b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."*

A2.14. When determining planning applications, Paragraph 180 states that local planning authorities should apply the following principles:

*a) "if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*

*b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*

*c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons*[14] *and a suitable compensation strategy exists; and*

*d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate."*

A2.15. As stated in paragraph 181 the following should be given the same protection as habitats sites[15]:

*a) "potential Special Protection Areas and possible Special Areas of Conservation;*

*b) listed or proposed Ramsar sites*[16]*; and*

*c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites."*

A2.16. Paragraph 182 states that the presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

[13] Where areas that are part of the Nature Recovery Network are identified in plans, it may be appropriate to specify the types of development that may be suitable within them.

[14] For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat.

[15] The policies referred to are those in this Framework (rather than those in development plans) relating to: habitats sites (and those sites listed in paragraph 181) and/or designated as Sites of Special Scientific Interest; land designated as Green Belt, Local Green Space, an Area of Outstanding Natural Beauty, a National Park (or within the Broads Authority) or defined as Heritage Coast; irreplaceable habitats; designated heritage assets (and other heritage assets of archaeological interest referred to in footnote 68); and areas at risk of flooding or coastal change.

[16] Potential Special Protection Areas, possible Special Areas of Conservation and proposed Ramsar sites are sites on which Government has initiated public consultation on the scientific case for designation as a Special Protection Area, candidate Special Area of Conservation or Ramsar site.

## Local Planning Policy

**Uttlesford District Council Local Plan**

*Policy GEN7 – Nature Conservation*

A2.17. Development that would have a harmful effect on wildlife or geological features will not be permitted unless the need for the development outweighs the importance of the feature to nature conservation. Where the site includes protected species or habitats suitable for protected species, a nature conservation survey will be required. Measures to mitigate and/or compensate for the potential impacts of development, secured by planning obligation or condition, will be required. The enhancement of biodiversity through the creation of appropriate new habitats will be sought.

*Policy ENV7 – The Protection of the Natural Environment – Designated Sites*

A2.18. Development proposals that adversely affect areas of nationally important nature conservation concern, such as Sites of Special Scientific Interest and National Nature Reserves, will not be permitted unless the need for the development outweighs the particular importance of the nature conservation value of site or reserve.

A2.19. Development proposals likely to affect local areas of nature conservation significance, such as County Wildlife sites, ancient woodlands, wildlife habitats, sites of ecological interest and Regionally Important Geological/ Geomorphological Sites, will not be permitted unless the need for the development outweighs the local significance of the site to the biodiversity of the District. Where development is permitted the authority will consider the use of conditions or planning obligations to ensure the protection and enhancement of the site's conservation interest.

*Policy ENV8 – Other Landscape Elements of Importance for Nature Conservation*

A2.20. Development that may adversely affect these landscape elements: hedgerows, linear tree belts, larger semi-natural or ancient woodlands, semi-natural grasslands, green lanes and special verges, orchards, plantations, ponds, reservoirs, river corridors, linear wetland features, networks or patterns of other locally important habitats, will only be permitted if the following criteria apply:

a) The need for the development outweighs the need to retain the elements for their importance to wild fauna and flora;

b) Mitigation measures are provided that would compensate for the harm and reinstate the nature conservation value of the locality. Appropriate management of these elements will be encouraged through the use of conditions and planning obligations.

# Appendix 3: Methodology and Results

## Data Search

A3.1. A desk-based study was conducted whereby records of designated sites and records of protected and priority species were purchased and interrogated for the site and the surrounding landscape. The aim of the data search is to collate existing ecological records for the site and adjacent areas. Obtaining existing records is an important part of the assessment process as it provides information on issues that may not be apparent during a single survey, which by its nature provides only a 'snapshot' of the ecology of a given site.

A3.2. The following resources were consulted/contacted:

- Multi-Agency Geographic Information for the countryside (MAGIC) website[17];
- Essex Field Club [18];
- Uttlesford District council website[19];
- Joint Nature Conservation Committee (JNCC) website[20];
- Natural England (NE) designated sites website[21];
- Ordnance Survey mapping; and
- Google Maps, including aerial photography.

A3.3. The following areas of search around the boundary of the site boundary were applied:

- 2 km for protected and priority species, national statutory designated and non-statutory sites; and
- 10 km for European statutory sites.

