

Land at Chelmsford Road, Hartford End, CM3 1JY

Preliminary Ecological Appraisal

September 2023



Contents

1	Introduction	3
2	Summary of relevant wildlife legislation	4
3	Site description and existing habitat features	5
4	Protected species assessment	6
5	Discussion of Results	8
6	Mitigation measures	9
7	Biodiversity enhancement opportunities	10
8	Conclusion	10
	Site photographs	12
Appendix 1	Magic Map	14

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1 Introduction

- 1.1 Plumb Associates Ltd was instructed by Stockplace Investments Ltd to undertake a preliminary ecological appraisal of land off Chelmsford Road, Hartford End to form part of an outline application to construct up to 50 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.
 - 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 Maps (the results are summarised in Appendix 1), the Uttlesford District and Chelmsford City Council planning websites and the Natural England GCN ArcGIS layers.
- 1.6 A site survey was undertaken on 29th August 2023 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.

Limitations

- 1.7 The survey was carried out in good weather conditions and there was access to the whole site. It is considered that there were no significant limitations to the survey.

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 recklessly 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.

The Conservation of Habitats and Species Regulations 2017

2.2 These regulations transpose Council Directive 92/43/EEC into English law, making it an offence to deliberately 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. 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

2.3 The NERC Act places a duty on public bodies to have due regard for biodiversity and nature conservation during the course of their operations.

2.4 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 considerations in planning.

The Protection of Badgers Act 1992

- 2.5 The Protection of Badgers Act 1992 makes it an offence to kill, injure, take, possess or cruelly mistreat a badger or to interfere with, or obstruct access to a sett.



Image 1 – The survey area in context

3 Site description and existing habitat features

- 3.1 The site is within Hartford End, a hamlet to the south of Felsted. There are established residential properties to the north of the site fronting Chelmsford Road. To the south is a recently completed residential development on the site of the former brewery. The River Chelmer lies approximately 100 metres to the south of the site, beyond the new development. Much of the surrounding area is arable farmland although there is a large area of formally managed grassland beyond the western boundary associated with Mill House. Image 1 shows the site (outlined in red) in context.
- 3.2 The site is a single field of approximately 2.42 hectares which is currently in arable production. At the time of the survey the crop had been recently harvested. The only flora therefore was recorded around the headlands and was dominated by common ruderal species able to establish on nutrient-rich soils. These include Common Nettle, Creeping Thistle, Field Bindweed, Cow-parsley, Horseradish and Scentsless Mayweed.
- 3.3 There is a hedge bounding Chelmsford Road which contains Hawthorn, Field Maple, Hazel, Goat Willow, Oak and Elm with Bramble, Great Willowherb, Common Nettle

and Thistle. There are gaps developing where the elm is dying due to Dutch Elm Disease.

- 3.4 There is no hedge on the western boundary and only a single small Field Maple. On part of the northern boundary there are sections of Hornbeam, Snowberry and Lawson Cypress hedges. There is a new hedge comprising mainly Hawthorn, Blackthorn and Dog rose establishing outside the southern boundary which was planted as part of the Ridley Green development.

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 The whole site was surveyed but no setts were recorded.
- 4.3 There were no field signs such as trails, latrines pits or foraging recorded within the site during the survey. The surrounding land uses are considered unsuitable for supporting badger setts.
- 4.4 The scheme would not result in any direct impacts on badger setts and no field signs were recorded across the main site during the survey. The proposals would not result in any construction works that are likely to adversely affect badgers or other mammals that could cross the site causally. No specific method statement is considered necessary.

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 A European Protected Species licence relating to common pipistrelle and dated 2016 was recorded on Magic Maps just south of the site. It appears that this related to the redevelopment of the former brewery site which is immediately adjacent to the River Chelmer.

