

Bramwell Cross (Roger Balmer Design)

Date: 27 November 2023

Dear Bramwell

Ecological assessment of proposed alterations to Oak Tree House, Holton St Mary.

1. Introduction

I am writing to provide a summary of the findings following a survey of the site on 8 November 2023 (Figure 1), where it is proposed to alter an existing lean-to roof and erect an extension onto the northwest corner of the dwelling to create a garden room. These works will require the removal of a large, sweet chestnut tree (*Castanea sativa*) and raised beds/retaining walls.

The purpose of the visit was to survey the site to assess whether the proposed works would impact upon protected and notable species and habitats of relevance to the scheme, to enable an assessment of potential impacts where appropriate. The desk and field assessments completed were made with reference to the CIEEM Guidelines for Preliminary Ecological Appraisal¹.

2. Methodology

2.1 Desk Study

A desk study was undertaken, which included the use of SBIS and open-source historical biological records, MAGIC Map, OS Maps, aerial photography, and Natural England European Protected Species (EPS) mitigation species licences within 2km of the application site.

2.2 Field survey

During the field survey notes were made and the site was assessed for its potential to support protected species, e.g., amphibians and reptiles including GCNs² (*Triturus cristatus*) and slow worms (*Anguis fragilis*), nesting birds³, and mammals such as bats⁴ and hedgehogs (*Erinaceus europaeus*)⁵, by Christian Whiting BSc (Hons) MSc MCIEEM who has over 24 years' experience working as an ecologist. He holds Natural England (NE) survey licences for bats (2015-14745-CLS-CLS – Bat Survey Level 2), barn owl (CL29/0213) and great crested newts (Class A licence 2015-17633-CLS-CLS). He was assisted by Carrie Riddleston BSc (Hons) an ecologist with 2 years survey experience.

3. Results

3.1 Designated sites

Locally, Nationally and Internationally designated sites within 2km, 5km and 13km of the site respectively are listed in Table 1.

Table 1 Local and Nationally designated sites

| Site name | Designation |
|-----------------------------|------------------|
| Higham Meadow | CWS (Babergh 67) |
| Springhill Meadow | CWS (Babergh 41) |
| Cattawade Marshes | SSSI |
| Stour and Orwell Estuaries* | SPA and Ramsar |

*Also designated as SSSI

a) Local sites

Higham Meadow CWS- Babergh 67 (8.57 ha) is a mosaic of wet and dry grasslands and scrub proves habitat adjacent to the stream, which is lined with alders (*Alnus*). The site hosts a wet meadow with a variety of sedges, rushes as well as flora such as southern marsh-orchids (*Dactylorhiza praetermissa*), whilst the drier grassland has slightly more acidic soils.

¹ CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester

² GCNs receive full protection under the WCA 1981 and Habitats Regulations 2017.

³ All wild birds, their nests and eggs are protected under the WCA 1981 (as amended), level of protection varies per species.

⁴ Collins, J. (ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition), Bat Conservation Trust, London

⁵ Hedgehogs are listed under Section 41 of the NERC Act 2006 lists as a 'species which are of principal importance for the conservation of biodiversity in England'

Springhill meadow CWS- Babergh 41 (2.46ha) is a wet agriculturally unimproved meadow which is separated by a stream flowing north to south. The site hosts a diverse range of flora such as wetland plants ragged-robin (*Silene flos-cuculi*) and greater bird's-foot trefoil (*Lotus pedunculatus*). The scarce common spotted orchid (*D. fuchsia*) and early marsh orchid (*D. incarnata*) are also present. The site also provides habitat for overwintering birds such as snipe (*Gallinago gallinago*).

b) National sites (SSSIs and NNRs)

Cattawade Marshes SSSI, AONB, RAMSAR site, SPA (88.2ha) are combined grazing marshes between fresh water and tidal channels of the River Stour. Providing open water and fen habitats for a diverse range of breeding birds such as redshank (*Tringa tetanus*), lapwing (*Vanellus vanellus*) and oystercatcher (*Haematopus*) which breed among the grazed pasture. Whilst ringed plover (*Charadrius hiaticula*) and shelduck (*Tadorna*) nest along the seawall the landscape also provides feeding and breeding grounds for migrating birds. There is also saltmarsh vegetation such as Common Saltmarsh grass (*Puccinellia maritima*), Sea Aster (*Aster tripolium*) and Annual Sea-blite (*Suaeda maritima*) to marsh dominated by Common Reed (*Phragmites australis*) where salinity is lowest.

c) Natura 2000 sites (SAC, SPA and Ramsar)

Stour and Orwell Estuaries RAMSAR sites, SSSI, SPA (3672.57 ha), are within 4.1km south-east of the site. The Stour and Orwell Estuaries are large Internationally and Nationally important networks of estuaries and coastal habitats which qualify for important populations of overwintering birds including hen harrier (*Circus cyaneus*), redshank (*Tringototanus*), and black-tailed godwit (*Limosa limosa islandica*). Overwintering waterfowl can number around 65,000 birds.

