

The Cherries, Ashen Road, Clare, Suffolk, CO10 8LG T: 01787 277912

E: roger@skilledecology.co.uk
W: www.skilledecology.co.uk

Preliminary Ecological Appraisal Including a Protected Species Assessment of Land at:

Royston Farm, Kiln Lane, Elmswell, Bury St Edmunds, Suffolk, IP30 9QR.

On behalf of:

Colin Lomax

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Skilled Ecology Consultancy Ltd.

Registered company in England no: 7188811

Registered Office: 7 Trust Court, Histon, Cambridge, CB24 9PW

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0 SUMMARY

- 1.1.1 Skilled Ecology Consultancy Ltd. was commissioned by Colin Lomax to undertake a Preliminary Ecological Appraisal (PEA) including a Protected Species Assessment at Royston Farm, Kiln Lane, Elmswell, Bury St Edmunds, Suffolk, IP30 9QR. The report is required for change of use of buildings at the site from commercial to residential.
- 1.1.2 The survey was conducted on 6th July 2023 by experienced ecologist Roger Spring BSc MCIEEM (licensed to survey for great crested newts *Triturus cristatus* and licenced to survey for bats level 2). The survey consisted of an inspection for preferred habitat types and signs and evidence of protected and priority species, such as for bats, great crested newts, reptiles, badgers *Meles meles* and nesting birds following Natural England (English Nature) Guidelines. A local biological record search was undertaken.
- 1.1.3 The site is small and includes: one, single-storey, breezeblock workshop with a pitched, tiled roof (interlocking tiles) and a modern breathable membrane lining, as well as three timber frame workshops/storage sheds constructed with a light timber frame and sloping corrugated iron roofs. The buildings were surrounded by gravel. Short improved grassland (lawn) and a small number of mature trees were also present within the remaining site, though are understood to not be impacted by the proposed works.
- 1.1.4 The site is positioned in a rural location with residential housing south and north of the site, the A14 immediately west and an arable field across Kiln Lane to the east.
- 1.1.5 The features of highest ecological value present were the boundary trees, proposed for retention. The remaining site is a common and widespread habitat very low in ecological value. No signs or evidence of protected, priority or rare species were observed on or adjacent to the site.
- 1.1.6 The risk of significant impact or harm to protected, priority or rare species or notable habitats was considered very low/negligible.
- 1.1.7 Further ecological surveys or mitigation were considered unnecessary. However, to minimise any residual risk of impact, precautionary measures for bats, hedgehogs, amphibians and birds are provided in this report and should be followed.
- 1.1.8 With the recommendations followed as described, development could proceed with a minimal risk of harm or impact to local ecological value or to protected, priority or rare species and notable habitats. Biodiversity enhancement recommendations are also included.

1 INTRODUCTION

1.1 Background

- 1.1.2 Skilled Ecology Consultancy Ltd. was commissioned by Colin Lomax to undertake a Preliminary Ecological Appraisal (PEA) including a Protected Species Assessment at Royston Farm, Kiln Lane, Elmswell, Bury St Edmunds, Suffolk, IP30 9QR. The report is required for change of use of buildings at the site from commercial to residential.
- 1.1.3 Wildlife such as nesting birds, bats, reptiles and great crested newts *Triturus cristatus* are protected by law. Protected and priority species and habitats, are also a material consideration for individual planning decisions under the National Planning Policy Framework, 2021 (MHCLG, 2021).
- 1.1.4 This study and report complies with the Chartered Institute for Ecology and Environmental Management (CIEEM) 2017 Guidelines for Preliminary Ecological Appraisals.
- 1.1.5 CIEEM guidelines indicate that ecological surveying typically remains valid for between 12 and 18 months (CIEEM, 2019).

