

Preliminary Ecological Appraisal

of the land at

Southolt Hall Barn, Southolt,
Suffolk

Carried out for:

Mark Beckham
c/o Beech Architects
1st

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Executive summary

Overview

Abrehart Ecology Ltd was commissioned by Beech Architects on behalf of Mark Beckham , to carry out a Preliminary Ecological Appraisal (PEA) for the proposed barn conversion at Southolt Hall, Southolt, Suffolk.

The site is approximately 0.07 ha, comprising barns surrounded by grassland, hardstanding, and trees, within the grounds of Southolt Hall.

A preliminary ecological appraisal was carried out on the 8th December 2020 by Ali Killingsworth.

Results

The habitats recorded on and adjacent to the site included:

- Grassland;
- Buildings;
- Trees; and
- Hardstanding.

The habitats listed above, and features recorded within the site, provided potential habitat for bats, breeding birds, great crested newts, and reptiles.

Further surveys and precautionary measures during any proposed works are detailed in Section 4.

1. Background to Commission

- 1.1 Abrehart Ecology Ltd was commissioned by Beech Architects, on behalf of Mark Beckham, to carry out a Preliminary Ecological Appraisal (PEA) of a proposed barn conversion at Southolt Hall, Southolt, Suffolk, IP23 7TN (central grid reference TM 20502 70032; Fig. 1; hereafter referred to as the Site).
- 1.2 The survey was required to inform a planning application at the Site; the conversion of agricultural barns into a residential property was proposed.

Aims of Study

- 1.3 This report provides an ecological appraisal of the site following the completion of a desk study and site visit. The aim of this study was to:
- Provide a description of existing habitat types;
 - To determine the existence and location of any ecologically valuable areas;
 - To identify the potential (or actual) presence of protected and/or notable species;
 - To provide the legislative and/or policy protection afforded to any habitats present or any species assessed as likely to be associated with the site; and
 - To recommend any further ecological surveys considered necessary to inform mitigation requirements for the planning application within the Site.

Site Description

- 1.4 The Site is located at the southern end of an access track leading to Southolt Hall, north of the village of Southolt, Suffolk. It is approximately 0.07 ha in extent and is formed of an agricultural barn and stables, with planted trees, hardstanding yards and access tracks, and grassland surrounding it. The surrounding landscape is dominated by agricultural land, pockets of woodland, and scattered small villages (see Figure 1).