- 4.7 There are no buildings on site.
- 4.8 The trees and hedges on the site did not contain features suitable for roosting bats.
- 4.9 The boundaries currently have limited value for commuting bats due to the lack of features and limited connectivity with good quality habitat although the licence record shows that bats are present close to the river where there are more suitable trees and buildings. New hedges would be planted as part of the scheme and new grassland provided as part of the new open space which would improve the potential value of the site for commuting and foraging.
- 4.10 It will be essential to ensure that appropriate exterior lighting is used within the scheme to minimise light spill over the boundary trees. (Section 6 below provides more detail).
- 4.11 The proposed landscape scheme provides an opportunity to reinforce the tree line on the eastern boundary and to enhance the value of the site for foraging bats. It is considered therefore that the scheme could have a minor benefit for commuting and foraging bats that could be present in the wider area.

Reptiles

- 4.12 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).
- 4.13 The site is in arable production with arable farmland or managed amenity grassland bounding the site. It is considered that the site is unsuitable for supporting reptiles and no further surveys are required.

Birds

- 4.14 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.
- 4.15 The site is not suitable for ground nesting birds. The hedge fronting Chelmsford Road has potential for supporting nesting birds, however the rest of the trees and hedges are of limited value due to their size and condition.
- 4.16 Works to trees will be limited to creating a new vehicular access off Chelmsford Road. Other trees and hedges will be retained and enhanced. Any works to trees should be undertaken in accordance with good practice guidance set out in Section 6.

- 4.17 The scheme provides opportunities for planting new trees and hedges. There would be opportunities to install bird boxes as part of the proposed development. Details are provided in the landscape strategy.
- 4.18 It is considered that the scheme will provide an overall benefit for nesting birds due to the provision of new planting.

Great Crested Newts

- 4.19 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.
- 4.20 The site is within the Great Crested Newt Green Risk Zone as identified on the Natural England ArcGIS layer for Essex. The Green Risk Zone is defined as containing sparsely distributed GCN and less likely to contain important pathways of connecting habitat.
- 4.21 Using Magic Maps and Google Earth no ponds were identified within 500m of the site.
- 4.22 The site does not contain any ponds or terrestrial habitat features suitable for supporting Great Crested Newts and has no connectivity to suitable breeding ponds. No further surveys are required for this species.

Other protected species

- 4.23 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

- 4.24 No invasive species were recorded on site.

5 Discussion of Results

- 5.1 The desktop survey comprised an analysis on information found on Defra's Magic Maps (see Appendix 1), the Uttlesford District and Chelmsford City Council planning websites and the Natural England GCN risk zones mapping.
- 5.2 There are no statutory designated sites within 2km of the site. While the proposal would not result in any direct effects on national or international sites the site is within the Zone of Influence for the Essex Coast Recreational Disturbance Avoidance and Mitigation Strategy (RAMS) and therefore without mitigation the scheme has potential to result in in-combination effects associated with recreational disturbance. It would be necessary therefore to pay the appropriate RAMS financial contribution to

fund offsite mitigation to avoid the need to undertake a project HRA for the development.

- 5.3 There is one non-statutory designated site within 1km of the site. Littley Park Meadows Local Wildlife Site is approximately 130m to the southeast of the site and comprises flood plain meadow and species-rich grassland associated with the River Chelmer. This site is shown on the plan in Appendix 1. The only of priority habitats nearby are areas of lowland deciduous woodland south of the river. It is considered that the scheme would not result in any direct effects on these habitats.
- 5.4 The site is currently farmland in arable production with only a small section of established native hedgerow growing on the eastern boundary and new hedge on the southern boundary.
- 5.5 The site is not suitable for supporting badgers, bats, reptiles or great crested newts due to the lack of any suitable habitat features. The hedges have some potential for supporting nesting birds. While most of the hedges will be retained and enhanced a short section fronting Chelmsford Road will require removal to allow the creation of a new vehicle access. A method statement for carrying out vegetation removal is provided in Section 6.
- 5.6 Any external lighting should be designed to avoid light spill over the site boundaries to minimise any adverse effects on commuting bats that could follow these features.
- 5.7 The site is assessed as having very low ecological value at present. The BNG calculation shows the proposal can achieve an overall biodiversity net gain.