2 METHODOLOGY

2.1 Desk Study

- 2.1.1 A bat record search was obtained through the Suffolk Biodiversity Information Service (SBIS) and is summarised below.
- 2.1.2 A search of the Multi-agency Geographical Information for the Countryside (MAGIC) was also conducted, to check for statutory nature conservation sites.
- 2.1.3 These results were then combined with the findings of the site survey, to assess the risk of ecology issues, relevant to planning, occurring on the site.

2.2 Study Limitations

2.2.1 Botanical assessment was undertaken at a suitable time of year, though some early flowering species and annuals may not be visible or identifiable to species level.

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2.3 Initial Site Survey

Habitats and Surroundings

- 2.3.1 The site was visited on the 6th July 2023 to survey for ecology issues. This included the following:
 - Noting the suitability of habitats present on the site, with regard to protected, priority and rare species; including plants, amphibians, reptiles, mammals, nesting birds, invertebrates and protected, priority or red-listed Birds of Conservation Concern (BoCC);
 - Assessing the habitats surrounding the site and in the local area;
 - Direct survey for evidence of protected species as far as possible, e.g. for bats, reptiles, great crested newts, badgers *Meles meles*, and nesting birds;
 - Checking for invasive species such as Japanese knotweed *Fallopia japonica* and giant hogweed *Heracleum mantegazzianum*.

Bat Inspection

- 2.3.2 The assessment for bats was conducted by an experienced ecologist, licensed by Natural England to disturb and take bats for science and education. Buildings were internally and externally inspected and trees externally inspected for bat activity, suitability and potential for roosting following English Nature Bat Mitigation Guidelines (English Nature, 2004) and Bat Conservation Trust Best Practice Guidelines, therefore considerations were:
 - the availability of access to roosts for bats;
 - the presence and suitability of cracks, crevices, gaps, fissures, ivy growth and other places as roosts;
 - signs of bat activity or presence, such as; the bats themselves, droppings, grease marks, scratch marks, urine spatter and prey remains.
- 2.3.3 Equipment available for use during the survey included a ladder, high powered torch, digital camera and binoculars.
- 2.3.4 The availability of access to roosts was assessed based upon the presence of holes large enough to allow entry to bats and lack of cobwebs and dirt.
- 2.3.5 The outside and inside of buildings and outside of trees were inspected for gaps, cavities, access points and crevices, and any signs of bats (droppings, staining, urine spatter), in accordance with Natural England (English Nature) guidelines (English Nature, 2004).

Reptiles & Amphibians

- 2.3.6 The site was inspected for potentially suitable terrestrial habitats for foraging, sheltering or dispersing amphibians and foraging, sheltering, breeding and basking habitat for reptiles. High quality terrestrial refuges searched for, included:
 - Log piles & rockeries,
 - Thick leaf litter,
 - Compost & manure heaps,
 - Mammal burrows,
 - Deep ground cracks;
 - Refuse suitable for shelter;
 - Tussock grassland;
 - Hedgerows and any other potential habitats.
- 2.3.7 The closest pond to the site was inspected for suitability for great crested newts by undertaking a Habitat suitability Index assessment as developed by Oldham *et al.* 2000.

Badgers & Other Mammals

- 2.3.8 Signs and evidence of badgers, and other protected, priority and rare mammal activity searched for included the following:
 - Setts, holes and burrows;
 - Foraging holes and other diggings;
 - Latrines, droppings, spraints and scats;
 - Mammal hairs;
 - Paw prints and other tracks;
 - Feeding remains;
 - Scratch marks, bedding material and other signs.

3 RESULTS AND RISK

3.1 Site Description & Location

- 3.1.1 The site is small and includes: one, single-storey, breezeblock workshop with a pitched, tiled roof (interlocking tiles) and a modern breathable membrane lining, as well as thre timber frame workshops/storage sheds constructed with a light timber frame and sloping corrugated iron roofs. The buildings were surrounded by gravel. Short improved grassland (lawn) and a small number of mature trees were also present within the remaining site, though are understood to not be impacted by the proposed works.
- 3.1.2 The site is positioned in a rural location with residential housing south and north of the site, the A14 immediately west and an arable field across Kiln Lane to the east.
- 3.1.3 The closest pond to the site is a woodland pond/ditch widening approximately 135m north adjacent to Kiln Lane (Ordnance Survey Maps, 2023). The only other pond indicated within 250m was located approximately 220m north, though recent aerial photography indicates the ground has been cleared and the pond has been removed.

