



HYBRID ECOLOGY LTD

joined up thinking

Low Impact EclA including Bat Survey:

White House, Station Road, Thorringon, Essex

On behalf of:

Mr. & Mrs. Wakem

Prepared by:

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Summary

White House (the site) was visited between March and June 2021 to carry out ecological surveys in respect of a proposed development. The plans involve demolition of the existing property and outbuildings, and construction of two residential units.

Designated sites and priority habitats

- The site is 1.4km to the north-east of the Colne Estuary Special Protection Area. For new residential development in this area, consideration is required in terms of the emerging Essex Coast Recreational Disturbance Avoidance and Mitigation Strategy (Essex Coast RAMS). Mitigation will involve a per-unit financial contribution to fund off-site mitigation.
- The proposal will not impact Priority Habitats and no mitigation is required.

Legally protected species

- White House and outbuildings were subject to Preliminary Roost Assessment (PRA) for bats which included internal and external inspections. White House contained several external crevices and a loft void which presented moderate bat roost suitability (BCT, 2016), although no signs of roosting bat (e.g. droppings) were found. The outbuildings including garage, barn and shed all presented sub-optimal conditions for bats and negligible bat roost suitability.
- Bat surveys carried out on the White House in May and June 2021 yielded negative results with no bats seen emerging over two surveys. No further surveys are required. In the unlikely event that bats are encountered during demolition, work must cease until ecological advice has been sought.
- The garden is overgrown and should be maintained through mowing or strimming to discourage reptile colonisation. Potential refugia will be dismantled by hand between March and October inclusive.
- The outbuildings, scrub, trees and hedgerows are likely to attract nesting birds. Nesting birds are legally protected from direct harm, therefore any work that could impact an active nest will take place between September-February inclusive, or following a negative active nest check by a qualified ecologist.

Enhancement opportunities

There is scope to provide tree planting, implement hedgerow management and install habitat boxes. These measures would contribute to Government aims under Paragraph 170(d) of the National Planning Policy Framework 2019 and Local Plan policies which encourage all development to incorporate enhancements, where possible.

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1.0 Introduction

Personnel

- 1.1 This report has been prepared by Gemma Holmes; Consultant Ecologist at Hybrid Ecology Ltd. Gemma is a qualified ecologist with 13 years' experience in professional survey work and is an Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Gemma holds licences to survey for great crested newt and bats in the UK (Licence numbers 2015-19096-CLS-CLS and 2016-27305-CLS-CLS respectively).

Brief

- 1.2 Mr. and Mrs. Wakem instructed Hybrid Ecology to provide ecological surveys and reporting for the White House, Station Road, Thorrington CO7 8HY (grid reference TM0913620853) in relation to a proposed development. A Location Plan (showing the red line boundary) is in Figure 1. The plans involve demolition of existing buildings and construction of two new units. A site plan is included as Appendix 1.

Aims

- 1.3 This Low Impact EclA has been produced to advise the client/developer and relevant members of the project team as to the key ecological constraints and opportunities associated with this project and any necessary mitigation requirements to ensure legal obligations in respect of protected species, designated sites and habitats are met.

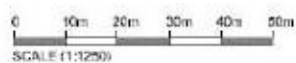
Limitations

- 1.4 Whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment. Wildlife is transient and mobile, and results of a survey can reasonably vary from one day to the next or across the seasons.
- 1.5 The protected species assessment provides a view of the likelihood of protected species occurring on the site based on the known distribution of species in the local area and the suitability of the habitat. However, it should not be taken as providing a full and definitive survey of any protected species/group.
- 1.6 Biological records can be patchy, and some areas/species are under recorded, therefore absence of records for a species or group does not necessarily mean that there is a lack of ecological interest. Equally, the presence of records does not necessarily mean the habitat is still suitable for the species/group in question.
- 1.7 The loft space in the White House was partially inaccessible and therefore could not be fully inspected for bats. Further dusk surveys were undertaken to provide confidence in the findings.
- 1.8 In accordance with CIEEM Guidelines, this report is valid for 18 months, after which point habitats are reasonably expected to have changed to warrant a re-survey.

Figure 1. Location plan showing red and blue line boundaries



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2.0 Planning Policy and Legislation

National Planning Policy Framework (2019): Conserving and Enhancing the Natural Environment

Please note the below policies have been taken directly from the National Planning Policy Framework, which can be found here: [National Planning Policy Framework - GOV.UK \(www.gov.uk\)](https://www.gov.uk/national-planning-policy-framework)

Paragraph 170

2.1 Planning policies and decisions should contribute to and enhance the natural and local environment by:

- 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);
- 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;
- Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- Preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans;

Paragraph 175 (d)

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

Legislation: Protection of Designated Sites, Habitats and Species

Please note this section is a summary of legislation only and should not be taken as a definitive interpretation of any law. UK wildlife legislation can be found here: [Legislation.gov.uk](https://legislation.gov.uk)

Designated sites

RAMSAR

- 2.3 Ramsar sites are designated under the Convention on Wetlands of International Importance especially as Waterfowl Habitat. Wetlands are designated, protected and promoted in order to stem the progressive encroachment on and loss of wetlands, which are broadly defined to include marsh, fen, peatland and water.