6 Mitigation measures

Nesting birds

- 6.1 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.
- 6.2 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.

Bats

- 6.3 The boundary hedges have some potential to be used by commuting bats. These will be retained and enhanced and therefore there will be no direct effects on bats. It is important that any exterior lighting is minimised and appropriately 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. The use of sensor or timers can further reduce light disturbance.

7 Biodiversity enhancements

- 7.1 The scheme offers the potential to improve the quality of habitat on site by improving the boundary hedges and providing new tree and shrub planting, Where possible species that are native or have a good biodiversity value should be selected.
- 7.2 A new open space will be created which provides opportunities to deliver wildflower areas. The attenuation basins, while not regularly holding water will be sown with a wet grassland wildflower mix to increase the diversity of the site.
- 7.3 Additional measures such as integral bird and bat boxes can be installed in some of the new houses.
- 7.4 The proposed landscape strategy provides details of what can be delivered on site.
- 7.5 A Biodiversity Net Gain calculation has been completed using Version 4.0 of the Defra metric. The initial calculation showed that it was not possible to achieve a 10% net gain for habitat units. The applicant has been agreed to include a 0.42ha area of land immediately west of the site to enable additional neutral grassland to be created.
- 7.6 The completed BNG calculation shows that the proposal will achieve a 37% net gain of habitat units and 983% of hedgerow units.

8 Conclusions

- 8.1 Plumb Associates Ltd was instructed by Stockplace Investments Ltd to undertake a preliminary ecological appraisal of land off Chelmsford Road, Hartford End to form part of an outline application to construct up to 50 dwellings.
- 8.2 The site currently comprises a single field which is in arable production. The narrow headlands contained a small range of very common ruderal species. There are sections of native hedgerow, mainly on the eastern boundary. The western boundary has a single tree and no hedges. There are sections of developing hedgerow on the other boundaries however these currently have limited ecological value due to their size and condition.

- 8.3 The hedges have some potential for supporting nesting birds and to be used by commuting bats; however the rest of the site does not contain features suitable for supporting protected species. Overall the site and is considered to have a low ecological value.
- 8.4 Mitigation measures have been provided to avoid any adverse effects on nesting birds and commuting bats in Section 6.
- 8.5 The proposed landscape scheme would achieve a biodiversity enhancement by providing new boundary hedges, enhancing existing hedges and creating areas of wildflower grassland within the open space area. An additional area of new grassland is to be created adjacent to the site to ensure that the scheme achieves an overall biodiversity net gain.
- 8.6 The completed BNG calculation shows that the proposal will achieve a 37% net gain of habitat units and 983% of hedgerow units.

Site Photographs

Photo 1 – View northeast across site.