3.2 Nature Conservation Sites

3.2.1 The closest statutorily designated nature conservation site is Norton Wood Site of Special Scientific Interest (SSSI) located approximately 1.4km north of the site and designated for its ancient woodland habitats with notable flora and fauna (MAGIC, 2023).

3.3 Protected, Priority & Rare Species

Vegetation & Habitats

- 3.4.1 The site is mostly buildings and gravel, though a small number of mature trees are present and short improved grassland (lawn). It is understood that the trees and grass do not require impact for the proposed development.
- 3.4.2 No protected, priority or notable plants were found on or adjacent to the site. No Schedule 9 invasive plant species were found. No UK priority habitats were present or proposed for impact.

Bats

- 3.4.3 Buildings were all considered negligible in suitability or potential for roosting bats. The main breezeblock workshop was well-sealed to bats with negligible opportunities for roosting around the roof (interlocking tiles), soffits or walls. The timber workshops/storage sheds were constructed from light materials with a metal roof likely to cause high temperature fluctuations. Bats typically prefer stable environmental conditions at roosting sites.
- 3.4.4 The mature trees were negligible in suitability for roosting bats with negligible opportunities for roosting.
- 3.4.5 No signs or evidence of bats were discovered associated with the buildings or trees on the site. The boundary trees are likely to be visited on occasions by low numbers of foraging bats.

Other Protected & UK Priority Mammals

3.4.6 The site is small in size and low in suitability for foraging or sheltering by other protected priority or rare mammals such as badgers *Meles meles* and hedgehogs *Erinaceus europaeus* etc. No signs or evidence of such were noted during the survey (on site or off site). It is possible that the occasional hedgehog or badger may cross the site for temporary foraging.

Birds

- 3.4.7 Birds observed or heard on or close to the site during the survey included: robin *Erithacus rubecula*, goldfinch *Carduelis carduelis*, jackdaw *Coloeus monedula*, green woodpecker *Picus viridis* and wood pigeon *Columba palumbus*.
- 3.4.8 No signs or UK protected birds (barn owl etc.) were recorded. No old or active bird nests were found, though the trees were considered theoretically suitable for low numbers of common nesting birds. Green woodpecker are amberlisted Birds of Conservation Concern (BoCC). All other birds recorded are green-listed BoCC.
- 3.4.9 The BoCC ratings are summarised as follows:
 - Red-listed highest conservation concern;
 - Amber-listed moderate conservation concern;
 - Green-listed least conservation concern.

Great Crested Newts & Other Amphibians

- 3.4.10 Habitats present and proposed for impact included mostly buildings and gravel. Short grass is also present on the site though it is understood this habitat does not require impact for the proposed development.
- 3.4.11 No amphibians were discovered during the survey visit.
- 3.4.12 The closest pond to the site was inspected for suitability and potential for great crested newts. The pond was assessed as poor suitability for great crested newts mainly due to heavy shade, annual drying and negligible aquatic vegetation. See Table 1 below:

Table 1: Habitat Suitability Index score for Pond 1 close to the site at Royston Farm.