Habitats Regulations Assessment

Where a development or project may, alone or in combination, have a 'likely significant effect' upon the features of the Natura 2000 or Ramsar site, the Habitats Regulations 2017 require a Habitats Regulations Assessment (HRA) to be undertaken.

Initial interim advice from Natural England states that increased housing (e.g., new houses or overnight accommodation at holiday lets and campsites) located within 1km by foot and 13km by car of Natura 2000 sites may potentially cause disturbance to the interest features due to walkers (and dogs). The distance criteria are currently under review and may be subject to change. Disturbance to bird species that breed and/or overwinter within the sites is considered to cause the greatest impact.

HRAs are undertaken by a "competent authority" (CA), which in the case of Local Plans and most planning applications is the Local Planning Authority (LPA). Within Suffolk, Ipswich Borough Council in partnership with the neighbouring authorities Babergh District Council and East Suffolk Council have developed a 'Recreational disturbance Avoidance and Mitigation Strategy' (RAMS) to address likely significant effects upon Natura 2000 sites resulting from development within the area. The strategy provides the practical basis and evidence to identify projects to mitigate the impact of new development on the protected sites.

As the proposed development comprises alterations to an existing home with no net increase in homes, then no impacts on the Stour and Orwell Estuaries SPA and Ramsar sites will occur, and no further assessment will be made within this document.

3.2 Species

Table 2 identifies species records for within the 250m Zone of Influence and 2km of the application site. Stag beetles, hedgehog and a brown hare were recorded within the 250m buffer of the site boundary.

Table 2 Protected/notable species within 250m (in bold) and 2km of the application site.

| Common name | Scientific name | Legal/conservation status |
|---------------------------|----------------------------|---------------------------|
| Birds | | |
| Skylark | <i>Alauda arvensis</i> | Red Status; S. 41 |
| Swift | <i>Apus apus</i> | Red Status |
| Linnet | <i>Carduelis cannabina</i> | Red Status; S. 41 |
| Cuckoo | <i>Cuculus canorus</i> | Red Status; S. 41 |
| Lesser Spotted Woodpecker | <i>Dendrocopoc minor</i> | Red Status; S. 41 |

| Common name | Scientific name | Legal/conservation status |
|------------------------|-----------------------------------|---------------------------|
| Yellowhammer | <i>Emberiza citrinella</i> | Red Status; S. 41 |
| Reed Bunting | <i>Emberiza schoeniclus</i> | Amber Status; S.41 |
| Nightingale | <i>Luscinia megarhynchos</i> | Red Status |
| Spotted Flycatcher | <i>Muscicapa striata</i> | Red Status; S. 41 |
| Grey Partridge | <i>Perdix perdix</i> | Red Status; S. 41 |
| Dunnock | <i>Prunella modularis</i> | Amber Status; S.41 |
| Woodcock | <i>Scolopax rusticola</i> | Red Status |
| Turtle dove | <i>Streptopelia turtur</i> | Red Status; S. 41 |
| House sparrow | <i>Passer domesticus</i> | Red Status; S. 41 |
| Starling | <i>Sturnus vulgaris</i> | Red Status; S. 41 |
| Redwing | <i>Turdus iliacus</i> | Red Status |
| Fieldfare | <i>Turdus pilaris</i> | Sch. 1; Red Status |
| Song thrush | <i>Turdus philomelos</i> | Red Status; S. 41 |
| Mistle Thrush | <i>Turdus viscivorus</i> | Red Status |
| Lapwing | <i>Vanellus vanellus</i> | Red Status; S. 41 |
| Mammals – Bats | | |
| Western barbastelle | <i>Barbastella barbastellus</i> | EPS; Sch. 5; S. 41 |
| Serotine | <i>Eptesicus serotinus</i> | EPS; Sch. 5 |
| Natterer's | <i>Myotis nattereri</i> | EPS; Sch. 5 |
| Common pipistrelle | <i>Pipistrellus pipistrellus</i> | EPS; Sch. 5 |
| Soprano pipistrelle | <i>P. pygmaeus</i> | EPS; Sch. 5; S. 41 |
| Brown long-eared | <i>Plecotus auritus</i> | EPS; Sch. 5; S. 41 |
| Mammals – Other | | |
| Hedgehog | <i>Erinaceus europaeus</i> | S. 41 |
| Brown hare | <i>Lepus europaeus</i> | S. 41 |
| Badger | <i>Meles meles</i> | PBA 1992 |
| Polecat | <i>Mustela putorius</i> | |
| Otter | <i>Lutra lutra</i> | EPS; WCA5; S.41 |
| Invertebrates | | |
| Stag Beetle | <i>Lucanus cervus</i> | Sch. 5; S. 41 |
| Small heath | <i>Coenonympha pamphilus</i> | S. 41 |
| White admiral | <i>Limenitis camilla</i> | S. 41 |

3.2.1 Priority habitats

Assessment of the Magic Map database identified no priority habitats within the application site.