## 'Extended' Phase I Habitat Survey and UKHabs

A3.4. An 'extended' Phase 1 survey was carried out on the 18th September 2023 by Emma Reid, a suitably experienced ecologist and full member of CIEEM. The methods used during the walkover survey broadly followed methods used in an 'extended' Phase I habitat survey[22] and entailed recording the main plant species and classifying and mapping habitat types with reference to the Habitat Definitions provided by the UK Habitat Classification Working Group[23].

A3.5. Additionally, the habitats identified were evaluated for their potential to support legally protected and notable fauna species. Where access allowed, adjacent habitats were also considered in

[17] https://magic.defra.gov.uk/
[18] https://www.essexfieldclub.org.uk/portal.php
[19] https://www.uttlesford.gov.uk/
[20] http://jncc.defra.gov.uk/ProtectedSites/
[21] https://designatedsites.naturalengland.org.uk/
[22] Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey - a technique for environmental audit. JNCC, Peterborough.
[23] Butcher, B., Carey, P., Edmons, R., Norton, L. and Treweek, J. (2020). UK Habitat Classification – Habitat Definitions V1.1

order to assess the site within the wider landscape and to provide information with which to assess possible impacts within the context of the site boundary.

A3.6. All habitats were assessed utilising the relevant condition criteria for the relevant habitat type under Metric 4.0 which included confirming 'pass' / 'fail' criteria taken from the UK Habitat/Phase 1 methodology where necessary.

## Preliminary Bat Roost Assessment (PBRA)

A3.7. A PBRA was undertaken on trees and buildings of relevance to this assessment. The assessment was undertaken simultaneously with the Phase I survey by Emma Reid. All surveys were daytime inspections and the conditions for all surveys was considered optimal. All trees were inspected from the ground using binoculars and high-powered torch for accessible features. In relation to trees, such features may include woodpecker holes, frost cracks, deadwood, knot holes and limb wounds. Surveys were carried out in line with best practice guidance at the time of undertaking.

A3.8. The potential of each tree at the site and immediately adjacent to the site to support roosting bats have been categorised against the criteria described in **Table A3.1**.

**Table A3.1. Roost Assessment Criteria[24]**

| Suitability | Description of Roosting Habitats |
|---|---|
| Negligible | Negligible habitat features on site likely to be used by roosting bats. |
| Low | A structure or tree with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). |
| Moderate | A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status. |
| High | A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for long periods of time due to their size, shelter, protection conditions and surrounding habitat. |

A3.9. Six trees were identified as having a low potential to support roosting bats owing to the presence of ivy cover, the locations of these trees are shown on Bat Survey Plan **14764/P13a**.

## Biodiversity Net Gain

A3.10. The Biodiversity Metric 4.0 metric operates by calculating the number of biodiversity units associated with a particular habitat type (both pre-and post-development) – the 'unit' value associated with each habitat type is calculated based on the following parameters:

- Size (in hectares)/Length (in km);

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

- Distinctiveness (i.e. how rare/valuable a given habitat is);
- Condition (i.e. how well the recorded habitat fits [or will fit] the standardised description of that habitat); and
- Strategic significance (i.e. if the existing or proposed habitat is within an area formally adopted in the local plan for green infrastructure or biodiversity improvements).

A3.11. When considering the creation of new habitats in the post-development site, other factors are also considered when calculating the 'unit' value of a given habitat and these are:

- Time to reach the target condition of each habitat; and
- Difficulty category for the creation of a given habitat.

A3.12. A calculation has been undertaken using the baseline habitats identified during habitat condition assessment survey, which was carried out on the 18th September 2023, alongside the 'extended' Phase 1 survey above. All surveys were carried out by Emma Reid, a suitably experienced ecologist and full member of CIEEM.

A3.13. The UK Habitat Classification was used to identify habitat types. Note that the calculation is completed separately for non-linear and linear habitats. Habitat areas entered into the Defra 4.0 metric in hectares were rounded to two decimal places.

## Evaluation

A3.14. The evaluation of habitats and species is defined in accordance with published guidance[25]. The scale of importance of each ecological feature is assigned within a defined geographical context, namely international and European, national, regional, county, and local. Below these are features considered to be of negligible importance.

A3.15. Consideration will also be given to legally protected or controlled species which are 'important features' in the context of this assessment, for which mitigation measures are required to ensure legal compliance, regardless of their geographic scale of importance. Thus, it is possible for a feature of negligible ecological importance to be legally protected and hence require mitigation.

