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Ms A. Baker Cuttings Barn Earls Green Road Bacton Suffolk

Date: 27/03/24

Proposed residential cart lodge conversion and extension and new cart lodge erection – Cuttings Barn, Coppings Corner, Earls Green Road, Bacton, Stowmarket, Suffolk, IP14 4SA.

Dear Ms Baker,

Following our recent email and telephone correspondence I attended site on the 28 February 2024 to undertake an ecological survey at Cuttings Barn, Earls Green Road, Wyverstone (Figure 1, TM 04112 67023).

This letter report documents the results of the ecology site walkover. It makes recommendations for good practice working methods as well identifying opportunities for enhancing biodiversity to ensure compliance with relevant wildlife legislation. All photos referred to are provided in Appendix A1.

1 Nature of the proposed development

MHE Consulting Ltd were instructed to undertake a survey of a proposed residential conversion of a cart lodge, which is currently being used for general storage. A new detached cart lodge for the farmhouse is also proposed.

2 Desk study

The following data sources were consulted to assess the potential for the application site to support protected and notable species:

- Aerial photos: These were used to identify habitat types and suitability for particular species/groups;
- The Multi-Agency Geographic Information Centre (MAGIC) website (https://magic.defra.gov.uk) was accessed to identify designated sites relevant to the application site;
- Historical biological records: Biological records for within 2km of the site were provided by the Suffolk Biodiversity Information Service (SBIS); and
- Natural England open source data: GCN class survey data and eDNA records are available online and were checked to see if any more recent GCN records exist for the surrounding area.

3 Potential ecological receptors

The proposed development comprises an existing timber-framed cart lodge with pantiles, an area of hard standing, surrounded by managed lawn and a wild privet hedgerow (Photos 1 to 3, Figure 1), with the potential for the cart lodge to support roosting bats and breeding/roosting birds. An area of existing hard standing used for car parking is located between the existing cart lodge and the proposed cart lodge.

A pond P1 (Photo 4, Figure 2) is located southwest of Cuttings Barn which could potentially support great crested newts (*Triturus cristatus*) (WCA5; EPS; S. 41) and common amphibians such as common frog (*Rana temporaria*), common toad (*Bufo bufo*) (S. 41) and smooth newt (*Lissotriton vulgaris*). Areas of lawn habitat and trees by pond P1 provide potential foraging habitat for amphibians as well as hedgehog (*Erinaceus europaeus*).

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Survey methodology

4.1 Habitats and vascular plants

The site was walked with all distinct vegetation and habitat types, and any features of interest identified. Care was taken to record as many plant species as possible including any notable species.

4.2 Amphibians and reptiles

Pond P1 (Photo 4, Figure 2) is located c. 8m from the existing cart lodge and was assessed with regards to its potential for supporting GCNs. A second pond P2 (Figure 2) is located almost 250m north of the site but it is separated from the site by arable farmland and has not been assessed for GCN habitat suitability.

4.3 Badgers

The application sites and adjacent habitats were surveyed for evidence of badger activity including setts, day beds, latrines, diggings/snuffle holes, paths/runs, scratching posts, hair, and footprints. Any potential sett found was then assessed for evidence of recent use by badger and classified as per current guidance (Scottish Badgers, 2018).

4.4 Bats

The cart lodge and some adjacent trees were inspected for the presence of roosting bats with reference to the Bat Conservation Trust (BCT) "Bat Surveys: Good Practice Guidelines, 2nd edition" (Collins, 2016).

4.5 Breeding birds

The cart lodge was inspected for evidence of nesting or roosting birds.

4.6 Surveyor experience

Christian has over 24 years' experience as a professional ecologist and holds Natural England survey licenses for bats (2015-14745-CLS-CLS - Bat Survey Level 2), barn owl (CL21/0213) and great crested newts (Class A licence CLS00657).

4.7 Survey constraints

None as access was possible to all of the site.

Survey results

5.1 Designated sites

Locally and Nationally designated sites are identified within 2km and 5km of the application site respectively and are displayed within Table 5.1 below. No Internationally designated sites exist within 13km of the application site boundary.