Pond	Pond 1
SI1 - Location	1
SI2 - Pond area	0.2
SI3 - Pond drying	0.1
SI4 - Water quality	0.33
SI4 - Shade	0.3
SI6 - Fowl	1
SI7 - Fish	1
SI8 - Ponds	0.6
SI9 - Terr'l habitat	0.67
SI10 - Macrophytes	0.3
HSI	0.43

HSI Pond suitability <0.5 = poor 0.5 - 0.59 = below average 0.6 - 0.69 = average 0.7 - 0.79 = good> 0.8 = excellent

Reptiles

- 3.4.13 Habitats present were considered very low in suitability or potential for reptiles with little safe basking, foraging or breeding habitat present.
- 3.4.14 The survey was undertaken in suitable weather conditions for active reptiles. Reptiles were not discovered during the survey visit.

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Invertebrates

- 3.4.15 The main site area was considered low in suitability or potential for invertebrates of conservation concern with common and widespread habitats present. No significant deadwood habitat was present.
- 3.4.16 No notable invertebrates were discovered.

Other Protected, Priority or rare Species

3.4.17 No signs or evidence of any other protected or priority species were observed on the site, nor were there any suitable habitats for such.

4 DISCUSSION OF RISK AND LEGISLATION

4.1 Protected & Priority Species

Bats

- 4.1.1 Bats are protected under the Wildlife and Countryside Act 1981 as amended by the Countryside Rights of Way Act 2000 and under the Conservation of Habitats and Species Regulations 2017. Some bats are also UK priority species. A summary of the offences likely to be relevant to development are:
 - Intentionally or deliberately kill, injure or take a bat;
 - Intentionally or recklessly damage, destroy or obstruct access to any place that a bat uses for shelter or protection, whether bats are present or not;
 - Damage or destroy a breeding site or resting place of any bat;
 - Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection;
 - Deliberately disturb a bat anywhere.
- 4.1.2 Bats have been recorded locally and given the rural location may visit the site on occasions for foraging. Buildings and trees on the site were considered negligible in suitability or potential for roosting bats. No signs or evidence of bats were fund.
- 4.1.3 Therefore, further bat surveys or mitigation were considered unnecessary. However, to minimise any residual risk of impact to foraging bats, precautionary measures detailed later in the report should be followed.

Other Protected, Priority & Rare Mammals

- 4.1.4 The site was considered small in area and low in suitability or potential for any other protected, priority or rare species and no signs or evidence of such were discovered during the survey visit. Even still, it could not be discounted that the occasional hedgehog or possibly badger may cross the site.
- 4.1.5 Further surveys or mitigation for any other protected, priority or rare mammals were considered unnecessary. However, to minimise any residual risk of impact to hedgehogs and badgers, precautionary measures, detailed later in the report, should be followed.

Birds

- 4.1.6 Wild birds are protected under the Wildlife and Countryside Act 1981 and, with certain exceptions (e.g. pest species) in certain situations, it is an offence to intentionally:
 - Kill or injure any wild bird;
 - Take, damage or destroy the nest of any wild bird while it is in use or being built;
 - Take or destroy the egg of any wild bird.
- 4.1.7 Some bird species (such as barn owls) are also specially protected under Schedule 1 of the Wildlife and Countryside Act 1981 and others are UK priority species.
- 4.1.8 It was considered unlikely that the site would be of significant value to any notable foraging birds or nesting birds of any species.
- 4.1.9 Overall, it was considered unnecessary to undertake further bird surveys for rare or protected birds or provide mitigation for such species. However, to minimise any residual risk of impact to actively nesting birds, precautionary measures, detailed later in the report, should be followed.

Great Crested Newts & Other Amphibians

- 4.1.10 Great crested newts are protected under the Wildlife and Countryside Act 1981 as amended by the Countryside Rights of Way Act 2000, and the Conservation of Habitats and Species Regulations 2017. Great crested newts are also UK priority species. A summary of the offences likely to be relevant to development are:
 - Intentionally or deliberately capture or kill;
 - Intentionally injure;

- Deliberately disturb, or intentionally or recklessly disturb in a place of shelter or protection;
- Damage or destroy a breeding site or resting place;
- Intentionally or recklessly damage, destroy or obstruct access to a place used for shelter or protection.
- 4.1.11 Habitats proposed for impact were considered negligible in suitability or potential for great crested newts. The closest pond to the site was assessed as poor in suitability for great crested newts.
- 4.1.12 Overall, the risk of significant impact to great crested newts or any other amphibians was considered very low.
- 4.1.13 Further amphibian surveys or mitigation were considered unnecessary. However, to minimise any residual risk of impact, precautionary measures, detailed later in the report, should be followed.