A3.16. Evaluation is based on various characteristics that can be used to identify ecological features likely to be important in terms of biodiversity. These include site designations (such as Sites of Species Scientific Interest (SSSIs), or for undesignated features, the size, conservation status (locally, nationally or internationally), and the quality of the ecological feature. In terms of the latter, quality can refer to habitats (for instance if they are particularly diverse, or a good example of a specific habitat type), other features (such as wildlife corridors or mosaics of habitats) or species populations or assemblages.

[25] CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.

## Impact Assessment

A3.17. The assessment of impacts identifies impacts and their effects as a result of the proposed development on important ecological features. This includes consideration of impacts at all relevant stages of the development, including construction and operation/occupation. The assessment includes reference to legislation and policy, and supplementary planning guidance where relevant.

## Application of Mitigation Hierarchy

A3.18. Application of the mitigation hierarchy is fundamental to the ecological impact assessment process. This requires consideration of the following measures, in order of priority, for all potential impacts, to determine the most appropriate mitigation, compensation and enhancement strategy for the project. This is taken into account within **Section 3** of this report and set out below:

- Avoidance – measures to avoid harm to ecological features (set out in 'Design Evolution', Section 3);
- Mitigation – measures to avoid or minimise potential impacts as part of the design or guaranteed by planning controls;
- Compensation – measures required to offset significant residual negative effects following avoidance and mitigation; and
- Enhancement – measures over and above requirements for avoidance, mitigation and compensation to provide biodiversity net gain.

# Appendix 4: Bat Legislation Methodology Results

## Legislation and Conservation Status

A4.1. All UK bat species are listed on Appendix II of the Bern Convention and on Annexes II and IV of the EU Natural Habitats Directive. In England and Wales bats are protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 and under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). It is an offence, with certain exceptions, to:

- Intentionally or deliberately capture, kill, or injure a bat;
- Intentionally or recklessly damage, destroy, and disturb bats in a place used for shelter or protection, or obstruct access to such areas;
- Damage or destroy a bat breeding site or resting place;
- Possess a bat, or any part of it, unless acquired lawfully; and
- Sell, barter, exchange, transport, or offer for sale a bat or parts of them.

A4.2. Actions that are prohibited can be made lawful by a licence issued by the appropriate Statutory Nature Conservation Organisation.

A4.3. Several species of bats barbastelle *Barbastella barbastellus*, Bechstein's *Myotis bechsteinii,* brown long-eared *Plecotus auritus,* greater horseshoe *Rhinolophus ferrumequinum,* lesser horseshoe *Rhinolophus hipposideros,* noctule *Nyctalus noctula* and soprano pipistrelle *Pipistrellus pygmaeus* are listed as Priority Species under the 'UK Post-2010 Biodiversity Framework which provides a statutory list of priority species in England, Scotland, Wales and Northern Ireland, as required under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (England), Section 7 of the Environment (Wales) Act 2016, Section 2(4) of the Nature Conservation (Scotland) Act 2004, and Section 3(1) of the Wildlife and Natural Environment Act (Northern Ireland) 2011. Decision-makers such as Local Planning Authorities must have regard for Priority species in all their activities, including when making decisions on planning applications.

## Survey Methodologies

A4.4. The surveys followed standard methodologies set out in published guidance[26] [27] [28] [29] and comprised

- Tree Preliminary Roost Assessment (PRA) – ground level inspection of trees to assess potential of trees on site to support roosting bats;
- Bat activity transect – to assess the species assemblage present at the site and to identify significant commuting routes and foraging locations; and

[26] Mitchell-Jones, A.J. (2004) *Bat Mitigation Guidelines*. English Nature, Peterborough.
[27] Mitchell-Jones, A.J, & McLeish, A.P. (eds). (2004) *3rd Edition Bat Workers' Manual.*, JNCC, Peterborough, ISBN 1 86107 558 8
[28] Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn).* The Bat Conservation Trust, London.
[29] Bat Tree Habitat Key (2018) *Bat Roosts in Trees : A Guide to Identification and Assessment for Tree-Care and Ecology Professionals*. Pelagic Publishing ISBN 9781784271619

- Automated static detector deployment – to supplement the activity transect surveys by leaving static bat detectors to record for five consecutive nights per transect survey.