Special Areas of Conservation (SAC)

- 2.4 Special Areas of Conservation are sites designated by Member States under the EC Habitats Directive. The aim is to establish a network of important high quality conservation sites that will make a significant contribution to conserving habitats and species considered to be most in need of conservation at an international level.

Special Protection Areas (SPA)

- 2.5 Special Protection Areas are designated under the EC Birds Directive, to conserve the habitat of certain rare or vulnerable birds and regularly occurring migratory birds. Any significant pollution or disturbance to or deterioration of these sites has to be avoided.

National Nature Reserves (NNR)

- 2.6 National Nature Reserves are statutory reserves established for the nation under the Wildlife and Countryside Act, 1981 (as amended). NNRs may be owned by relevant national body (e.g. Natural England in England) or established by agreement; a few are owned and managed by non-statutory bodies. NNRs cover a selection of the most important sites for nature conservation in the UK.

Sites of Special Scientific Interest (SSSI)

- 2.7 Sites of Special Scientific Interest are areas notified under the Wildlife and Countryside Act, 1981 (as amended), as being of 'special interest for nature conservation'. They represent the finest sites for wildlife and natural features in Great Britain supporting many characteristic, rare and endangered species, habitats and natural features. Notification as a SSSI is primarily a legal mechanism organised by Natural England and selected according to specific criteria.

Local Nature Reserves (LNR)

- 2.8 Land owned, leased or managed by Local Authorities and designated under the National Parks and Access to the Countryside Act. A site of some nature conservation value managed for educational objectives - no need for SSSI status. Some reserves are managed by a non-statutory body. Local authorities have the power to pass bylaws controlling (e.g.) access, special protection measures.

Local Wildlife Site / Wildlife Sites

- 2.9 Local Wildlife Sites (LoWS) are non-statutory sites designated at a county level as being of conservation importance and often recognised in Local authority development plans. The aim of this identification is to protect such sites from land management changes, which may lessen their nature conservation interest, and to encourage sensitive management to maintain and enhance their importance. Although LoWSs have no statutory protection they need to be considered in the planning process and impacts should be avoided wherever possible.

Regionally Important Geological / Geomorphological Site (RIGS)

- 2.10 Regionally Important Geological/Geomorphological Sites are non-statutory earth science sites. The RIGS networks are locally based voluntary groups drawing on both professional and interest groups identifying sites using a methodical and rational approach. RIGS are analogous to non-statutory biological sites - they are not a second tier but sites of regional or local importance in their own right.

Legally protected species

- 2.11 The Conservation of Habitats and Species Regulations (2019, EU Exit) affords protection to various species/species groups including bats (all species), great crested newt, otter and dormouse.
- 2.12 The Wildlife and Countryside Act 1981 (as amended) is the main source of legal protection for wildlife in England and was strengthened by the Countryside and Rights of Way Act 2000. Species protection is provided under Schedules 1, 5, 6 and 8 to species including bat, great crested newt, water vole, otter and nesting birds. Badgers are protected separately under the Protection of Badgers Act (1992).

Species and Habitats of Principal Importance in England (or Priority habitats/species)

- 2.13 The Natural Environment and Rural Communities Act (2006) places a duty on Local Planning Authorities to conserve and enhance certain habitats and species. The species that have been designated to be of "principal importance for the purpose of conserving biodiversity" are those that are most threatened, in greatest decline, or where the UK holds a significant proportion of the world's total population. They mainly derive from lists originally drawn up for the UK Biodiversity Action Plan (UK BAP). Similarly, the list of habitats of principal importance in England also derive from the UK Biodiversity Action Plan.

3.0 Methodology: Desktop Study

Mapping exercise

- 3.1 Aerial imagery (Google Earth Pro, 2021) was used to examine the landscape context of the site in relation to significant ecological assets such as woodland, established hedgerows, grassland and any naturalised features that would allow wildlife use and dispersal.
- 3.2 Multi-Agency Geographical Information for the Countryside (MAGIC) was used to:
- Determine the proximity to international, national and locally designated sites.
 - Determine whether the site falls within the Zone of Influence of Essex coastal designated sites, specifically to establish whether any financial contribution is needed in compliance with the Essex Coast Recreational Avoidance and Mitigation Strategy (Essex Coast RAMS).
 - Identify any areas of land mapped by Natural England as Priority Habitat within 250 metres of the site.

