

Homefield, Lindsell, Dunmow, Essex, CM6 3QJ

Preliminary Ecological Appraisal

September 2022



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1 Introduction

- 1.1 Plumb Associates Ltd was commissioned by Mr J Hunter to undertake a preliminary ecological appraisal of Homefield, Lindsell near Great Dunmow to inform an outline application to construct six new dwellings.
- 1.2 The purpose of this report is to ensure that the proposed scheme does not adversely affect any habitats, plants or animals that are legally protected. The report considers:-
- The potential of the site and its environs to support important habitats, protected species or other notable species of wildlife, and make recommendations for further survey work as necessary;
 - The conservation value of habitats and species both on the site and its environs;
 - The likely ecological effects of the development;
 - Mitigation measures to be taken to avoid or minimise these effects and identify opportunities to provide enhancement measures to achieve biodiversity net gain.

Methodology

- 1.3 The assessment was carried out in accordance with the Chartered Institute of Ecology and Environmental Management's Guidelines for Preliminary Ecological Appraisal (CIEEM 2017).
- 1.4 A desk study was undertaken which included reviewing Magic (the results are summarised in Appendix 1).
- 1.5 A site survey was carried out on 30th August 2022 by Steve Plumb MCIEEM CEnv CMLI, an ecologist with over 30 years professional experience. The purpose of the survey was to establish the ecological value of the existing habitats on and adjacent to the site and to assess the site's suitability to support protected species and Species of Principal Conservation Interest. A survey of the existing dwelling and outbuildings was also undertaken to assess their suitability to support roosting bats.

Limitations

- 1.6 The survey was carried out in good weather conditions and there was access to the site. It was possible to access the interiors of all the outbuildings. Access to the interior of the chalet bungalow was not possible; however the exterior was fully accessible.

2 Summary of relevant wildlife legislation

Wildlife and Countryside Act 1981 (as amended)

2.1 The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000 and the Natural Environment and Rural Communities Act 2006, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive). Under this legislation it is an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 of the Act or its dependent young while it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 of the Act; intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 of the Act; intentionally or reckless disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection;
- Pick or uproot any wild plant listed under Schedule 8 of the Act.
- Carry out any works or management that might damage or destroy the 'interest' for which a Site of Scientific Interest has been designated.

2.2 The Wildlife & Countryside Act (1981) states that it is an offence to 'plant or otherwise cause to grow in the wild' any plant listed in Schedule 9 art II of the Act. This list over 30 plants including Japanese Knotweed (*Fallopia japonica*), Giant Hogweed (*Heracleum mantegazzianum*) and Parrots Feather (*Myriophyllum aquaticum*).

The Conservation of Habitats and Species Regulations 2017

2.3 These regulations transpose Council Directive 92/43/EEC into English law, making it an offence to deliberate capture, kill or disturb wild animals listed under Schedule 2 of the Regulations. It is an offence to damage or destroy a breeding site or resting place of such an animal, even if the animal is not present at the time. For activities that would be likely to result in a breach of species protection under the regulations to legally take place, a European Protected Species (EPS) licence must be obtained from Natural England.

2.4 These Regulations were consolidated into the Conservation of habitats and Species (Amendment) (EU exit) Regulations 2019) and the Wildlife and Countryside Act 1981(as amended).

Natural Communities & Rural Communities (NERC) Act 2006

- 2.5 The NERC Act places a duty on public bodies to have due regard for biodiversity and nature conservation during the course of their operations.
- 2.6 Section 41 requires the Secretary of State to publish lists of habitats and species that are of principal importance for the conservation of biodiversity in England. Species and habitats on this list are material consideration in planning.

The Protection of Badgers Act 1992

- 2.7 The Protection of Badgers Act 1992 makes it is an offence to kill, injure, take, possess or cruelly mistreat a badger or to interfere with, or obstruct access to a sett.
- 2.8 Provisions are included within the Act to allow for the lawful licensing of certain activities that would otherwise constitute an offence under the Act.



Image 1 – The survey area in context

3 Site description and existing habitat features

- 3.1 The site is situated in a rural location to the north of Lindsell. It forms part of a group of large houses set within large plots. Beyond the domestic gardens and horse paddocks that area is dominated by arable farmland. (Image 1 shows the site in context). The site is approximately 0.83ha in total.