3.2.2 Habitat descriptions

The proposed development site (Figure 1) comprises an existing lean-to extension with slates and some lead flashing, some hard standing and gravel, and some raised beds (e.g., herbs and shrubs) and sleeper retaining wall and a large pollarded sweet chestnut tree (*Castanea sativa*). At the time of surveying the well-maintained lawn northwest and south of the proposed extension support mostly grasses with some common forbs such as yarrow (*Achillea millefolium*) and ribwort plantain (*Plantago lanceolata*) (Photos 1 to 4).

3.2.3 Amphibians and reptiles

A potential breeding pond P1 (Photo 5, Figure 1) was shown on OS Maps within 250m of the application site boundary. An inspection of the pond found that it was choked with terrestrial plant species such as common nettle (*Urtica dioica*) which indicates the pond does not hold water and is not currently functioning as a pond.

Whilst the surrounding garden could provide a range of habitats including for overwintering for GCNs and common amphibians, due to the poor quality and lack of potential breeding ponds due to being heavily overgrown with vegetation the potential for GCNs being present on site was considered to be negligible.

3.2.4 Bats

The existing lean-to slate roof does not contain any lifted slates or gaps behind the lead flashing which could support roosting bats and therefore, no impacts are predicted. Good practice building practices are identified for the soft demolition of the existing roof structure – see Section 4.2.3(b)(i).

A physical inspection of two shallow splits on the mature sweet chestnut tree found no evidence of roosting bats.

The gardens as a whole include mature trees, shrubs and hedgerows which provide potential bat foraging habitat. As the hedgerows and trees are relatively well connected to other linear features in the wider locality (e.g., woodland, lines of trees and hedgerows) bats are likely to use them as local commuting corridors. As such, the site was assessed as supporting Moderate value bat foraging and commuting habitats (Collins, 2016).

3.2.5 Nesting birds

The mature sweet chestnut tree provides nesting and song perch opportunities for a range of small passerines such as song thrush (*Turdus philomelos*) (Red List; S. 41 List) and stock dove (*Columba oenas*) (Amber Status).

3.2.6 Other mammals

The lawn areas provide foraging habitat for hedgehogs. The mature sweet chestnut could support S. 41 list invertebrates, including Lepidoptera. No evidence of badgers was found on site.

4. Discussion

4.1 Habitats

a) Impacts

The application site largely contains habitats of low ecological value including a pollarded large, sweet chestnut tree (*Castanea sativa*), ornamental shrubs and herbs and a well maintained lawn. The retaining wall to be removed could provide habitats for stag beetles (*Lucanus cervus*) Sch. 5; S. 41 which have been recorded within the 250m buffer of the site and are in decline and invertebrates whilst the hardstanding and gravel should remain low impacted.

b) Mitigation

To prevent damage to retained habitats, the builder's compound (if required) should be sited on existing hard standing and away from mature trees, shrubs, and other retained boundary features.

The works footprint and associated disturbance should be minimised in extent as much as possible. Retained sections of hedgerow, trees/shrubs, and grassed areas should be protected with temporary fencing (e.g., Heras) to prevent above ground damage and Root Protection Areas (RPAs) should be used to inform the detailed design.

4.2 Species

4.2.1 General good working practices

Impacts likely to arise from the proposed development will be limited, subject to good housekeeping and working practices. The following measures are suggested to minimise the risk of incidental harm to species that may be present on or adjacent to the site.

- Any potential refugia present that requires removal (e.g., wood chippings and sleeper retaining walls) should be cleared sensitively (i.e., by hand where possible and under close observation) during April to October inclusive to avoid disturbing overwintering animals.
- The GCN poster in **Appendix A1** should be erected in the welfare facilities provided for construction staff on site.
- Should any GCNs be encountered at any stage works should stop immediately and advice be sought from a suitably experienced ecologist. Any other animals should be allowed to move out of the works area or safely relocated.