Table 5.1 Locally and Nationally designated sites

Site name, designation(s), and details.	Distance from site
The Gardens Great Ashfield SSSI	4.3km West

The Gardens Great Ashfield SSSI

This site which consists of four floristically rich ancient meadows is one of the remaining examples of unimproved calcareous clay and neutral grassland in Suffolk. It is traditionally managed by a combination of grazing and cutting for hay and supports a wide variety of grasses and herbs including a population of common twayblade (Listera ovata). The grass sward is dominated by quaking grass (Briza media), crested dog's-tail (Cynosurus cristatus), and glaucous sedge (Carex flacca). The herb flora is exceptionally rich and contains many species characteristic of this type of grassland, notably green-winged orchid (Orchis morio) and bee orchid (Ophrys apifera). Other species include



meadow saxifrage (Saxifraga granulata), pepper saxifrage (Silaum silaus), adder's-tongue fern (Ophioglossum vulgatum), and sulphur clover (Trifolium ochroleucon).

The proposed site falls within the SSSI Impact Risk Zone of the SSSIs, however, the proposed scheme does not meet the relevant criteria and the relative scale of proposed residential development is therefore not considered likely to significantly impact or effect the notable woodland communities of the site.

As there are no Internationally designated sites (i.e. Natura 2000 or Ramsar) within 13km of the application site boundary, no significant impacts or effects are anticipated due to the proposed development.

5.2 Species Records

Notable species records for within 250m and 2km of the application site boundary as listed in Table 4.2 below.

Table 5.2 Protected/notable species recorded within 2km of the site boundary

Common name	Scientific name	Legal/conservation status
Amphibians		
Common toad	Bufo bufo	WCA5; Sch. 41
Smooth newt	Lissotriton vulgaris	WCA5*
Common frog	Rana temporaria	WCA5
Great crested newt	Triturus cristatus	EPS; WCA5; S. 41
Reptiles		,
Grass snake	Natrix helvetica	Sch. 5; S. 41
Bats		
Western barbastelle	Barbastellus barbastellus	EPS; WCA5; S. 41
Serotine	Eptesicus serotinus	EPS; WCA5
Daubenton's bat	Myotis daubentonii	EPS; WCA5
Natterer's bat	Myotis nattereri	EPS; WCA5
Noctule	Nyctalus noctula	EPS; WCA5; S. 41
Common pipistrelle	Pipistrellus pipistrellus	EPS; WCA5
Soprano pipistrelle	Pipistrellus pygmaeus	EPS; WCA5; S.41
Brown long-eared	Plecotus auritus	EPS; WCA5; S. 41
Birds	,	
Swift	Apus apus	Amber Status
Skylark	Alauda arvensis	Red Status; S. 41
Stock dove	Columba oenas	Amber Status
Cuckoo	Cuculus canorus	Amber Status
Yellowhammer	Emberiza citrinella	Red Status; S. 41
Linnet	Linaria cannabina	Red Status; S. 41
Spotted flycatcher	Muscicapa striata	Amber Status; S. 41
House sparrow	Passer domesticus	Red Status; S. 41
Bullfinch	Pyrrhula pyrrhula	Amber Status; S. 41



Common name	Scientific name	Legal/conservation status
Turtle dove	Streptopelia turtur	Amber Status; S. 41
Starling	Sturno vulgaris	Red Status; S. 41
Song thrush	Turdus phiomelos	Red Status; S. 41
Fieldfare	Turdus pilaris	WCA1; Red Status
Barn owl	Tyto alba	WCA1
Other mammals	•	·
Water vole	Arvicola amphibius	WCA5; S. 41
Hedgehog	Erinaceus europaeus	S. 41
Brown hare	Lepus europaeus	S. 41
European otter	Lutra lutra	WCA5; EPS; S. 41
Badger	Meles meles	PBA 1992
Harvest mouse	Micromys minutus	S. 41
S. 41 species	•	
White-letter hairstreak	Satyrium w-album	WCA5; S. 41

^{*}Wildlife and Countryside Act 1981 (as amended) - relevant

5.3 Other records

The closest record of GCN presence is from 2014 in a pond 3km away. This is well outside the normal dispersal range.