- 3.2 The site contains a chalet bungalow set within a domestic garden comprising mainly lawn with apple trees and a walnut tree. The garden is enclosed by hedges comprising hawthorn, field maple and dog rose with oak and ash standards. Overhead power lines run north-south approximately 5m from the western boundary. While vegetation is kept low under the wires, scrub has been allowed to extend into the garden area east of the overhead powerlines. This includes a mix of hawthorn, bullace, with a large laurel.
- 3.3 There is a narrow strip of long grass on the northern boundary of the garden area. This is dominated by False Oat-grass, Cock's-foot and Timothy with scattered Black Knapweed, Common Nettle, Cinquefoil Creeping Thistle Meadow Buttercup, Agrimony and Red Bartsia.
- 3.4 East of the main access track is a stable block set within an area of mown grass. There is a small paddock containing a menage to the north. The grassland within this area is heavily grazed and poached with limited floral diversity. There is a good quality hedge, dominated by hawthorn, growing around the north side of the paddock.
- 3.4 The hedge on the eastern side of the stables comprises mainly elm and ash. This is currently in poor condition due to Dutch Elm Disease and Ash Dieback.
- 3.5 There are 4 outbuildings within the site, including two Nissan huts, a large shed and the stable block. The interiors of all of these were surveyed and are described in detail in 4.6 – 4.11.

4.0 Protected species assessment

The site and adjacent areas were assessed for their suitability to support protected species.

Badgers

- 4.1 Badgers (*Meles meles*) are afforded protection under The Protection of Badgers Act 1992, under which it is an offence to kill, injure, take, possess or cruelly mistreat a badger or to interfere with, or obstruct access to a sett.
- 4.2 There was no evidence of setts recorded within the site.
- 4.3 There were no field signs such as trails, latrines pits or foraging within the site recorded during the survey.
- 4.4 The site is within an area dominated by arable farmland and residential properties, some with horse paddocks. There are areas of scrubby woodland locally but these are small and isolated. It is considered that badgers are not present on the site or

within the local area and so no further surveys are required. It is however recommended that a precautionary approach is adopted for badgers as it could benefit other mammals that might traverse the site during construction. A method statement set out in Section 6.

Bats

- 4.5 All bat species are afforded legal protection on a European and national basis, under the Conservation of Species and Habitat Regulations 2010 and the Wildlife and Countryside Act 1981(as amended). These Regulations were consolidated into the Conservation of habitats and Species (Amendment) (EU exit) Regulations 2019). In addition to it being an offence to kill or injure an animal it is a criminal offence to disturb or obstruct a bat roost.
- 4.6 The site contains a chalet bungalow (Photo 1), two Nissan-hut-style outbuildings (Photos 2-5) , a shed (Photo 6) and a stable block (Photos 7-8). All were surveyed to determine their potential for supporting roosting bats. There were chicken runs and greenhouses which were not surveyed as they offered no potential for roosting bats.
- 4.7 The chalet bungalow has brick and render walls with a modern clay tile roof. It is currently occupied and is in good repair. Being a chalet bungalow there is no roof void in the main part of the building as the upper floor extends to the roof. The tiles are all in good condition and there were no gaps in the soffits or eaves. A careful inspection of the exterior of the whole building found no features suitable for roosting bats and no signs of bats. It is considered that the building has negligible potential for supporting bat roosts.
- 4.8 One of the Nissan huts is used as a store. It has low block walls and an asbestos roof. There are three windows and a door at the southern end and clear plastic panels and a broken door with missing window glass at the northern end. The asbestos roof is unlined. No evidence of bat use was visible. The windows and poor-quality structure allow in significant daylight. Bats seek out dark areas or crevices in which to roost. There are gaps in the wall making the building draughty. It is considered that the building has negligible potential to support roosting bats.
- 4.9 The other Nissan hut is in poor structural repair with open sections in both the front and rear walls allowing in daylight and the weather. It is considered that the building has negligible value for roosting bats.
- 4.10 There is a wooden shed close to the main site entrance. It has no roof void and there are gaps in the roof and missing window glass, resulting in there being high light levels and a draughty structure. There were extensive cobwebs throughout the roof area. There were no signs of bats using the structure. It is considered that the shed has negligible potential for roosting bats.