Biological Records Search

- 3.3 Records for protected and notable species within 2km were ordered from the Essex Field Club (EFC) to inform this assessment.

4.0 Methodology: Habitats and Species

Phase 1 Habitat Survey

- 4.1 An Extended Phase 1 Habitat Survey was carried out on 10th March 2021 by ecologist Gemma Holmes (BSc Hons ACIEEM). The weather conditions were conducive to surveying, with good visibility, no wind and no rain. The survey was undertaken in accordance with the Handbook for Phase 1 Habitat Survey (JNCC 2010).

Protected/priority species scoping

- 4.2 The survey also included an assessment of the site's potential to support any legally protected species; or Species and Habitats of Principal Importance, as identified by Section 41 of the Natural Environment and Rural Communities Act (2006).
- 4.3 Where best practice guidelines exist, these have been used to assess the likelihood that individual species will be present, for example Bat Surveys: Good Practice Guidelines (BCT 2016) and Habitat Suitability Index for Great Crested Newt (Oldham et al, 2000).
- 4.4 White House and outbuildings were subject to Preliminary Roost Assessment (PRA) which involved internal and external inspections looking for potential access points (e.g. gaps under roof tiles) and any field signs (e.g. droppings) that may indicate a roost. The buildings were assigned a "potential roost suitability" in accordance with Table 4.1 of the BCT (2016) Guidelines, shown below in Figure 2.

Figure 2. Guidelines for assessing potential suitability of development sites for bats (BCT, 2016)

Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.		
Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure 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 ¹ 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 ²). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential. ²	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
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 ¹ and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
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 longer periods of time due to their size, shelter, protection, conditions ¹ and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

Bat surveys

- 4.5 The PRA identified several crevices around the White House and a loft void which was partly inaccessible due to a small crawl space. White House was assigned moderate bat roost suitability and required two separate surveys at dusk or dawn to establish any roosts.
- 4.6 The surveys were carried out on 20th May and 3rd June 2021. A team of three surveyors were stationed to the north, east and west - see Figure 3. All surveyors were equipped with Echo Meter Touch 2 Pro bat detectors, and Clu-lite torches with red filters. Notes and recordings were made for any bats emerging or re-entering or for any foraging or commuting occurring on or adjacent to the site. Behaviour was recorded in 2 minute intervals, within which the number of “passes” were recorded. The dusk surveys were carried out up to 30 minutes prior to dusk, until up to 2 hours after.

Figure 3. Surveyor positions during dusk surveys



Evaluation criteria

- 4.7 Ecological features (designated sites, habitats and species) were evaluated where possible in relation to a geographical context (i.e. International, National, Regional, Metropolitan, County, District, Borough, Local and Site), in accordance with CIEEM Ecological Impact Assessment Guidelines (2016). Criteria include designations, quality of habitat in relation to the site context, ability to support notable assemblages of species, contribution to habitat connectivity, dispersal opportunities or providing intrinsic ecological value.

5.0 Results: Desktop Study

Landscape context

- 5.1 The site is in a rural position in Thorrington in Essex, approximately 8km from the Essex coast. The immediate environment includes a large area of grassland/scrub which is within the blue line to the immediate east. There is a large area of scrub to the south-west beyond Station Road. The closest large woodland is 220 metres to the north-west, beyond an arable field. The wider landscape includes a mosaic of different habitats which are generally well-connected.

Designated sites and Priority Habitats

- 5.2 The site is not the subject of a conservation designation – see Appendix 2. The closest designation is the Colne Estuary SPA/Ramsar/SSSI which is 1.4km to the south-west. The Colne Estuary is designated for its important populations of breeding/over-wintering birds and habitats including mudflats, saltmarsh, grazing marsh, reedbeds, sand and shingle spits, and unused gravel pits. The Colne Estuary also supports outstanding assemblages of invertebrates and plants, several of which are nationally scarce.
- 5.3 New development in the area will reasonably contribute to recreational pressures on the Colne Estuary both alone and in-combination with other developments in the area. As the scale of the site is limited, there is no space for recreation or dog-walking facilities. Therefore, a financial contribution is the most effective means of securing mitigation. The contribution will fund mitigation measures and will be secured via Section 106 or Unilateral Undertaking with Tendring Council.
- 5.4 The closest Priority Habitat is ancient woodland approximately 220 metres to the north-west beyond Station Road and arable land. There is no reason this habitat would be affected.