## Bat Activity Transect Surveys

A4.5. Bat transect surveys were completed at the site seasonally based on habitats of importance to record the bat species present and to determine the importance of any habitat features to foraging and / or commuting bats in line with survey guidance.

A4.6. The survey visits commenced at sunset, with a transect route walked slowly, at a steady pace. The surveys continued for two hours after sunset covering the period of peak activity for bats.

A4.7. Bat detectors were used to record calls for later analysis. Analysts of the sound files had all completed the COBAA assessment course.

A4.8. Weather conditions for surveys are recorded as per the BCT guidance including the air temperature, wind speed and precipitation at sunset. **Table A4.1** below includes sunset and sunrise times for each survey.

**Table A4.1 Activity Surveys - Weather Conditions**

| Activity Date | Sunset/Sunrise Time | Weather conditions | | |
|---|---|---|---|---|
| | | Air temperature at sunset (° C) | Precipitation | Wind (Beaufort scale) |
| 30/05/2022 | 21:06 | 14 | Light Rain/Dry | 0 |
| 05/08/2022 | 20:44 | 19 | Dry | 3 |
| 26/09/2022 | 18:47 | 12 | Dry | 4 |

## Bat Static Monitoring

A4.9. Static monitoring surveys of the site were completed seasonally. These surveys were designed to record bat species over an extended period and to determine whether any habitat features are of importance to bats.

A4.10. During each static survey, one detector was deployed along the footpath separating the two fields which comprise the site (see **14764/P15a)**. The detector was left in situ for a minimum of five nights in total as per guidance[30].

A4.11. The detectors were programmed to record from 30 minutes before sunset to 30 minutes after sunrise. Echolocation calls were later analysed utilising BatExplorer software. Analysts of the sound files had all completed BatAbility's (COBAA) assessment course.

A4.12. Weather conditions for surveys are recorded, including the air temperature, wind speed and precipitation at sunset. **Table A4.2** includes sunset and sunrise times for each survey.

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

**Table A4.2 Static Survey V1 - Weather Conditions**

| Dusk Date | Sunset Time | Sunrise Time | Weather conditions | | |
|---|---|---|---|---|---|
| | | | Air temperature at sunset (˚ C) | Precipitation (mm) | Wind (km/h) |
| 23rd May 2022 | 19:58 | 03:54 | 12 | 0.1 | 18 |
| 24th May 2022 | 20:00 | 03:53 | 11 | 0 | 13 |
| 25th May 2022 | 20:01 | 03:52 | 14 | 0 | 13 |
| 26th May 2022 | 20:02 | 03:51 | 15 | 0.1 | 21 |
| 27th May 2022 | 20:03 | 03:50 | 12 | 0 | 13 |
| 4th June 2022 | 20:12 | 03:43 | 12 | 0 | 22 |
| 5th June 2022 | 20:13 | 03:42 | 11 | 0 | 10 |
| 6th June 2022 | 20:14 | 03:42 | 11 | 0 | 7 |
| 7th June 2022 | 20:15 | 03:41 | 14 | 0 | 12 |
| 8th June 2022 | 20:16 | 03:41 | 14 | 0 | 16 |

# Results

## Bat Activity Results

A4.13. A total of 101 bat passes were recorded during the transect survey visits and all calls were identified to a species level or genus level. **Table A4.3** below shows the number of calls from each species recorded on each visit.

**Table A4.3 Transect survey results**

| Transect | Date | Species | | | Total |
|---|---|---|---|---|---|
| | | Ppi | Ppy | Barb | |
| 1 | 30th May 2022 | 28 | | | **28** |
| 2 | 5th August 2022 | 62 | 2 | | **64** |
| 3 | 26th September 2023 | 7 | | 2 | **9** |

## Bat Static Results

A4.14. A summary table for each month of static deployments is shown below in **Table A4.5** below.

**Table A4.2 Static Survey results**

| Start Date | End Date | Species | | | | Total |
|---|---|---|---|---|---|---|
| | | Ppi | Ppy | Nyct | Barb | |
| 23rd May 2023 | 27th May 2023 | 769 | 329 | 27 | 9 | **1134** |
| 4th July 2023 | 8th July 2023 | 1005 | 419 | 2 | 1 | **1427** |

# Appendix 5: Birds Legislation Methodology Results

## Legislation and Conservation Status

A5.1. All birds are protected under the provisions of the Wildlife and Countryside Act (WCA) 1981 (as amended). Some receive additional protection under Schedule 1 of the Act.