- Taller vegetation (e.g., hedgerow/shrubs and rough grassland) should be cleared sensitively if >300 mm in height and amphibians are active (i.e., early February to October inclusive) using a 2-stage cut as follows:
 - ❖ A first cut to 150mm above ground level with brush raked prior to being removed from site.
 - ❖ After at least 1 hour (preferably overnight), a second cut to ground level.
 - ❖ Maintained near to ground level until works commence on site.
- Any trenches required for service runs (e.g., water and electricity etc.) should be filled on the same day as excavation where possible. Trenches left overnight should be covered with ply/OSB sheets to prevent animals becoming trapped. If this is not possible then amphibian/mammal ladders must be installed (wide planks, laid at shallow angles to allow animals safe egress) and they should be maintained until the excavations are filled.
- Trenches should be inspected immediately prior to infill and any animals present (**except GCNs**) relocated to suitable nearby habitats (e.g., base of nearby hedgerow or within retained grassland away from the works footprint).
- Any concrete foundations and slabs (if required) should be poured during the morning to ensure they have hardened off prior to evening to reduce the risk of wildlife coming into contact with wet concrete.
- Any hand mixing of mortar or concrete should be on ply boarding over a tarpaulin which is folded over the boarding at the end of each day to prevent animals coming into contact.
- Any excess cement/concrete should be covered and removed from site as promptly as possible to avoid animals coming into contact.
- Any building materials should be stored on bare ground or hard standing, or stored off the ground on pallets; and
- Any demolition waste should be stored in skips or removed off site on the same day it is generated to avoid amphibians or small mammals seeking refuge. Any spoil (e.g., for footprints and services to be installed in trenches) stored on site temporarily should be stored on bare/hard ground or in skips.
- **Downpipes taking water off the roofs should be sealed at ground level by using a leaf and debris screen⁶ or similar to prevent amphibians entering drains.**
- **If gully pots are required, they should use small diameter (6mm) grates where possible or discharge via pipes without silt traps straight into a ditch or pond.**
- **Any installed gully pots should be situated ≥ 100 mm from the roadside, OR a wildlife-kerb⁷ must be installed adjacent to each gully pot AND a gully pot ladder⁸ placed into each gully pot.**

4.2.2 Amphibians and reptiles

a) Impacts

Vegetation clearance (e.g., shrub/ plant removal from the raised beds) could result in injury and/or death of animals using the site at the time. Groundbreaking and other construction activities may also result in the potential entrapment, injury, and mortality of amphibians due to the presence of trenches, building materials and temporary stockpiles of soil which animals can seek refuge within and then suffer injury/death when the materials are moved. On completion of the development, the use of gully pots or similar as part of a surface water drainage system can result in the entrapment of amphibians (Muir, 2012). **Combined, such impacts could result in permanent negative effects upon low numbers of individuals considered a minor negative effect at the Local level.**

b) Mitigation

See 4.2.1 General Good Working Practices.

4.2.3 Bats

a) Impacts

i) Foraging and commuting habitats

Vegetation clearance will result in the relatively small net loss of foraging and commuting habitat available on site, though not considered significant in terms of conservation status. **Such effects are not considered significant at the Local level.**

⁶ <https://www.drainagepipe.co.uk/leaf-and-debris-gully-110mm-p-D94G/>

⁷ e.g. <https://www.aco.co.uk/products/wildlife-kerb>

⁸ <https://www.thebhs.org/the-bhs-amphibian-gully-pot-ladder>

Proposed landscaping, including hedgerow and tree planting could increase the foraging habitat value of the site for bats in the long-term subject to species selection (e.g., native broadleaved species), appropriate management (e.g., lighting) and full establishment.

ii) *Light disturbance*

Lighting (construction and operational phases) can impact bat commuting and foraging behaviour and increase the risk of predation, which could affect foraging success and population recruitment and is **considered a potential significant effect at the Local level.**

iii) *Roofing membranes*

Research has shown bats can become entangled in modern breathable roofing membranes if used under certain tiles, such as clay pantiles or peg/plain tiles (Waring *et al.*, 2013) or behind weatherboarding. **Without mitigation, the impacts above could result in significant effects at a Local level.**

b) Mitigation

i) *Roosting bats*

The lead flashing should be lifted by hand and all the slates then removed by hand. In the unlikely event that a bat or evidence of bats is found then works should stop immediately with the bat (if found) left protected in the roof and advice should be sought from a licensed ecologist with regards to a way forward. This may require further surveys and the securing of a bat licence.

ii) *Foraging and commuting habitat*

As per 5.5, protective fencing will be used to protect retained trees and shrubs etc. The loss of mature trees should be compensated.

iii) *Light disturbance*

Exterior lighting (as well as temporary security lighting during the construction phase) design must minimise lighting impacts upon retained natural habitats including all boundary hedgerows and trees and should follow current guidance as necessary^{9,10}:

- *Type of lamp (light source)*: Light levels should be as low as possible as required to fulfil the lighting need. Lighting should have a maximum of 7.5 to 10 lux and LED lights. The lights should use bulbs with the warm white (or amber) spectrum, with peak wavelengths >550nm (2700°K) and no UV component; and
- *Lighting design*: Lighting should be directed to where it is needed, with minimal horizontal spillage towards retained habitats (target lux level of ≤ 0.5 lux at hedgerows and trees) such as hedgerows and trees. This can be achieved by only using downlighters (e.g., with no upward light beyond the horizontal) with PIR movement sensors and timers should be used to minimise the 'lit time'.

iv) *Roof membrane*

The new garden room will have a slate roof such that a Non-Bitumen Coated Roofing Membrane (NBCRM) could be used safely without the risk of entanglement as long as no gaps >4mm should use bat friendly roofing felt (e.g., Type 1F bitumen felt or a modern breathable roofing membrane which has passed a snagging propensity test as defined by Natural England and the Bat Conservation Trust) if handmade clay pantile or plain tiles are to be used where gaps >4mm between tiles exist. Bat friendly membranes should also be used behind timber weatherboarding due to the potential for the cladding to warp.

4.2.3 *Nesting birds*

a) Impacts

The removal of trees and shrubs will result in the loss of potential nesting and foraging habitat. If undertaken during the bird nesting season (1st March to 31st August). This could result in the disturbance and destruction of active nests, and potentially injure or kill young birds, **considered a significant negative effect (an offence under wildlife legislation) at the Local level.**

⁹ <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting>

¹⁰ www.eurobats.org/sites/default/files/documents/publications/publication_series/WEB_DIN_A4_EUROBATS_08_ENGL_NVK_28022019.pdf

Increased noise levels (during construction and operational phase) could affect the ability of birds to hold territories during the breeding season. Accidental damage to retained trees and shrubs could also affect breeding success and/or result in the destruction of active nests. **Such impacts would all have a negative effect at the Local level.**

b) Mitigation

The tree felling works should take place outside of the nesting bird season. If this is not feasible, a check for nesting birds should be undertaken and supervision must be undertaken by a suitably experienced ecologist immediately prior to and during the removal of the mature sweet chestnut tree and shrubs. If any active nests are present, works within 5m must wait until the young have fledged.

4.2.4 Hedgehogs

a) Impacts

Clearance of shrub vegetation, lawn and timber piles will result in the loss of foraging, refuge (including potentially for overwintering), and nesting habitat for hedgehog.

During construction, hedgehogs could potentially fall into open trenches resulting in entrapment and possible injury and mortality of individuals due to falling in or becoming in contact with caustic substances such as fresh concrete. Erection of ecological barriers (e.g., timber panel fencing as proposed along eastern site boundary) would affect foraging access for animals. **In combination such impacts would be considered to result in a negative ecological effect at the Local level.**

b) Mitigation

See *General Good Working Practices* to minimise the risk of animals falling into trenches created for utilities/service runs (if required) and concrete pours.

Site clearance should always consider the potential presence of hedgehogs with vigilance. Where clearance of dense vegetation is required, this should not be undertaken when temperatures are regularly below 6°C. Animals encountered at other times should be moved to suitable cover, e.g., base of hedgerows or in the grassland area to the west of the application site.

Hedgerows are shown on the proposed on the site layout plan and should be planted and not subsequently replaced with close board fencing or similar in the future as fences can prevent the free movement of hedgehogs between gardens and the open countryside.

Cumulative effects

The Babergh District Council planning portal was searched for relevant applications within 1km, dating back two years. Refused and withdrawn applications were not considered. The search returned some Prior Notification and householder applications as follows:

- **DC/23/05348: Oaks Farm Hadleigh Road Holton St Mary Suffolk.** Application to determine if Prior Approval is required for a proposed Change of Use of Agricultural Buildings to Dwellinghouses (C3) and for building operations reasonably necessary for conversion. Town and Country Planning (General Permitted Development) (England) Order 2015 as amended Schedule 2, Part 3, Class Q - Conversion of 2 Agricultural Buildings to form 2 No Dwellings. An Ecology Report was submitted with the application and barbastelle, common pipistrelle and soprano pipistrelle day roosts were identified in the barns.
- **DC/23/03492: Holton Hall Farm Hadleigh Road Holton St Mary Colchester Suffolk CO7 6NN.** Householder Application - Conversion of outbuilding to form ancillary living accommodation and installation of Air Source Heat Pump. An Ecology Report was submitted with the application and a common pipistrelle day roost was identified in the barn.
- **DC/23/03026: Lark Hall Sandpits Lane Holton St Mary Colchester Suffolk CO7 6NH.** Householder Application - Erection of extension and conversion of first floor of garage to form bedroom/home office including external staircase and alterations to openings. An ecology survey of the site was undertaken by MHE Consulting Ltd.
- **DC/22/04307: Holton House London Road Capel St Mary Ipswich Suffolk IP9 2JR.** Application to determine if Prior Approval is required for a Proposed Larger Home Extension: Town and Country Planning (General Permitted Development) (England) Order 2015 as amended Schedule 2, Part 1, Class A - Erection of a single storey rear extension. No ecology survey or report was provided with the application.