- 4.11 The stable block is of timber construction with a corrugated asbestos roof and divided into 4 stables, each with their own door. The block is in active use. The roof sits on the walls creating large gaps; however the roof is unlined. No signs of use by bats were recorded and overall the building is considered unsuitable and so is assessed as having negligible potential for roosting bats.
- 4.12 The trees around the garden are mainly young to medium age and therefore they lacked features that would make them suitable for roosting bats.
- 4.13 The trees and hedges, particularly on the western and southern boundaries could be suitable for commuting bats. The boundary trees and hedges will be retained and enhanced with additional planting and appropriate management. The site would have some potential for foraging; however the limited floral diversity and current managing of the lawn and paddocks means that this value would be low. There would be an opportunity to enhance the floral diversity by using appropriate wildflower mixes and tree planting.
- 4.14 It will be important that any exterior lighting required as part of the scheme is designed in accordance with 'Bats and artificial lighting in the UK' Guidance Note 08/18 prepared by the Bat Conservation Trust and Institution of Lighting Professionals to minimise any light spill over habitat features used for commuting and foraging.
- 4.15 It is considered that the site has low value for roosting and foraging bats at present. There is potential to increase this value through an appropriate landscape scheme.

Reptiles

- 4.16 Protection is afforded to the Slow-worm (*Anguis fragilis*), Common Lizard (*Zootoca vivipara*) Adder (*Vipera berus*) and Grass Snake (*Natrix natrix*) under Section 9 (1) and 9 (5) of the Wildlife & Countryside Act 1981 (as amended).
- 4.17 Most of the site comprises managed lawn and heavily grazed horse paddocks and are unsuitable for reptiles. The narrow strip of tall grass on part of the northern boundary has some potential; however it lacks structural diversity including basking areas. It is isolated from other suitable habitat and therefore its potential for supporting reptiles is considered to be very low; however a precautionary approach should be followed if the tall grass requires clearing. This is set out in Section 6.
- 4.18 There is potential to provide more suitable habitat for reptiles and amphibians through creating wildflower areas and providing small hibernacula close to the boundary hedges.

Birds

- 4.19 All wild species of breeding birds and their nests are protected under Part 1 of the Wildlife and Countryside Act 1981, as amended by later legislation including the Countryside and Rights of Way (CRoW) Act 2000. The species listed on Schedule 1 of the Wildlife and Countryside Act are given additional protection.
- 4.20 There was no evidence of birds using the house or outbuildings for nesting.
- 4.21 The trees and shrubs within the grounds offer potential for nesting birds. Some of the trees within the site would require removal to enable development and due to their condition, however the better species including the boundary hedge and trees can be retained. New planting can be provided as part of the landscape scheme.
- 4.22 It is considered that the loss of nesting features would not be significant; however tree clearance must not be undertaken when birds are nesting. A method statement is included in Section 6.

Great Crested Newts

- 4.23 Great Crested Newts (*Triturus cristatus*) are afforded legal protection on a European and national basis, under the Conservation of Species and Habitat Regulations 2010 and the Wildlife and Countryside Act 1981(as amended). These Regulations were consolidated into the Conservation of habitats and Species (Amendment) (EU exit) Regulations 2019). In addition to it being an offence to kill or injure an animal it is a criminal offence to disturb or obstruct their breeding or resting places.