5.4 Field survey

a) Habitats

The proposed development comprises an existing timber-framed cart lodge with pantiles, an area of hard standing, surrounded by managed lawn and a wild privet (*Ligustrum vulgare*) hedgerow (Photos 1 to 3, Figure 1). The area of existing hard standing used for car parking is located between the existing cart lodge and the proposed cart lodge. Pond P1 (Photo 4) is located southwest of Cuttings Barn and there are areas of lawn habitat and trees in proximity.

b) Amphibians and reptiles

Pond P1 (Photo 4, Figure 1) is moderately turbid with a large covering of common duckweed (*Lemna minor*) on the surface. It attained an HSI score of 0.575 which means its habitat is below average for supporting GCNs. The pond normally dries up towards the end of the summer in most years, but at the time of the survey was holding a highwater level which is unsurprising following the record rainfall levels experienced in Suffolk over the past year with many areas receiving double the average. Given its small size and isolated nature within an otherwise arable landscape it is considered unlikely to support a significant population of GCNs. However, their presence cannot be ruled out.

Two eDNA sampling surveys by MHE Consulting of two ponds at Redhouse Farm, Bacton (620m to the southwest) and Town Farmhouse, College Farm (690m to the west) came back negative for the presence of GCNs in 2023. Six out of eleven ponds at Sudbourne Farm, Wyverstone (c. 750m – 1km to the northwest) contained moderate populations of GCNs in April/May 2020.



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Grass snake may visit the pond P1 to hunt and therefore could potentially move through the application site. However, the application site comprises mostly of hard standing and short managed lawn and therefore is considered unsuitable for supporting significant resident amphibian and reptile populations.

c) Badger

No badger setts or evidence of badger activity were found on site.

The barn is timber framed with timber cladding and a pantile roof with no gaps between tiles. No evidence of roosting bats was recorded internally in the cart lodge which also had no suitable roosting niches. The external cladding and roof are in good condition with no potential roosting niches visible from the ground.

Breeding birds

No nesting birds such as barn owl, swallow (Hirundo rustica) or house sparrow were recorded within the cart lodge or under the eaves.

f) S. 41 list habitats and species

Some ornamental privet and planted box hedgerows exist which do not qualify as S. 41 list habitats, but some sections of wild privet hedgerow exist, a section of which requires removal to create access to the proposed cart lodge to the south-east of the residential barn. The gardens provide potential refuge areas for hedgehogs.

6 Assessment and recommendations

6.1 Description of the development

The assessment and recommendations below provide a preliminary assessment of mitigation, compensation and enhancements for the proposed development based on the drawings available at the time of writing; they should be updated accordingly as the scheme is subsequently amended.

6.2 Ecological Impact Assessment

This assessment, made with reference to the CIEEM guidelines to Ecological Impact Assessment (CIEEM, 2018) aims to:

- Identify and characterise impacts;
- Avoid, and where necessary incorporate mitigation measures to reduce any impacts;
- Assess the significance of residual effects;
- Identify appropriate compensation measures to offset significant residual effects; and
- Identify opportunities for ecological enhancement where feasible.

The assessment and recommendations have been made with reference to the CIEEM guidelines for Ecological Impact Assessment (2018). The scale of impacts has been assessed with reference to the criteria in Table A3.2.

6.3 Habitats

Potential impacts

No significant negative effects on natural habitats are predicted with the proposed residential cart lodge conversion and extension. The proposed cart lodge erection will result in the loss of a short section of S. 41 wild privet hedgerow which has a negative effect at the Local level.



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b) Mitigation

Retained hedgerows, trees and lawns should be protected with temporary fencing (e.g. Heras) during the works to prevent damage to above ground growth whilst Root Protection Areas (RPAs) should be used to inform the detailed design.

Compensatory habitat c)

A new section of mixed species rich native hedgerow is proposed along the existing driveway. It should include a minimum of 6 of the following woody species:

- field maple (Acer campestre)
- hornbeam (Carpinus betulus)
- common dogwood (Cornus sanguinea)
- hazel (Corylus avellana)
- hawthorn (Crataegus monogyna)
- spindle (Euonymus europaeus)
- holly (*Ilex aquifolium*)
- Wild privet
- Cherry plum (Prunus cerasifera)
- guelder rose (Viburnum opulus)

Residual effects

No significant residual effect on habitats is predicted with positive effects once hedgerows planted in the gardens have established.