Due to the relatively limited nature of the scheme and planning search results returned, no significant cumulative effects are anticipated.

5 Habitat compensation

The proposed development requires the removal of a large, sweet chestnut tree (*Castanea sativa*), ornamental shrubs and herb planting raised beds made of sleepers and potential lawn damage whilst construction occurs. Some native trees should be planted to offset the mature sweet chestnut proposed for removal.

6 Biodiversity enhancements

A minimum of 3 of the 5 following biodiversity enhancement measures should also be implemented as part of the site landscaping as shown on the architects site layout drawing:

- Heritage fruit trees
Some heritage fruit trees (minimum of 4) could be planted using cultivars that originated from Suffolk and Essex (see www.applesandorchards.co.uk).
- Small passerine nest boxes
Sparrow terrace¹¹ (x2) could be mounted under the eaves of the two storey section of Oak Farm House whilst an open-fronted nest box¹² and a treecreeper box¹³ could be mounted on suitable trees around the site boundaries with exact locations agreed with a suitably experienced ecologist.
- Bat boxes
Two bat boxes comprising 1x Eco Kent bat box and 1x Vincent Pro bat box (Appendix A3) could be erected on retained mature trees. Good practice advice¹⁴ should be followed in relation to the positioning of boxes with exact locations agreed with a suitably qualified ecologist.
- Log/brush piles
Some log and brush piles (Appendix A2) could be created from the sweet chestnut tree which requires removal. Log piles provide important refuge habitat for amphibians and reptiles and are also likely to support a range of fungi, dead wood invertebrates, and solitary bees, which in turn will attract foraging small mammals and birds etc.
- Stag beetle loggery
A stag beetle loggery (Appendix A2) could be constructed from part of the sweet chestnut tree which requires felling. Any loggeries should be located within a semi-shaded area of the gardens. Stag beetle loggeries can support the larvae of stag beetles and other dead wood invertebrates, most of which are becoming rare and declining species.

To maximise potential biodiversity benefits the measures proposed should be secured through detailed design and appropriate planning conditions, scheme specific and/or as per the British Standard (BS 42020:2013) as follows:

1. BS 42020:2013 D.2.1: A Biodiversity Mitigation and Enhancement Strategy to detail mitigation, compensation and enhancement measures, to be reflected in the detailed landscaping proposals and site plans for the scheme;
2. BS 42020:2013 D.3.2.1. Nesting bird check (by suitably experienced ecologist) prior to tree/shrub and hedgerow removal;
3. BS 42020:2013 D.3.5 to limit lighting design impacts upon bats and other wildlife;
5. BS 42020:2013 D.3.8 to ensure mitigation, compensation and enhancement measures are successfully implemented.

It is generally advised that subject to no significant change in site management regimes, and dependent on the species present, baseline survey results typically remain valid for approximately 12 – 18 months (CIEEM, 2019).