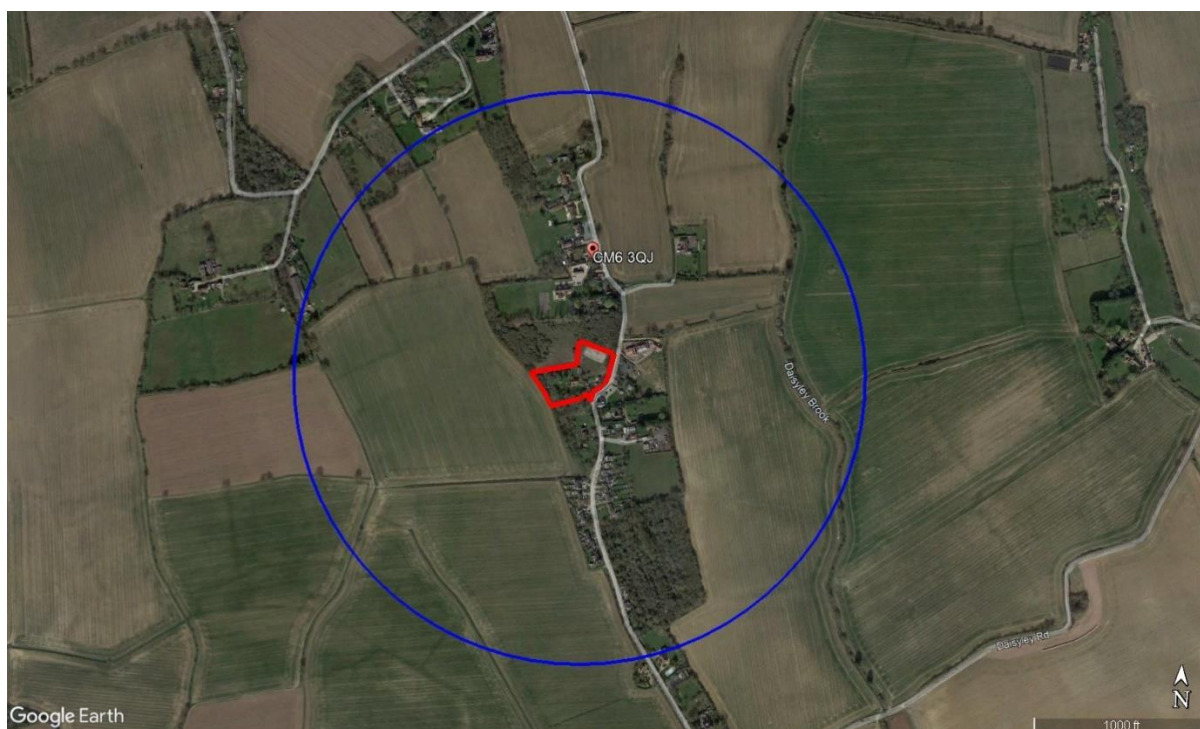


Image 2 – area within 500m of the site

- 4.24 Reviewing the Natural England District Level Licensing open source mapping confirms that the site is within the Great Crested Newt Amber Risk Zone which contain main populations of GCN and comprise important connecting habitat that aids natural dispersal. This Amber Risk Zone is relatively narrow and follows the boundaries of the residential properties within Lindsell. The surrounding arable farmland is within the Green Risk Zone. Having reviewed Google Earth (see Image 2), OS and the Defra Magic mapping the only the pond recorded within 500m of the site was adjacent to the site access. The Magic Map search did not include any GCN Class Survey Licence returns within the 500m radius.
- 4.25 There are no ponds within the site but there is one immediately west of the site entrance (Photo 10). At the time of the survey it was almost completely dry. It was heavily shaded on all sides by tall trees. Using the GCN Habitat Suitability Index the pond and an HIS Score of 0.34 which meant that it had a Poor suitability for GCN.

Other protected species

- 4.26 The site does not contain habitat suitable to support Otter, Water Vole, Dormouse or White-clawed Crayfish. No legally protected plant species were recorded.

Invasive species

- 4.27 No invasive species of special concern were recorded on site. There is a small stand of bamboo was recorded close to the southern end of the western boundary with the arable field. While not specifically an invasive species it can spread and dominate areas if left unmanaged. This should be removed completely prior to construction to prevent it being a nuisance within the site.

5 Discussion of Results

- 5.1 The desktop survey comprised an analysis using Defra's Magic Maps (see appendix 1) and open-source GIS mapping for Great Crested Newts.
- 5.2 No statutory designated sites were recorded within 2km of the site. No Local Wildlife Sites were recorded within 1km of the site. There are small stands of lowland deciduous woodland, a s41 Habitat of Principal Importance, within 1km of the site; however the proposal would have no adverse effects on these.
- 5.3 The site is largely enclosed by hedges. These were of varying quality. The hedge on the southern boundary contained several large trees and was generally in good condition. The hedge north of the menage was in good condition. The western hedge adjacent to the arable field contained some small gaps and was generally thin due to lack of maintenance. It could be enhanced by infilling the gaps and improving its management. The hedge bounding the road was in poor condition due to disease affecting the elm and ash. This could be replanted as part of the scheme.

- 5.4 Within the garden the trees and scrub are of varying quality and include walnut, hawthorn, bullace and several fruit trees. most of the scrub trees have poor form. Where possible the best trees should be retained with the proposed rear gardens. Where trees are removed it is recommended that suitable fruit trees be incorporated into the landscape scheme as they provide flowers and fruit that will have biodiversity value. They have some potential for supporting nesting birds but are otherwise of low ecological value.
- 5.5 The grassland on the site is of low value, being principally managed as lawn and horse paddocks. The strip of longer grass on the northern hedge has some value as a nectar source; however its small size limits its overall value. New wildflower areas should be provided as part of the landscape scheme.
- 5.6 The existing chalet bungalow and outbuildings do not contain any features that would make them suitable for roosting bats due to their construction and condition. They are all considered to have negligible potential to support roosting bats. The trees within the site are relatively small and do not contain features that would make them suitable for roosting bats. The trees and hedges; however do provide potential for commuting bats, although this is limited by the lack of connections to better habitat features.
- 5.7 The current habitat features and management in and around the site means that the site is considered to offer low potential to support any protected species. Adopting a precautionary approach Section 6 sets out a methodology for clearing and maintaining the site during construction that will prevent any animals accessing the site from being adversely affected.
- 5.8 There is scope to mitigate for the loss of habitat features through an appropriate landscape scheme. Potential biodiversity enhancement measures are set out in Section 7.