Sites evaluation: A financial contribution is required in compliance with the Essex Coast RAMS to mitigate for recreational pressures on the Colne Estuary. No mitigation is required in respect of Priority Habitats.

6.0 Results: Phase 1 Habitat Survey

Photographs from the site visit are provided in Appendix 3. For full details on legally protected species, please refer to Section 7. A plan showing target notes is provided in Figure 4. Latin names appear in the text once.

Buildings/hard standing

- 6.1 The site includes the White House, situated to the west of the plot, a double garage, barn and timber shed.
- 6.2 White House has brick walls and a pitched slate tiled roof aligned north-east to south-west and a small section projecting to the east. There is a single storey lean-to to the east with a slate roof – several tiles are missing/slipped. There are timber soffits and timber window/door frames. The house is generally well-sealed apart from slate tiles on the main roof and on the lean-to.
- 6.3 The barn is to the east of the house and comprises brick walls and a pitched roof covered with panelling. Several areas of roof covering have collapsed to the east exposing the interior to the elements. Dense ivy covers the northern aspect.
- 6.4 The double garage is to the south of the barn and is timber clad with a pitched pan-tiled roof. The garage is permanently open to the west and cold/draughty inside.
- 6.5 The small shed is to the west of the barn and is a simple timber design with a felt covered roof and is in deteriorating condition, surrounded by dense bramble scrub.

Amenity grassland

- 6.6 The site includes a garden which is becoming overgrown. Observable species include false oat grass *Arrhenathrum elatius*, Yorkshire fog *Dactylis glomerata*, groundsel *Senecio vulgaris*, bristly oxtongue *Helminthotheca echioides*, white clover *Trifolium repens*, black medick *Medicago lupulina*, foxglove *Digitalis sp.*, feverfew *Tanacetum parthenium*, daisy *Bellis perennis* and salsify *Tragopogon porrifolius*. There is a dense area of fern to the north-west of the house.

Dense scrub

- 6.7 The barn is completely surrounded by dense bramble scrub *Rubus fruticosus* agg. There is a dense area of elder *Sambucas nigra*, holly *Ilex aquifolium* and lilac *Syringa vulgaris* to the west of the barn.

Hedgerows

- 6.8 There is an overgrown hedgerow along the southern boundary which includes blackthorn *Prunus spinosa*, holly and yew *Taxus baccata* with occasional ivy *Hedera sp.*
- 6.9 There is a defunct hedgerow to the west of the house along Station Road which comprises holly and butterfly bush with occasional fern.

Individual trees

- 6.10 There are several individual holly trees scattered throughout the site.

Pond

- 6.11 There is a small, dry ornamental pond to the north of the house. The pond measures approximately 1 metre x 1 metre and is lined. The pond did not contain any water during the course of the surveys (March – June).

Habitats evaluation: Habitats are limited in scale and diversity and are considered to be significant at Site Level only.

Figure 4. Target Notes



Target note (TN)	Description
1	White House, brick walls and pitched slate roof.
2	Shed, small timber building with pitched felt roof.
3	Barn – damaged roof and exposed to elements throughout.
4	Garage – timber clad walls and pan tile roof.
5	Hedgerow, intact, unmanaged, species-poor.
6	Hedgerow, defunct, ornamental.
7	Dense holly, elder and bramble scrub.

7.0 Results: Protected/Priority Species Scoping

This section includes data records obtained from Essex Field Club, a summary of habitat requirements and site assessment, along with recommendations for further survey/mitigation/enhancements as appropriate.

Bats

Data records:

- 7.1 The closest bat records are for common pipistrelle, 0.4km from the site.

Habitat requirements:

- 7.2 Bats roost in buildings, trees and underground sites. Buildings with large, uncluttered loft voids, external crevices (e.g. hanging tiles, fascias, weatherboarding) and missing roof tiles are often suitable, particularly when a building is close to a foraging resource – e.g. woodland or water. Trees with cavities, woodpecker holes, hazard beams and flaking bark are also suitable for roosting.

Assessment:

- 7.3 The White House has several observable crevices around the exterior including under slate tiles on the lean-to to the east and on the main roof. There is a large loft space which was partly accessible. As there was moderate potential for roosting bats both in the loft and underneath tiles, further bat surveys were recommended and undertaken. Please refer to Section 8 for the results.
- 7.4 The barn is brick with a pitched roof. Dense ivy covers the northern aspect and the roof is collapsed leaving the interior open to the elements. The barn has negligible roost potential.
- 7.5 The garage is clad with timber and has a pitched traditional pan tile roof. It is permanently open to the west and is exposed to prevailing weather. The garage has negligible roost potential.
- 7.6 The shed is a simple timber structure with flaking paintwork and general signs of dilapidation. The shed has negligible roost potential.