Kind regards,

Christian Whiting BSc (Hons) MSc
Ecologist, MHE Consulting Ltd

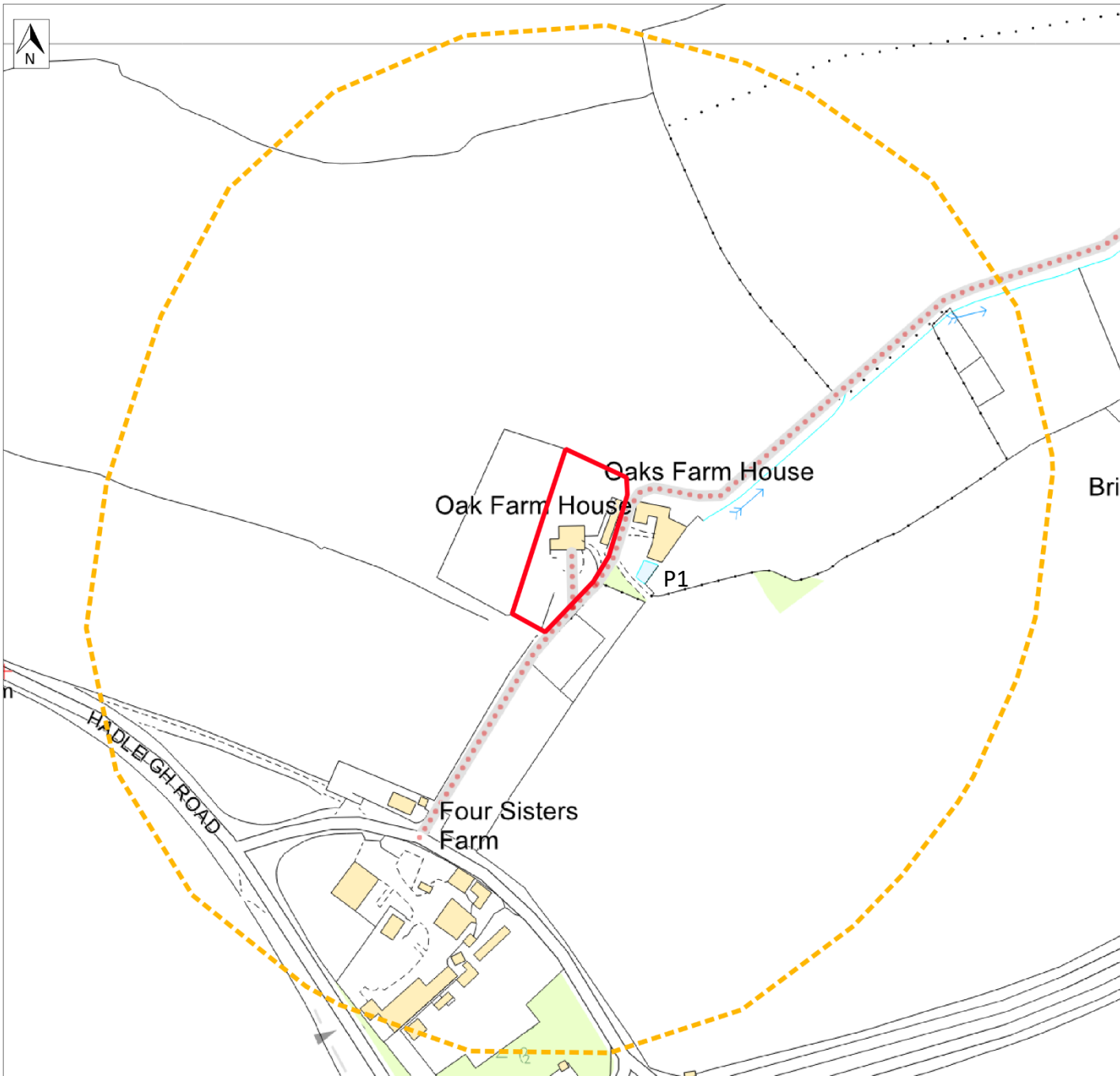
¹¹ <https://www.nhbs.com/1sp-schwegler-sparrow-terrace>

¹² <https://www.nhbs.com/vivara-pro-barcelona-woodstone-open-nest-box>

¹³ <https://www.nhbs.com/treecreeper-fsc-nest-box>

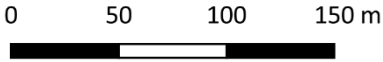
¹⁴ <https://www.nhbs.com/blog/nhbs-guide-where-to-hang-and-how-to-maintain-your-bat-box> and <https://www.rspb.org.uk/birds-and-wildlife/advice/how-you-can-help-birds/nestboxes/nestboxes-for-small-birds/making-and-placing-a-bird-box>

Figures



Legend

- 250m buffer
- Application boundary



Client: Mr and Mrs Torrington
 Project: Proposed alterations at Oak Farm House, Holton St Mary

| | | |
|--------|----------|----------------------|
| Drawn: | Date: | Drawing Ref: |
| CW | 27/11/23 | OAKFARMHOUSE/ECO/001 |

Figure 1 Location and ponds plan

Photos



Photo 1 current extension with lead flashing roof



Photo 2 Main roof of house, hard standing, raised beds and a large, sweet chestnut tree



Photo 3 Large pollarded Sweet Chestnut tree



Photo 4 Lawn area south of the dwelling



Photo 5 Heavily overgrown and silted pond P1 east of the property.

Appendix A1 GCN ID Poster



ADDRESS | Mill House, Homersfield, Harleston, Suffolk IP20 0ET
TELEPHONE | 01986 788791
EMAIL | millhouseecology@gmail.com

Great Crested Newt

If seen by any employee, works must cease immediately and an ecologist be contacted for advice

It is an offence to intentionally or recklessly disturb, injure or kill great crested newts

Further information can be found at www.arguk.org



https://secure.telegraph.co.uk/multimedia/archive/03435/great_crested_newt_3435922k.jpg

Build a log pile for stag beetles

Stag beetles are one of the largest insects in the UK. They are in decline across Europe but there are many simple things you can do to help.