A5.2. Several bird species are listed as a Priority Species in the UK Post-2010 Biodiversity Framework which provides a statutory list of priority species in England, Scotland, Wales and Northern Ireland, as required under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (England), Section 7 of the Environment (Wales) Act 2016, Section 2(4) of the Nature Conservation (Scotland) Act 2004, and Section 3(1) of the Wildlife and Natural Environment Act (Northern Ireland) 2011. Decision-makers such as Local Planning Authorities must have regard to Priority species in all their activities, including when making decisions on planning applications.

A5.3. The Birds of Conservation Concern (BoCC)[31] compiled by Royal Society for the Protection of Birds (RSPB) / British Trust for Ornithology (BTO), commonly referred to as the UK Red List for birds, provides detail on the conservation status of all regular breeding and wintering bird species in the United Kingdom (U.K), Channel Islands and the Isle of Man. Bird species have been assigned to one of three groups (Red, Amber or Green) based on their conservation status, with each group defined as follows:

- RED List species are those that are globally threatened according to the International Union for Conservation of Nature (IUCN) criteria; those whose population or range has declined rapidly (≥ 50%) in recent years; and those that have declined historically and not shown a substantial recent recovery;
- AMBER List species are those with an unfavourable conservation status in Europe, those whose population or range has declined moderately (25%-49%) in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations; and
- GREEN List species are the remaining species and being on this list indicates that they are of low conservation priority, although population sizes should be monitored.

## Breeding Bird Survey

A5.4. Three breeding bird surveys were undertaken between May and July 2022.

A5.5. Surveys were undertaken by Paul Moon, an experienced ornithologist, and comprised a transect survey across the site**.**

[31] Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. (2021) The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds* **114**: 723-747

A5.6. Survey visits were undertaken by a suitably qualified ecologists experienced in undertaking bird surveys. The method used was based on a territory mapping methodology in accordance with published guidance [32] [33].

A5.7. The survey visits were conducted during the period between one hour after sunrise and approximately 09:00, as this is considered to be the optimal time to record bird breeding activity. The identity and activity of all birds, either seen or heard inside the site or within 50m of its boundary, were recorded on maps of a suitable scale.

A5.8. Although the same survey route was used during all visits, the starting point and survey direction were alternated during each survey so that all areas were covered at varied times after sunrise to ensure even coverage during the peak period of bird activity.

A5.9. Bird species were noted using the standard British Trust for Ornithology (BTO) codes. Behaviour considered likely to indicate breeding included: singing, display flights, mating and courtship displays, nesting, carrying of nesting material and birds showing fidelity to a particular patch of ground or vegetation. An aggregation of two or more sightings of a species was taken to be an indication that breeding was likely. Also, if specific behaviours (such as the gathering of nest material, copulations, adults carrying food or recently fledged young) were observed, this was also taken to indicate breeding.

A5.10. 'Probable' breeding status was attributed to those species that were regularly recorded within the site in proximity to suitable nesting habitat but with insufficient data to confirm breeding. 'Possible' breeding status was attributed to those species that were recorded within the site but with a general lack of suitable nesting habitat present within the site.

A5.11. Over-flying bird species were noted but where no suitable nesting habitat for these species was noted within the site, territory mapping was not undertaken.

A5.12. The results of each visit were then transcribed onto a summary map in order to identify species showing fidelity to areas of habitat over several site visits.

A5.13. The conservation status of the birds observed was ascertained through consultation of national, regional and local bird reports.

A5.14. Dates, times and weather conditions are presented below in **Table A5.1.**

**Table A5.1 Date, Time and Weather Conditions During the 4 Survey Visits**

| Visit | Date | Time Start | Time End | Weather Start | Weather End |
|---|---|---|---|---|---|
| 1 | 29/05/2022 | 04:45 | 08:15 | 6°c, clear, dry | 11°c, sunny, dry |
| 2 | 09/06/2022 | 04:45 | 08:20 | 12°c, clear, dry | 15°c, sunny, dry |
| 3 | 05/07/2022 | 05:10 | 08:30 | 12°c, light cloud, dry | 15°c, cloudy, dry |

[32] Bibby, C.J., Burgess, N.D., Hill, D.A. and Mustoe, S.H. (2000) *Bird census techniques*. Academic Press, London.
[33] Gilbert, G., Gibbons, D.W., & Evans, J. (1998) *Bird Monitoring Methods: A Manual of Techniques for UK Key Species*. The Royal Society for the protection of Birds, Sandy, Bedfordshire, England.