6.4 Amphibians and reptiles

Potential impacts

During the construction phase there is potential for injury or death of animals through animals falling into any open trenches for the footings of the proposed extension to the cart lodge. On completion of the conversion any alterations to the surface water drainage could result in the entrapment of amphibians (including GCNs) in surface water drainage hoppers if the down pipes are not sealed at ground level. Such impacts would be considered a significant negative effect at the Local level.

If the surface water is to be discharged directly into the pond via a pipe (with no silt traps) the additional water would benefit the pond by maintaining water levels during the summer months and would help by flushing the pond and would be considered a significant positive effect at the Local level.

b) Mitigation

Given the close proximity of the pond to the likely working area there is a low risk of any ground excavations potentially impacting GCNs. The risk of significant numbers of GCNs being encountered is low due to the small footprint of the proposed works and the quality of the pond isolated within arable farmland which surrounds the site. Therefore, as the Natural England GCN method statement identifies non-licensed avoidance measures can be employed to avoid impacts on GCNs, an unlicensed mitigation approach is recommended as follows:

- Any vegetation removal should be undertaken by hand with long vegetation cut down to ground level in layers and any common amphibians encountered should be moved to existing hedgerows.
- If any GCNs (Appendix A2) are encountered works must stop immediately and advice be sought from a suitably 2. experienced ecologist.



- During the construction phase, trenches should be excavated during hot weather when the risk of amphibians moving at night is greatly reduced compared to the spring when amphibians move to the ponds to breed or the late summer when juveniles leave the pond following metamorphosis.
- 4. If the trenches cannot be filled on the same day as excavation to prevent animals falling in during the night, the trenches must be covered overnight with ply/OSB sheets, and any gaps must be sealed with damp sand.
- Footings and concrete slabs should be poured during the morning to ensure it has hardened off prior to evening 5. to reduce the risk of animals touching wet concrete.
- 6. 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.
- 7. All building materials should be stored on bare ground or hard standing or stored off the ground on pallets.
- Any building waste stored on site temporarily should be stored on bare/hard ground or in skips to prevent amphibians or reptiles from seeking refuge.
- Any installed gully pots must be situated ≥100mm from roadside; OR a wildlife-kerb¹ must be installed adjacent 9. to each gully pot; OR a gully pot ladder² placed into each gully pot.
- 10. Any downpipes taking water off the roofs should be sealed at ground level by using a leaf and debris screen³ to prevent amphibians entering drains.
- Compensatory habitat

None required.

Residual effects

No significant residual effect on habitats are predicted.

6.5 Bats

Potential impacts

No impacts on existing roosts are predicted as no evidence of roosting bats in the cart lodge was recorded.

Any re-roofing of the extended cart lodge with a modern non-bitumen coated roofing membrane (NBCRM) could potentially result in bats becoming entangled which would be considered a significant negative effect at the Local level.

Any lighting could impact foraging and commuting bats considered a significant negative effect at the Local level.

b) Mitigation

Existing roof tiles should be removed by hand as part of any re-roofing works. Works should be programmed for the autumn or spring when the likelihood of bats being present is low. Works must stop if any bats are encountered, and advice sought from a licensed bat ecologist or a Natural England European Protected Species advisor.

During both construction and upon completion of the proposed development, the use of lighting needs to be positioned to avoid illumination of retained habitats such as the pond, hedgerows and trees.

Lighting design will be made with refence to published guidance⁴ and will incorporate some of the following:

² https://www.thebhs.org/the-bhs-amphibian-gully-pot-ladder

¹ https://www.aco.co.uk/products/wildlife-kerb

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

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



- Type of lamp (light source): Light levels should be as low as possible as required to fulfil the lighting need. LED lights should be used preferentially, using the warm white spectrum with peak wavelengths >550nm (~2700°K). UV elements and metal halide, fluorescent sources must be avoided; and
- 2. Lighting design: Lighting should be directed to where it is needed, with no horizontal spillage towards retained trees, hedgerows, ponds, or watercourses. This can be achieved by restricting the height of the lighting columns and the design of the luminaire as follows:
 - Light columns in general should be as short as possible as light at a low level reduces the ecological impact.
 - Luminaires with an upward light ratio of 0% should be mounted on the horizontal i.e. with no upward tilt.
 - If taller columns (> 8m) are required, and as a last resort, accessories such as baffles, hoods or louvres can be used to reduce light spill.