Photo 2 – View south along the western boundary



Photo 3 – Section of hedge fronting Chelmsford Road



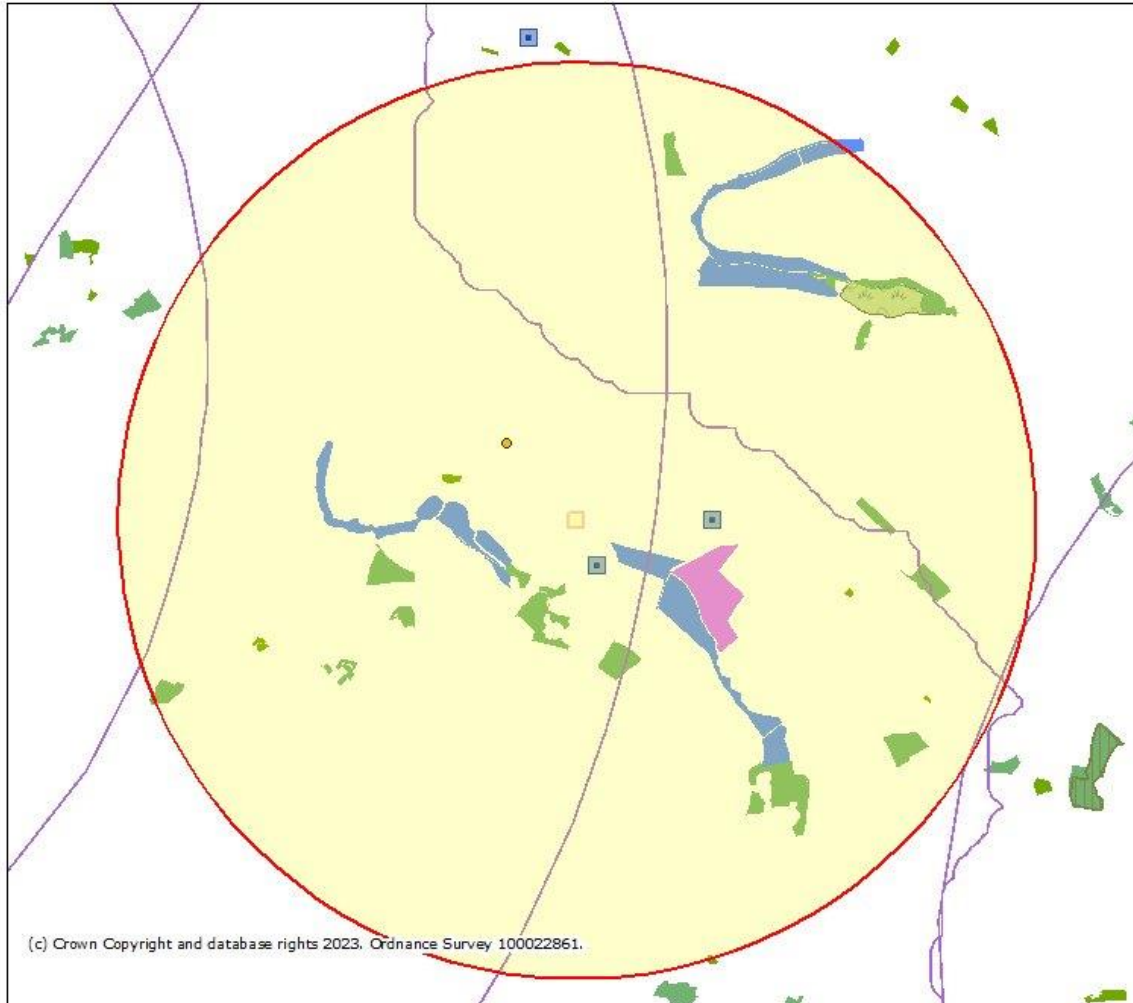
Photo 4 – Southern boundary with Ridley Green



Appendix 1 - Magic Map – Designated sites and priority habitats within 2km buffer

MAGiC

Magic Map



Legend

Local Nature Reserves (England)	Priority Habitat Inventory - Reedbeds (England)
Ramsar Sites (England)	Priority Habitat Lakes
Sites of Special Scientific Interest (England)	Dystrophic
Favourable Condition	Eutrophic
Unfavourable Recovering	Mesotrophic (Marl)
Unfavourable no change	Mesotrophic
Unfavourable Declining	Oligotrophic
Part Destroyed	OS Priority Ponds with Survey Data (polygons)
Destroyed	Clean Water for Wildlife and Priority Pond
Not Assessed	Clean Water for Wildlife
Sites of Special Scientific Interest (England)	Priority Pond
SSSI Impact Risk Zones - to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)	Surveyed Priority Ponds Points (points)
Special Protection Areas (England)	CWW no OS pond within 30m
Priority Habitat Inventory - Coastal and Floodplain Grazing Marsh (England)	CWW within 30m of OS pond
Priority Habitat Inventory - Good quality semi-improved grassland (Non Priority) (England)	CWW within OS pond
Priority Habitat Inventory - Lowland Meadows (England)	PP no OS pond within 30m
	PP within 30m of OS pond
	PP within OS pond

Projection = OSGB36
 xmin = 563000
 ymin = 214900
 xmax = 574400
 ymax = 220500

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