Outcome: Please refer to the bat survey results in Section 8.

Great crested newt

Data records:

- 7.7 EFC returned records for great crested newt 1.3km from the site.

Habitat requirements:

- 7.8 Great crested newt (GCN) require both terrestrial and aquatic habitats, returning to aquatic habitat to breed March-June, using small to medium ponds with no fish and suitable marginal vegetation including watercress and float grass (Froglife 2001).

- 7.9 Terrestrial habitat includes refuges and foraging and dispersal opportunities as well as hibernation sites such as rubble piles or mammal burrows. It is rare to find GCN over 250 metres from a breeding pond (Cresswell & Whitworth 2004).

Assessment:

- 7.10 The closest pond is 140 metres to the west of the site, beyond Station Road which is a likely barrier to dispersal. There are several ponds and reservoirs 350 metres to the south-west of the site. See Appendix 4 for a plan showing all ponds in the local environment.
- 7.11 The site contains a small ornamental pond (1 metres x 1 metres) which was dry during the surveys. It is limited in size and has sub-optimal aquatic conditions, with no egg-laying substrate. The site provides some terrestrial habitat in the form of rough grassland, although habitats outside the site to the east are far more suitable.
- 7.12 Given the sub-optimal quality of the on-site pond, the distance to the next closest pond and the lack of records locally, it is reasonable to assume likely absence.

Outcome: No impacts predicted. Further survey is not required.

Dormouse

Data records:

- 7.13 Dormouse has been recorded 1.5km from the site.

Habitat requirements:

- 7.14 The hazel dormouse requires wooded habitats, usually semi-natural woodland containing hazel coppice and oak, and a rich understorey cover through which to disperse safely between trees (English Nature 2006).

Assessment:

- 7.15 Dormice are normally found in ancient woodland, species rich hedgerows or continuous areas of bramble scrub. The habitat on site is unsuitable for this species, comprising of an unmanaged garden, small areas of scrub and ornamental plants. The scrub on site is present in small, isolated areas with limited onward connectivity.

Outcome: No impacts predicted. Further survey is not required.

Otter and water vole

Data records:

- 7.16 Both species have been recorded 2km from the site.

Habitat requirements:

- 7.17 Both species require flowing water, deep enough to support foraging behaviour and with connectivity into the wider landscape.

Assessment:

- 7.18 There is no suitable habitat on/adjacent to the site for either species.

Outcome: No impacts predicted. Further survey is not required.

Reptiles

Data records:

- 7.19 Grass snake and common lizard have been recorded 0.5km from the site.

Habitat requirements:

- 7.20 Reptiles (common lizard, slow worm, grass snake and adder) require mosaic habitats with features in which to bask, forage and shelter. These habitats need to have onward connectivity for dispersal. Suitable habitats include grassland with scrub edges or small woodland coppices (Edgar et al. 2010).

Assessment:

- 7.21 The site contains suitable reptile habitat in the form of grassland, scrub and some possible refugia (timber/rubble) although the habitats are limited in scale and diversity. The area to the immediate east of the site is likely to support reptiles as it is a mosaic of undisturbed grassland and scrub. Further surveys would be required should the blue line be put forward for development.
- 7.22 As a precautionary measure it is recommended that the garden is mown to discourage reptile colonisation ahead of development. It is also recommended that where possible all possible refugia (timber/rubble) are dismantled carefully between March and October inclusive (within the active season and prior to hibernation). Any reptiles found should be moved off-site to safety.

Outcome: Precautionary actions required to remove residual risk of harm.

Birds

Habitat requirements:

- 7.23 Nesting birds use a wide range of habitats including buildings, scrub and woodland between March and August inclusive (note some species including pigeon will nest all year round).

Assessment:

- 7.24 Barn owl pellets were found in an old workshop/outbuilding, which is off-site to the immediate east (off-site) (see Figure 5). No barn owl nesting material was found. This off-site building will be retained and barn owl will not be affected.

Figure 5. Location of barn owl pellets



- 7.25 Nesting birds are likely to be present in outbuildings, scrub, hedgerows and trees between March-August inclusive. Therefore demolition, scrub removal, hedgerow management will be carried out between September and February inclusive.

Outcome: Off-site building containing a barn owl feeding perch to be retained. Any work that is likely to impact an active nest will be carried out between September and February when nesting birds are likely to be absent.

Badger

Data records:

- 7.26 Badger records were returned 1.4km from the site.

Habitat requirements:

- 7.27 Badger is a widespread, common mammal and is legally protected due to persecution rather than rarity or conservation significance. Badger requires habitats in which to build their setts and in which to forage. Badgers preferentially choose sloping banks (road verges, railway embankments, woodlands) with easy-dig substrate for sett building where foraging habitat is available.