Compensatory habitat

None required.

d) Residual impacts

No significant effect is predicted during the construction and operational phases of the scheme.

6.6 Breeding birds

Potential impacts

Ahead of, and during the construction phase, works have the potential to disturb roosting or nesting birds such as swallows should they nest within the open sided section of the cart lodge. Any disturbance of nesting birds could cause birds to abandon nests, which is considered a significant negative effect upon species at the Local level.

b) Mitigation

During the construction phase, the following measures should be taken to avoid impacts upon breeding birds:

- Commencement of any internal building works should preferably be undertaken outside the main bird breeding 1. season (March to August inclusive).
- 2. If this is not possible then the cart lodge should be checked for the presence of nests. Any nest sites should be clearly marked on site and site staff briefed on their location; and
- 3. Retained hedgerows and trees should be protected with temporary fencing (e.g. Heras) during the works to prevent damage to above ground growth whilst Root Protection Areas (RPAs) should be used to inform the detailed design.

Compensatory habitat c)

Two open-fronted robin/wren boxes should be erected, e.g. one on the west elevation of he converted cart lodge and one on the north elevation of the new cart lodge.

d) Residual effects

The mitigation prescribed will ensure there is no significant residual effect upon breeding birds during the construction and operational phase of the scheme.

6.7 S. 41 list habitats and species

a) Potential impacts

The removal of c. 15m of an existing privet hedgerow has the potential to disturb or injure hedgehogs foraging or seeking refuge. Open trenches could entrap hedgehogs which could also seek refuge in spoil heaps or building material in late autumn for overwintering. Such construction impacts will have a significant negative effect.

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b) Mitigation

Heras fencing should be positioned to protect retained areas of retained hedgerows when carrying out works. The removal of the privet hedgerow should be carried out in small sections at a time to allow a check for hedgehogs obstructing the work. During the construction phase, trenches should be filled on the same day as excavation where possible to prevent hedgehogs from falling in. Where this is not possible the trenches should be covered overnight with ply/OSB sheets or mammal ladders (short planks of wood laid at an angle from the trench bottom to a top edge) provided.

c) Compensatory habitat

The 15m of hedgerow that requires removal will be compensated with the planting of 20m of native hedgerow along part of the driveway with a minimum of 6 woody shrub species.

d) Residual effects

Mitigation prescribed together with the recommended compensation will ensure there are no significant residual effects on S. 41 list habitats or species.

6.8 Cumulative impacts

The Mid Suffolk District Council planning website was searched on the 4 March 2024 dating back a minimum of 2 years. The following applications were identified:

- DC/22/04228 | Application to determine if Prior Approval is required for a Proposed: Change of Use of Agricultural Buildings to Dwellinghouses (Use Class C3), and for building operations reasonably necessary for the conversion The Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended) - Schedule 2, Part 3, Class Q - Conversion of barn to form 5No. Dwellings. | Barn at College Farm College Road Earls Green Wyverstone Stowmarket Suffolk IP14 4SD. No ecological report was submitted.
- DC/21/03921 | Householder Planning Application Erection of a cart lodge and addition of a lobby extension. | Wagons Rest Earls Green Road Bacton Suffolk IP14 4SA. No ecological report was submitted.

Enhancement opportunities

If the recommended mitigation and compensatory measures are implemented, no significant adverse impacts of the development on protected and notable species are predicted.

Conversely, biodiversity enhancement opportunities (Table 6.1) exist that could deliver significant biodiversity enhancements to ensure the development complies with the requirements of the Natural Environment and Rural Communities (NERC) Act 2006.

Table 6.1 Biodiversity enhancement recommendations

Feature	Enhancement suggestion
Landscaping (general)	 The soft landscaping includes the planting of a should consider opportunities to plant native tree species No peat-based composts should be used in any planting schemes for the site.
Bat boxes	2. Two bat boxes could be erected on the east, south or west elevations on the extended cart lodge or on mature trees on site (Appendix A3).
Bird boxes	3. A minimum of 2 boxes sparrow terraces (Appendix A4) could be erected on the cart lodge.