How you can help stag beetles

Stag beetles don't move far from where they emerge. Although males can fly up to 500m, most female stag beetles don't travel more than 20m and return to where they emerged to lay eggs. This means populations are vulnerable to becoming isolated and if there isn't enough dead wood nearby, dying out all together.

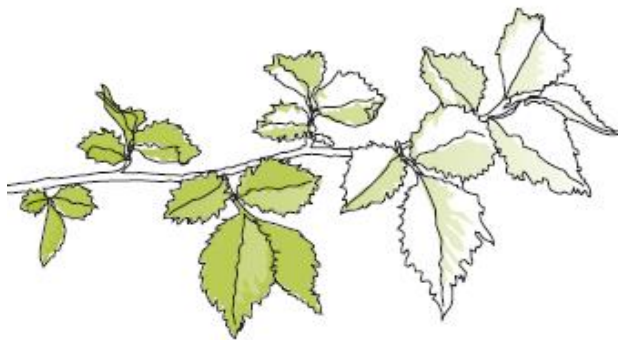
Private gardens are very important habitats for stag beetles. They rely on decaying wood that is in contact with the soil, both to feed on as larvae and in which to lay their eggs.

You can help by building a log pile in your garden to ensure that there is a good supply of suitable dead wood nearby for females to lay their eggs in.



Stag beetle facts

- ▶ They are Britain's largest native terrestrial beetle
- ▶ The larvae develop underground in rotting wood for several years
- ▶ The adult only lives for a few weeks in the summer with the sole purpose of finding a mate
- ▶ Adult beetles don't eat but rely on the fat stores built up during their larval stage
- ▶ The male's antler-like jaws are used to fight off rival males



Please create a log pile for stag beetles and map it at www.ptes.org/stagbeetle. For more tips please see over.



How to make a log pile

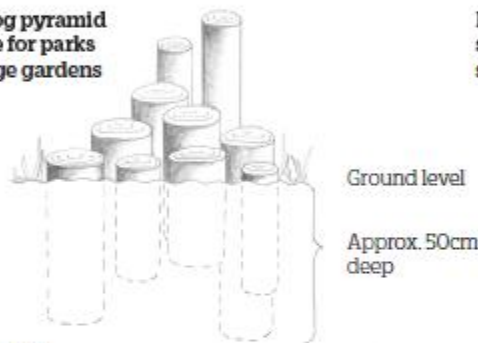
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- ▶ Log pyramids can be built at any time of year
- ▶ Use wood from any broadleaved tree
- ▶ The logs should be at least the thickness of an adults arm
- ▶ Site the logs in partial shade if possible to prevent them drying out
- ▶ Partially bury the logs in the soil so that they don't dry out
- ▶ Allow plants to grow over the log pyramid to retain moisture and provide shade

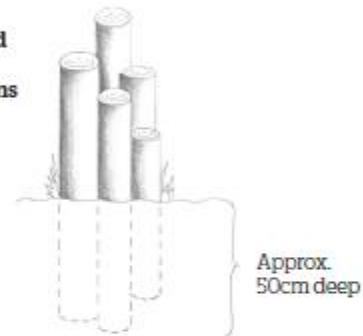
Your log pile will also benefit a range of other species including fungi, dead wood invertebrates and the animals that feed on them. It will be a great place for foraging small mammals, basking reptiles and potentially solitary bees.



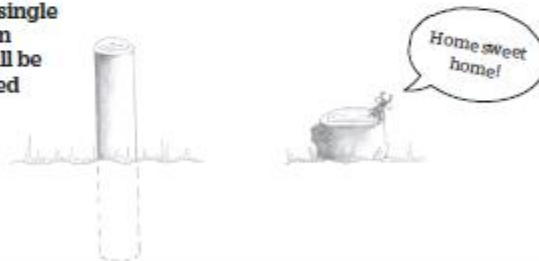
Large log pyramid suitable for parks and large gardens



Log pyramid suitable for small gardens



Or, if space is limited, a single log on or in the soil will be appreciated



More tips for stag beetle friendly gardening

- ▶ Leave tree stumps in place if possible, they can become garden features with plants growing over them
- ▶ Try not to use pesticides
- ▶ Keep a lid on your water butt as stag beetles are known to fall in and drown
- ▶ Avoid using polythene sheeting to control weeds. Newly emerging stag beetles can get trapped beneath it in spring and die
- ▶ If you find larvae in the bottom of rotten fence posts and need to move them, dig a hole elsewhere in your garden and put them in together with some of the rotting wood from the original site. Cover loosely with soil

Images: Ross Bower, Steve Heywood

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