Assessment:

- 7.28 There are no setts on the site. Faint mammal tracks were seen along the southern boundary leading to the east. These tracks were followed, and no badger setts were found within the blue line boundary. No other badger field signs (latrines, gaps under fences etc.) were found on the site.

Outcome: No impacts predicted. Further survey is not required. As a precautionary measure, during development all trenches should be sealed overnight, or a means of escape provided. All materials should be stored on pallets and unattended piles of spoil should be avoided.

Legally protected plants/invertebrates

Data records:

7.29 No records for notable plants or insects were returned for the site. The site does not contain any significant invertebrate habitat, and there are no habitats on the site that could reasonably support rare or notable plant species.

Outcome: No impacts expected, mitigation not required.

Species evaluation: The White House has moderate potential for roosting bats and required further survey. Please see Section 8. All other species presence is significant at site level only.

8.0 Bat survey

8.1 The weather conditions and survey data are provided in Table 1 and Table 2. No bats were identified emerging from the White House during the surveys. The site attracts low levels of foraging activity which was limited to individual common pipistrelle and soprano pipistrelle. Bats were identified arriving from the west and foraging along the southern boundary.

Table 1. Weather conditions

Date	Sunset	Start Time	End Time	Temperature (°C)		Wind (mph)	Rain	Cloud Cover
				Max	Min			
20 th May	20:49	20:20	22:30	12	11	15mph	None	100%
3 rd June	21:09	20:40	22:45	22	18	4mph	None	40%

Table 2. Bat survey results

Date	Surveyor location	Summary	Emergence from target building?
20 th May	S1	First bat: 21:26 (Soprano pipistrelle) Last bat: 21:43 (Soprano pipistrelle) Summary of activity: Bats seen arriving from the west. Several bats (up to 5) foraging around eastern corner of arable field. Individual bats seen commuting to site's south-western corner and foraging along southern aspect of the White House.	No
	S2	First bat: 21:21 (Common pipistrelle) Last bat: 21:32 (Common pipistrelle) Summary of activity: Only two bats seen flying over western boundary and commuting to east. Brief foraging activity.	No
	S2	First bat: 21:26 (Soprano pipistrelle) Last bat: 21:43 (Soprano pipistrelle) Summary of activity: 6 passes recorded. All bats seen arriving from the west and foraging in the garden.	No
3 rd June	S1	First bat: 21:20 (Common pipistrelle) Last bat: 22:20 (Common and soprano pipistrelle) Summary of activity: Several bats seen foraging in eastern corner of arable field – several bats seen commuting to east to the site.	No
	S2	First bat: 21:50 (Soprano pipistrelle) Last bat: 22:24 (Soprano pipistrelle)	No

Date	Surveyor location	Summary	Emergence from target building?
		Summary of activity: 7 bat passes. Bats seen commuting west to east and foraging to north of White House.	
	SB	First bat: 21:35 ('Soprano pipistrelle') Last bat: 21:58 ('Common pipistrelle') Summary of activity: 8 passes. Bats seen commuting from the west and foraging to the south-east of the White House. Up to 2 bats foraging together.	No

9.0 Ecological Constraints and Opportunities

Site constraints

- 9.1 The site is of limited ecological value and the scope of the planned development is restricted to the existing buildings and surrounding overgrown garden. Bat surveys carried out on the White House yielded negative results and likely absence can be assumed.
- 9.2 Constraints are limited to nesting birds and timing restrictions apply to demolition and vegetation management. As the garden is overgrown and may attract a transient reptile, maintenance (e.g. mowing/strimming) is required to create and maintain unfavourable conditions, and precautionary measures apply to the removal of potential refugia. Precautionary measures are required in relation to badger during construction.

Opportunities

- 9.3 Biodiversity net-gain is now encouraged under Paragraph 175(d) of the National Planning Policy Framework (2019) and recommended in Local Plan policies.
- 9.4 Small fruit trees such as apple, pear, cherry could be included along boundaries or within gardens. The southern boundary hedgerow could also be managed for wildlife. The hedgerow should be encouraged into an 'A' shape, which is thicker at the base and narrower at the top. This provides maximum protection for wildlife, while allowing light to reach the ground flora. Blackthorn could be removed and the hedgerow could be infill planted with other species such as hazel, hawthorn, guelder rose.
- 9.5 There is scope to install habitat boxes around the site to improve opportunities for wildlife, including Priority Species. It is recommended that either two integrated bat roost features (e.g. bat brick, tile or tube) or two externally mounted bat boxes suitable for common pipistrelle and soprano pipistrelle are installed on the new properties. Bat features/boxes should face south and be positioned above 2 metres. External boxes should be woodcrete or woodstone for longevity. Where space allows, a barn owl box could be installed on a boundary tree. See Appendix 5 for recommended habitat boxes/features.