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7 Conclusions

Subject to the recommendations made in Section 6 it is anticipated that the proposed development is consistent with the relevant regulatory and planning policy guidance and wildlife laws.

The redevelopment of a previously developed site is consistent with the relevant planning policy guidance for conserving and enhancing the natural environment.

Negative ecological impacts resulting from the proposed development should where feasible be mitigated for as recommended. Mitigation of impacts identified in this report for the construction phase of the scheme could be secured through standard planning conditions (BS 42020:2013⁵). The suggested ecological enhancements would deliver a local biodiversity benefit.

Yours sincerely

Christian Whiting

References

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

Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition), Bat Conservation Trust, London.

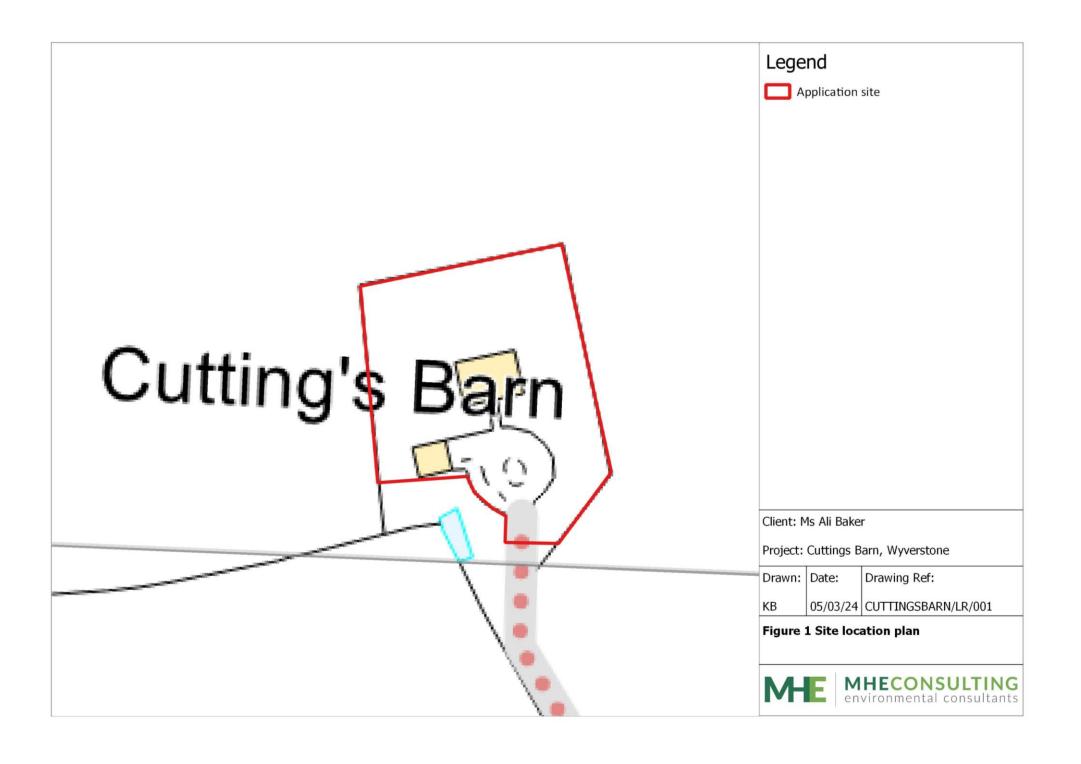
Eaton, M.A., Brown, A.F., Noble, D.G., Musgrove, A.J., Hearn, R., Aebischer, N.J., Gibbons, D.W., Evans, A. and Gregory, R.D. (2015) Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man. *British Birds* 102, pp296-341.