6 Mitigation measures

- 6.1 The appraisal confirms that the site has a low potential to support protected species however to avoid any risk to animals using the site during construction and to ensure compliance with the relevant wildlife legislation the following precautionary method statements should be followed.

Nesting birds

- 6.2 Nesting birds are legally protected under the Wildlife and Countryside Act 1981 (as amended). Due to milder spring weather in recent years birds are tending to start nesting earlier than in past. As a result it is recommended that any works to trees or shrubs are carried out before mid-February. The season normally extends to mid-

August although again in mild summers birds might raise another brood so care must be taken to avoid an offence being committed. If an active nest is found all works in the vicinity must cease immediately.

- 6.3 If it is necessary to remove any trees or shrubs within the nesting period a detailed survey of the vegetation must be carried out by a suitably qualified ecologist immediately prior to any works to check for nesting birds.

Badgers and other animals

- 6.4 There is a possibility that badgers could access the from other nearby woodland, although were no evidence of badger activity was recorded during the survey. The following measures however should be fully implemented to reduce the impact on wildlife using the site and also to avoid contravention of current legislation:

- All site personnel will be given a toolbox talk to inform them about the potential presence of badgers and other protected species and the legal protection they are afforded;
- Any deep excavations that are to be left open overnight should include a means of escape for any animals that may fall in, using planks of wood to act as ramps;
- No pipework should remain open with any exposed ends capped off at the end of the working day to prevent any animals entering the pipework;
- Any fresh animal excavations recorded on the site should immediately reported and fully investigated;
- The creation of large stock piles of earth should be avoided as these may prove attractive for badgers to excavate new setts.

- 6.5 In the unlikely event that any active holes are recorded during the construction phase, works within the immediate area will cease and the area made safe with a suitable protective buffer provided. A suitably qualified ecologist should then be contacted so that the hole can be investigated and appropriate controls applied.

Bats

- 6.6 The site has some potential for foraging bats and the southern boundary has potential for use by commuting bats. The southern, western and northern boundaries will not be directly affected by the proposal; however it is essential that any lighting for the scheme is designed in accordance with best practice guidance as described in 4.14.

Reptiles

- 6.7 The area of long grass should be cut during warm weather between March and September when animals are active. The grass should be cut first to 150mm high, and the cut material removed to reduce the cover available. The grass can then be

cut low once it is clear no animals are present starting near the house and working towards the boundary.

7 Enhancements for biodiversity

- 7.1 The majority of the trees and hedges can be retained as part of the proposal; however the eastern boundary hedge should be replaced as it has been badly affected by Dutch Elm Disease and Ash Dieback. A suitable mixed native hedge with standard trees would be a positive benefit. New trees to mitigate for the loss of trees that cannot be retained should include a proportion of fruit trees. Areas of wildflower planting should be provided.
- 7.2 Bird boxes should be installed to mitigate for the removal of some of the trees and shrubs. Integral bat boxes could also be included in some of the new properties.

8 Conclusions

- 8.1 The proposal would not have any effects on statutory or non-statutory designated sites as there are none within a 2km radius of the site.
- 8.2 The site contains an existing dwelling and several outbuildings set within gardens and paddocks. The buildings are unsuitable for roosting bats. The gardens and paddocks are mainly formally managed and have low floral diversity. There are good quality boundary trees and hedges which can be retained. Some scrubby trees have established within the garden and many of these have poor form. Overall it is considered that the site has low ecological with little potential to support protected species due to its lack of connectivity to good quality habitat.
- 8.2 Several precautionary mitigation measures have been proposed to ensure that no protected or important species are adversely affected during construction.
- 8.4 The proposal will provide opportunities to enhance existing habitat features such as the hedges and trees. Bird and bat boxes can be integrated into the new dwellings.

Site Photographs

Photo 1 – Existing chalet bungalow



Photo 2 – Outbuilding used for storage



Photo 3 – rear of outbuilding



Photo 4 – Interior showing high light levels and lack of suitable features



Photo 5 – poor quality outbuilding



Photo 6 - interior of shed



Photo 7 - stable block



Photo 8 – interior of one of the stables



Photo 9 – the menage within the heavily grazed paddock



Photo 10 – pond on western edge of the main access



MAGiC