## Results

### Breeding Bird Surveys

A5.15. Based on the survey results obtained, the following bird species have been recorded as probable breeders within the site, as described in **Table A5.2**. The table also provides information on the conservation status of each of these species.

**Table A5.2 Probable Breeding Bird Species on the site**

| Species | BTO Cons. Status | SoPI | Breeding Status | Number of Territories |
|---|---|---|---|---|
| Dunnock | Amber | No | Probable | 5 |
| Wood pigeon | Amber | No | Probable | 3 |
| Wren | Amber | No | Probable | 3 |
| Whitethroat | Amber | No | Probable | 3 |
| Song Thrush | Amber | No | Probable | 2 |
| Greenfinch | Red | No | Probable | 2 |
| Linnet | Red | No | Probable | 1 |
| Blackbird | n/a | No | Probable | 1 |

# Appendix 6: Reptile Legislation Methodology Results

## Legislation and Conservation Status

A6.1. All of Britain's native reptiles are protected under the Wildlife and Countryside Act 1981 (as amended) (WCA). The four common species of reptile: adder *Vipera berus*, grass snake *Natrix natrix helvetica*, slow worm *Anguis fragilis* and common lizard *Zootoca vivipara* are listed on Schedule 5, Section 9, Parts 1 and 5, of the WCA and as such, it is an offence to:

- Intentionally kill, injure or take reptiles; and
- Sell, offer or advertise for sale any live or dead specimen or anything derived from reptiles.

A6.2. Smooth snake *Coronella austriaca* and sand lizard *Lacerta agilis* are afforded additional protection under the Conservation of Habitats and Species Regulations 2018 (as amended) but the site is not within the known geographical distribution of these species and no habitat exists within the site with the potential to support them.

A6.3. All native reptile species are Priority Species in the 'UK Post-2010 Biodiversity Framework which provides a statutory list of priority species in England, Scotland, Wales and Northern Ireland, as required under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (England), Section 7 of the Environment (Wales) Act 2016, Section 2(4) of the Nature Conservation (Scotland) Act 2004, and Section 3(1) of the Wildlife and Natural Environment Act (Northern Ireland) 2011. Decision-makers such as Local Planning Authorities must have regard to Priority species in all their activities, including when making decisions on planning applications.

## Reptiles Methodology

A6.4. Reptile surveys were undertaken to identify the presence or likely absence of common reptile species within areas of suitable habitat within the surveyed site, and if found to be present, determine their population size class. The survey was conducted in line with Froglife Advice Sheet 10[34].

A6.5. 45 refugia comprising 0.5x1m pieces of bitumen roofing felt, were deployed on 20th May 2022 within suitable areas of habitat, identified during the 'extended' Phase I habitat survey. Approximate locations of the refugia are presented in **14764/P14a Reptile Survey Plan**.

A6.6. Refugia were allowed a bedding in period before seven subsequent checks were undertaken during suitable weather conditions (air temperature between 9-18°C (or up to 21°C if grass snakes are expected), dry, intermittent sun and light winds). Visual searches on top of the refugia and at natural basking spots were carried out, as well as searches of natural refugia, where present, were undertaken during each reptile survey visit.

[34] [redacted]