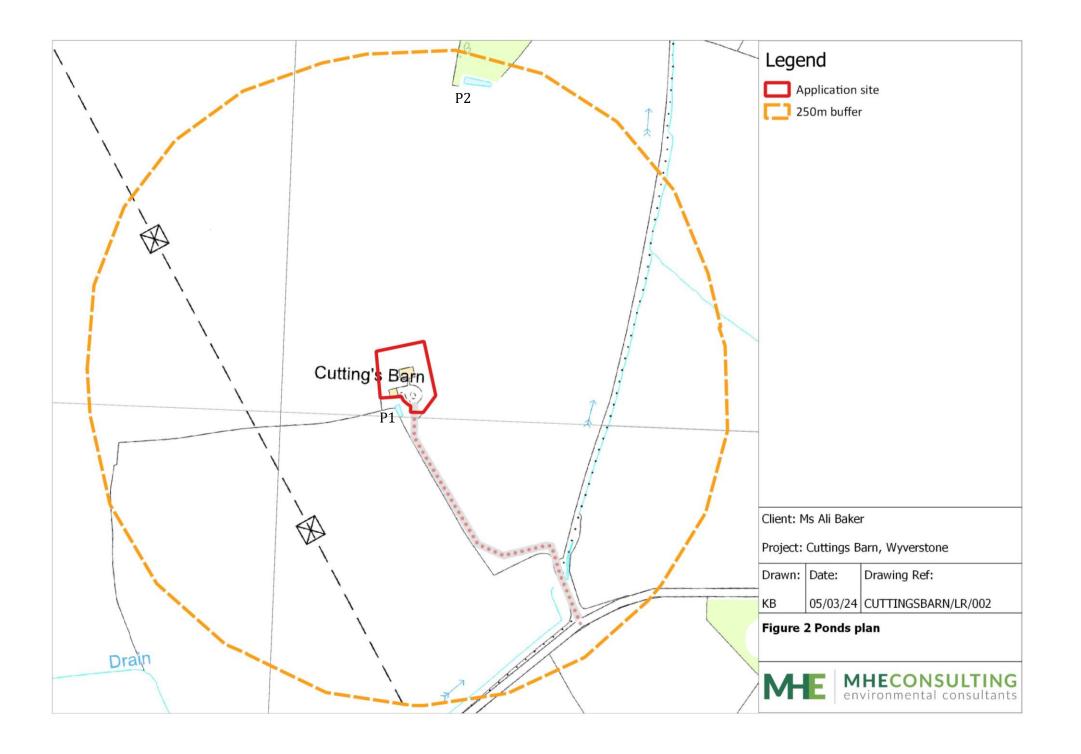
JNCC (2010) Handbook for Phase 1 habitat survey – A technique for environmental audit, JNCC, Peterborough

Oldham, R.S., Keeble, J., Swan, M.J.S. and Jeffcote, M. (2000), Evaluating the suitability of habitat for the great crested newt (*Triturus cristatus*), Herpetological Journal: 10(4): 143-155

Scottish Badgers (2018) Surveying for Badgers: Good Practice Guidelines. Version 1.

Figures





Appendices

Appendix A1 Photos



Photo 1 Southwest elevation of existing cart lodge



Photo 2 Northern elevation



Photo 3 Managed lawn and privet hedgerow



Photo 4 Pond P1

Appendix A2 GCN poster



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







Appendix A3 Bat boxes

The Kent bat box

Simple to construct, self-cleaning and low maintenance.

The only critical measurement is the width of the crevices—these should be no larger than suggested. Other measurements are approximate.

Materials and construction

Box to be made from untreated rough-sawn timbers Timber should be c,20mm thick

The box should be rainproof and draught-free Crevices can be between 15 and 25 mm wide Fixing may be by use of brackets, durable bands or wires

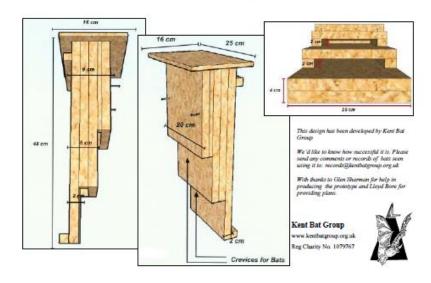
Location

Boxes are best fixed as high as possible in a sheltered wind-free position, exposed to the sun for part of the day. They can be fitted to walls, other flat surfaces or

trees

A clear flight line to the entrance is important





Appendix A4 Bird boxes