Reptiles

- 4.1.14 Widespread reptile species including, grass snake, adder, slow worm and common lizard, are protected from intentional killing and injuring under the Wildlife and Countryside Act 1981. They are also UK priority species.
- 4.1.15 The site is small in area and very low in suitability for reptiles. No reptiles were discovered during the survey visit. Therefore, the risk of significant impact or harm was considered very low.
- 4.1.16 Further reptile surveys or mitigation were considered unnecessary.

Plants & Invertebrates

- 4.1.17 No rare, protected or priority plants were identified. No UK priority habitats are proposed for impact.
- 4.1.18 No Schedule 9 invasive plants were present within the construction zone.
- 4.1.19 Regarding invertebrates, habitats present were common, widespread and isolated from any habitat of high ecological value for invertebrates (such as woodland or species rich meadows etc.). The risk of presence of a significant assemblage of invertebrates of conservation concern was considered negligible.
- 4.1.20 Further invertebrate surveys or mitigation were considered unnecessary.

Other Protected & Priority species

4.1.21 No signs or evidence of other protected, priority or rare species were observed on the site and it was considered that there was a very low risk of such species occurring on the site or being impacted by the proposed development.

4.2 Other Issues

Sensitive Habitats

- 4.2.1 The site is a significant distance from any statutorily designated nature conservation sites. The site support common and widespread habitats low in ecological value.
- 4.2.2 The risk of a significant direct or indirect impact to any nature conservation sites was considered negligible.
- 4.2.3 Further surveys or mitigation for designated nature conservation sites or other sensitive habitats were considered unnecessary.

5 RECOMMENDATIONS

5.1 Precautionary Measures & Compensation

Bats

- 5.1.1 To minimise any residual risk of impact to bats, the following precautionary measures should be undertaken:
 - Any works to roofs should be undertaken by hand. If at any point bats or evidence of bats (droppings etc.) are discovered, works should stop and an ecologist called for advice;
 - Any new proposed external lighting should be minimised. Where external
 lighting is required, it should be warm white LED lamps (<3000k) with
 glass glazing, rather than plastic, as these produce the least amount of
 heat and UV light possible, minimising the attraction effects on insects and
 minimising disturbance to local bats;
 - Any external lighting proposed for the development should be aimed carefully, to minimise illumination of boundary habitats and avoid light spillage into the sky, or horizontally out from any buildings, by using hoods or directional lighting.

Birds

- 5.1.2 Tree removal should be undertaken outside of the main bird nesting season (March end of August) or the site should be surveyed for nesting birds, prior to vegetation reduction.
- 5.1.3 Should nesting birds be discovered the tree should be protected from harm/disturbance until the birds have finished nesting.

Hedgehogs, Badgers & Amphibians

- 5.1.4 The risk of hedgehogs, badgers or amphibians being significantly impacted by the development was very low/negligible, to minimise any residual risk of impact or harm or impact, the below recommendations should be followed:
 - Before construction commences, vegetation should be maintained short to prevent the site improving for wildlife before works commence;
 - During works waste materials should be removed off site immediately to prevent wildlife using the materials for shelter and being harmed by subsequent movement;
 - Construction materials should be stored on hardstanding or on pallets to prevent wildlife from sheltering in the materials and being harmed by movement of the materials;
 - No construction work at night when hedgehogs, badgers and amphibians are mostly active;
 - Any excavations for the development should be covered at night or should have a roughly sawn plank placed in them to facilitate escape, the plank should not be placed at more than 30° and must be at least 30cm in width;
 - If at any stage hedgehogs, badgers or amphibians are observed on the site, works should stop immediately, and the animal should be allowed to disperse of its own accord, or an ecologist should be contacted for advice.