## Results

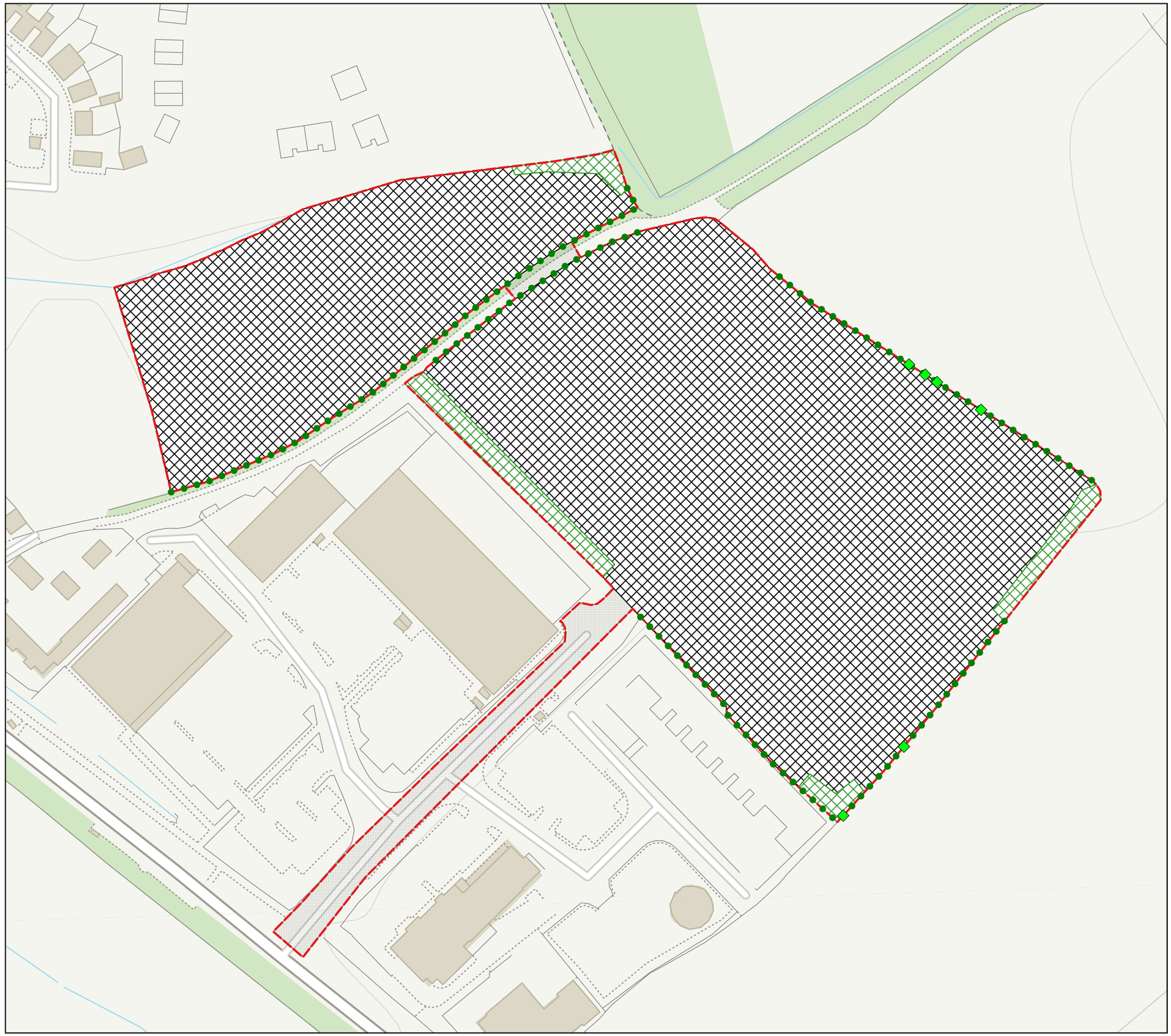
A6.7. Two juvenile common lizards *Zootoca vivipara* were recorded during the surveys, the locations they were observed in are shown in **14764/P14a Reptile Survey Plan**.

## Plans

**Plan 1: 14764/P13a Habitat Features Plan**

**Plan 2: 14764/P14a Bat Survey Plan**

**Plan 4: 14764/P15a Reptile Survey Plan**



## Legend

- Red Line Boundary

### Baseline Habitats

- Scrub
- Ruderal/Ephemeral
- Area not Surveyed
- Lines of Trees
- Trees with Low Bat Roosting Potential

N

0 50 100 m

| | |
|---|---|
| Project | Land North of Thaxted Road |
| Drawing Title | Habitat Features and Preliminary Bat Roost Assessment Plan |
| Scale | As Shown (Approximate) |
| Drawing No. | 14764/P13a |
| Date | December 2023 |
| Checked | WW/GS |