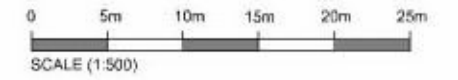
10.0 Conclusions

- 10.1 The survey has established ecological constraints to developing the site and identified opportunities that new development could bring.
- 10.2 The site is of limited ecological value and further surveys are not required in relation to the planned development. Mitigation measures are required in respect of nesting birds. Site maintenance will be actioned in respect of reptiles. Precautionary actions are required during construction in respect of badger.
- 10.3 The development presents an opportunity to implement enhancement measures such as a hedgerow management, tree planting and habitat boxes/features, which will improve the wildlife value of the site post-development. These measures will also ensure compliance with the requirement for measurable “biodiversity net-gain” and provide new habitat opportunities in accordance with Paragraph 175(d) of the NPPF and Local Plan policies.

References

- BCT, 2018. Bats and Artificial Lighting <https://www.bats.org.uk/news/2018/09/new-guidance-on-bats-and-lighting>
- BCT, 2016. Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition). The Bat Conservation Trust, London. http://www.bats.org.uk/pages/batsurveyguide.html?_sm_a_u_=_ijVsrSjrZMR1Psj
- BSI, 2013. BS 42020:2013 Biodiversity. Code of practice for planning and development. British Standards Institute. Available at: <http://shop.bsigroup.com/ProductDetail/?pid=000000000030258704>
- BS 5837, 2012. Trees in Relation to Design, Demolition and Construction – Recommendations.
- BTO, 2015. Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. British Birds. <https://www.britishbirds.co.uk/wp-content/uploads/2014/07/BoCC4.pdf>
- CIEEM, 2015. Guidelines for Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester. Available at: http://www.cieem.net/data/files/Publications/Ecological_Report_Writing_23.12.2015.pdf
- CIEEM, 2016. Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester. Available at: http://www.cieem.net/data/files/Publications/EcIA_Guidelines_Terrestrial_Freshwater_and_Coastal_Jan_2016.pdf
- Conservation of Habitats and Species Regulations, 2017. Available at: http://www.legislation.gov.uk/ukxi/2010/490/pdfs/ukxi_20100490_en.pdf
- Cresswell and Whitworth, 2004. An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt *Triturus cristatus*.
- English Nature, 2001. Bat Mitigation Guidelines.
- English Nature, 2006. The Dormouse Conservation Handbook, 2nd edition. English Nature. Available at: https://ptes.org/wp-content/uploads/2014/06/Dormouse-Conservation-Handbook.pdf?_sm_a_u_=_ijVsrSjrZMR1Psj
- Froglife, 2001. Great Crested Newt Conservation Handbook. Suffolk: Froglife. Available at: http://www.froglife.org/wp-content/uploads/2013/06/GCN-Conservation-Handbook_compressed.pdf
- Froglife, 2001. Advice Sheet 10. Surveying Reptiles. Available at: http://www.froglife.org/wp-content/uploads/2014/01/FAS_10.pdf
- Harris, S., Cresswell, P., Jefferies, D., 1989. Surveying Badgers. London: The Mammal Society. Available at: <http://www.mammal.org.uk/sites/default/files/Surveying%20Badgers%20%201989%20-%20Whole%20Book.pdf>
- HM Government, 2018. National Planning Policy Framework. London: Department for Communities and Local Government. Available at: <http://planningguidance.communities.gov.uk/blog/policy/>
- HM Government, 2015a, as amended. Protected species and sites: how to review planning proposals. Available at: <https://www.gov.uk/guidance/protected-species-and-sites-how-to-review-planning-proposals>
- JNCC, 2004b. Common Standards Monitoring Guidance for Reptiles and Amphibians. JNCC. Available at: http://jncc.defra.gov.uk/pdf/CSM_reptiles_amphibians1.pdf
- JNCC, 2010. Handbook for Phase 1 habitat survey: A technique for environmental audit. JNCC. Available at: http://jncc.defra.gov.uk/PDF/pub10_handbookforphase1habitatsurvey.pdf?_sm_a_u_=_ijVN1yPTstVv1Dt
- JNCC, 2014, as amended. Protected areas designations directory. JNCC. Available at: <http://jncc.defra.gov.uk/page-1527>
- Natural Environment and Rural Communities Act (NERC Act), 2006, as amended. Available at: <http://www.legislation.gov.uk/ukpga/2006/16/contents>
- Protection of Badgers Act, 1992. Available at: http://www.legislation.gov.uk/ukpga/1992/51/pdfs/ukpga_19920051_en.pdf