5.2 Enhancements

- 5.2.1 Biodiversity enhancement is a requirement for all developments under the National Planning Policy Framework (NPPF, 2021). To provide such enhancement the below will be undertaken.
- 5.2.2 The addition of bat boxes and bird boxes on the newly converted building will increase the potential roosting and nesting sites for local bats and birds. Specifically, the following boxes should be used;

- 1 x Beaumaris Bat Box (or similar if out-of-stock);
- 1 x Vivara pro Sparrow nesting box (or similar if out-of-stock).
- 5.2.3 The boxes should be installed high (just below above 4m) and should be free from obstruction and light sources. The bat box should ideally be positioned facing a southerly aspect, while the bird box should be facing a northerly direction or otherwise be out of direct sunlight.
- 5.2.4 Wildlife boxes can be purchased on-line through suppliers such as The Wildlife Shop and NHBS.
- 5.2.5 Any new soft landscaping should include only native and/or wildlife attracting species. Prioritising fruit producing varieties is recommended. Further broadleaved native trees could be added to the site boundary to increase the size and variety of species present.

6 CONCLUSION

- 6.1 At the time of survey, the site supported common and widespread habitats. No signs or evidence of protected, priority or rare species were identified. The risk of significant impact to notable wildlife was considered very low/negligible.
- Further ecological surveys or mitigation were considered unnecessary. Recommendations for bats, hedgehogs, badgers, amphibians and birds are provided and should be followed accordingly.
- 6.3 With recommendations followed as described, the development could proceed with a minimal risk of harm impact to protected, priority or rare species or notable habitats.
- 6.4 With the biodiversity enhancements followed as described, the proposed development would be enhanced for the benefit of local wildlife in accordance with national planning policy.

7 REFERENCES

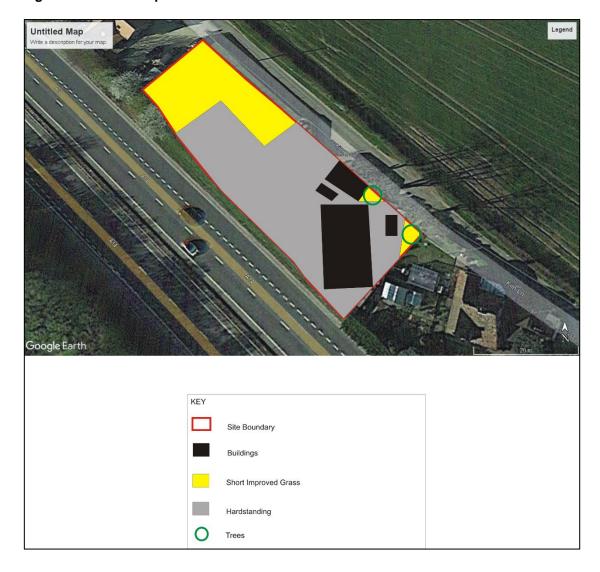
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8 APPENDICES

8.1 Appendix 1: Figures

Figure 1 - Habitat map of the site.



8.2 Appendix 2: Photographs

Photograph 1: Main site area including the three buildings proposed for works at Royston Farm.



Photograph by Roger Spring 2023

Photograph 2: Entrance to the site at Royston Farm.



Photograph 3: Main building at Royston Farm.



Photograph by Roger Spring 2023

Photograph 4: Timber buildings at Royston Farm.



Photograph 5: Tree on site at Royston Farm.



Photograph by Roger Spring 2023

Photograph 6: Remaining site at Royston Farm.



Photograph 7: Pond near the site at Royston Farm.