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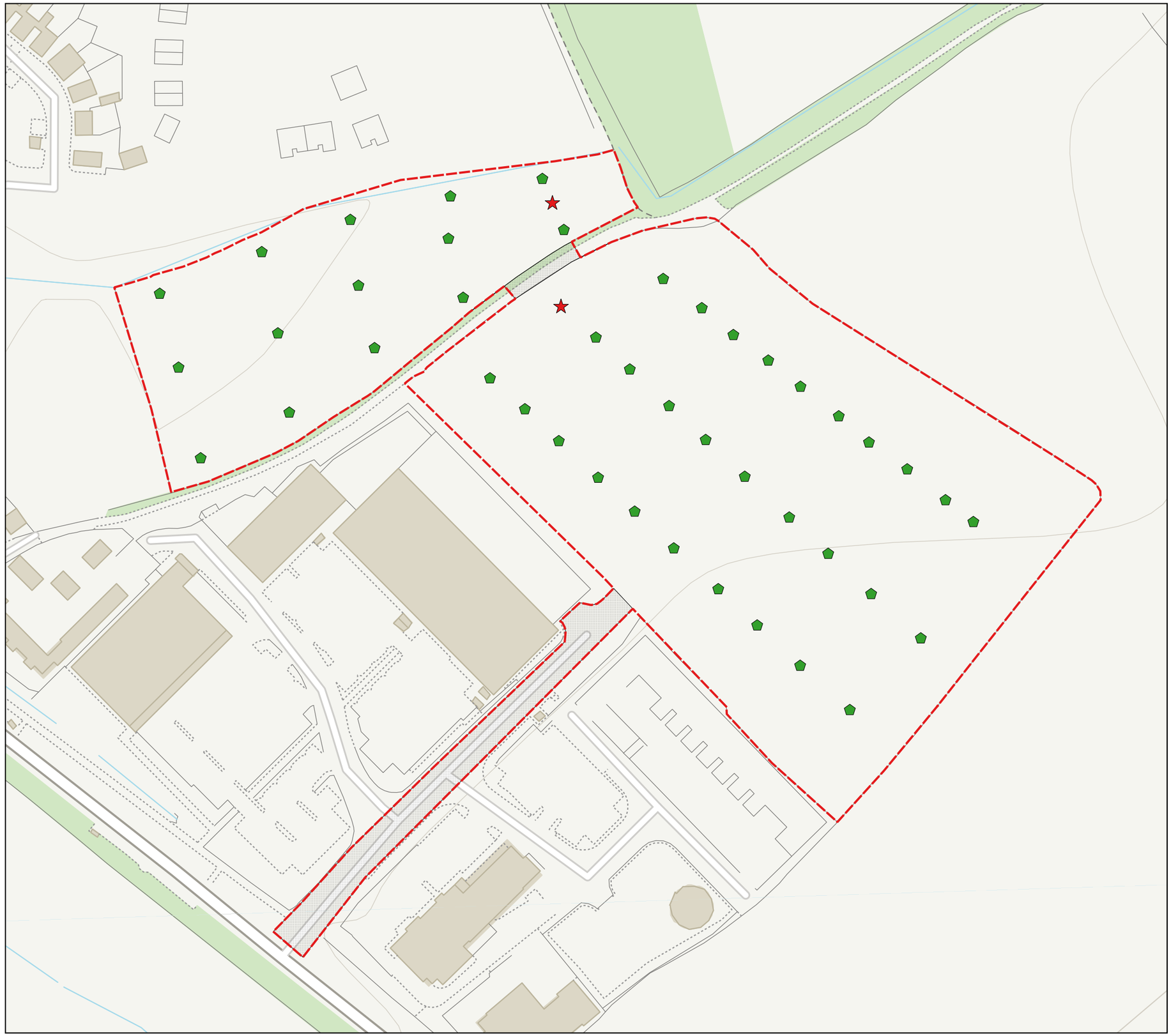

## Legend

- Red Line Boundary
- Area not Surveyed

### Reptile Refugia

- Individual Common Lizard Found
- No Reptiles Found

N

0 50 100 m

| | |
|---|---|
| Project | Land North of Thaxted Road |
| Drawing Title | Reptile Survey Plan |
| Scale | As Shown (Approximate) |
| Drawing No. | 14764/P14a |
| Date | December 2023 |
| Checked | WW/GS |

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## Legend

- Red Line Boundary
- Area not Surveyed

### Bat Transect Data

- Area of Largest Bat Activity on Walked Transect

N

0 50 100 m

| | |
|---|---|
| Project | Land North of Thaxted Road |
| Drawing Title | Bat Survey Plan |
| Scale | As Shown (Approximate) |
| Drawing No. | 14764/P15a |
| Date | December 2023 |
| Checked | WW/GS |

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