Appendix 1. Site plan



White House
Station Road
Thorrington
CO7 8HY

BLOCK PLAN

Tim Snow Architects

9A High Street, Brightlingsea
Colchester, Essex CO7 0AE

Scale 1:500 @ A3

Date June 2021

Drawing No. 963/02

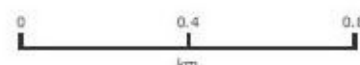
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Appendix 2. MAGIC map



- ```
Projection = OSGB36
xmin = 604200
ymin = 218900
xmax = 613300
ymax = 223400
```

Map produced by MAGIC on 30 June, 2021.  
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### Appendix 3. Photographs



a) The White House, viewed from the west



b) The White House, loft space



c) The White House – gaps under slate tiles on lean-to



d) The barn, roof collapsed to east.



e) Cart-lodge to east (off-site) where barn owl pellets were found



f) Former driveway, timber shed and garage





g) Hedgerow along southern boundary

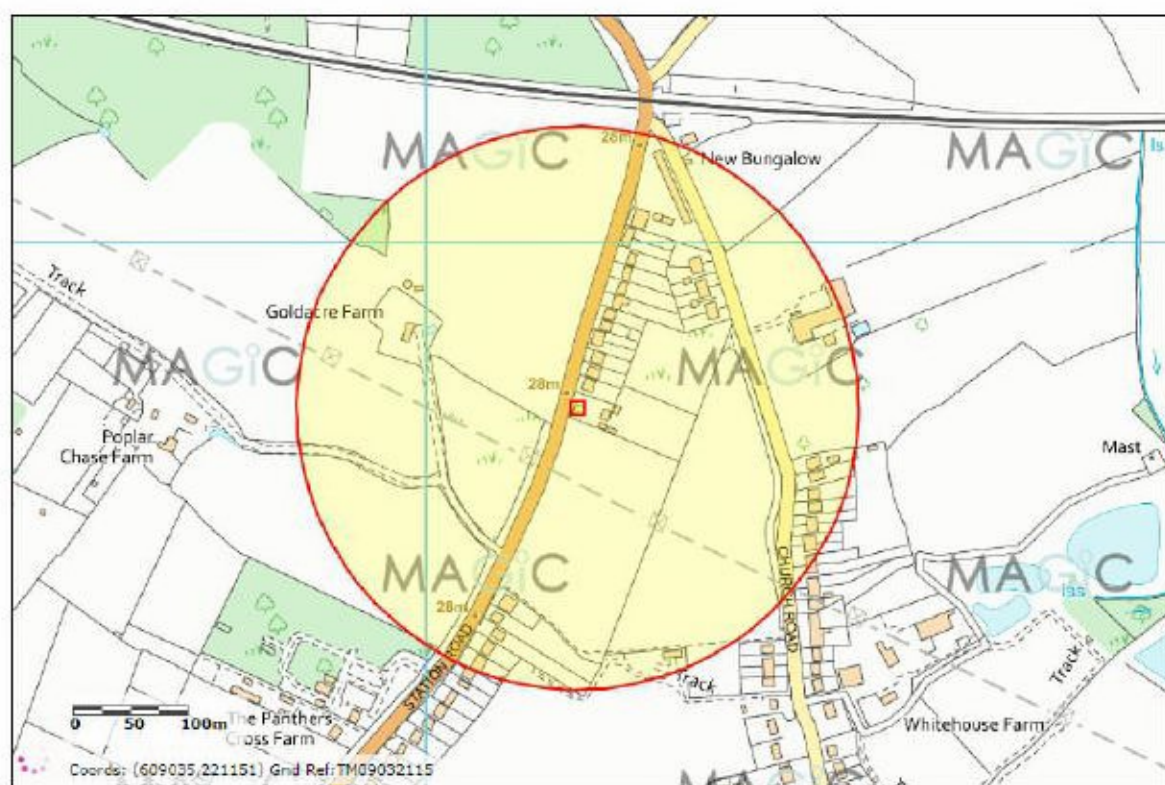


h) Northern boundary fence, scrub/fern



i) Land to the east, retained and unaffected.

#### Appendix 4. Ponds within 250 metres



## Appendix 5. Habitat boxes/features



Habibat 003 Built in Bat Box faced with red brick. Dimensions 44 x 21.5 x 10.2 cm plus facing bricks. Self cleaning.



Schwegler 1FR Bat Tube, to be integrated into building wall, and either bricked in or rendered. Self cleaning. Dimensions: 47.5 x 20 x 12cm.



Beauman's bat box



Barn owl box