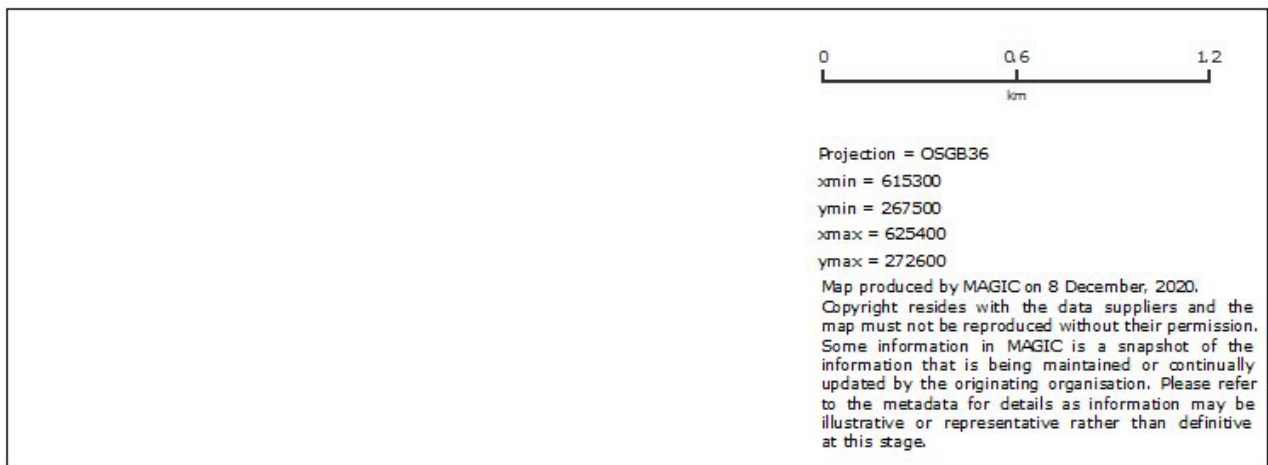


Figure 1. Site location

Relevant Legislation

- 1.5 Protected species, as referred to within this report, are taken to be those protected under European Legislation (Conservation of Habitats and Species Regulations 2010, as amended) and UK legislation (Wildlife and Countryside Act 1981; Protection of Badgers Act 1992); and those of principle importance in England as listed in Section 41 of the NERC Act (2006).
- 1.6 The National Planning Policy Framework (NPPF) 2012 places responsibility on Local Planning Authorities (LPAs) to aim to conserve and enhance biodiversity in and around developments. Section 40 of the NERC Act requires every public body to “have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”. Biodiversity, as covered by the Section 40 duty, is not confined to habitats and species of principal importance but refers to all species and habitats. However, the expectation is that public bodies would refer to the Section 41 list (of species and habitats) through compliance with the Section 40 duty.
- 1.7 Appendix V details legislation which protects species and groups relevant to the site (bats, reptiles, birds, and great crested newts).

2. Methods

Desk Study

- 2.1 Data obtained from the Suffolk Biodiversity Information Service (SBIS) were used to conduct a standard data search ¹ for any information regarding statutory and non-statutory sites and records of protected and priority species within a 2km radius of the Site. The data were received on the 10th December 2020.

Field Survey

- 2.2 A Preliminary Ecological Appraisal was carried out by Ali Killingsworth BSc (Hons) MSc GradCIEEM (Natural England Great Crested Newt Survey Class Licence WML-CL08 and Natural England Bat Survey Class Licence WML-CL17), on the 8th November 2020 in accordance with standard best practice methodology for Phase 1 Habitat Surveys set out by the JNCC (JNCC 2010). Weather conditions during the survey were 30% cloud cover, light air (Beaufort Scale 0-1), and a temperature of 0°C, with very good visibility. The Site was traversed slowly by the surveyor, mapping habitats and making notes on dominant flora and fauna. The survey was extended to identify the presence of invasive species and include an assessment of the potential for the habitats in and around the site to support protected species.

Survey Limitations

- 2.3 There were no significant limitations to the survey.
- 2.4 All areas of the Site were accessible at the time of survey, and although the survey was carried out outside the optimal months for Preliminary Ecological Appraisals/botanical assessments, this was not considered a significant constraint to the survey due to the habitat types present.

3. Results

3.1 The following section details the results of the desk study and field survey. Consideration has been given to species likely to be found in the habitats recorded on site and potential impacts to designated sites within the local area.

Data Search (for maps see Appendix II)

3.2 The following section details the results of the desk study and field survey. Consideration has been given to species likely to be found in the habitats recorded on site and potential impacts to designated sites within the local area. Several protected species have been ‘scoped out’ of the report, as the Site was not considered suitable to support them. This includes otter, water voles, and hazel dormice.

Data Search

3.3 There were no statutory designated sites within 2km of the Site.

3.4 There were six County Wildlife Sites within 2km of the proposed development site, these are:

- Athelington Wood – A small ancient woodland comprised of neglected hornbeam coppice with a dense shrub layer. It has suffered significant storm damage and fallen wood provides habitat for invertebrates. The wood has a depauperate ground flora, with occasional stands of dog’s mercury and nettle.
- Little Wood – This is enclosed on three sides by boundary banks of medieval origin. The tree canopy is composed predominantly of ash and maple coppice with abundant oak standards. A notable feature is a large pond which supports marginal wetland plants.
- Old Rectory Meadow – A small meadow enclosed by hedgerows and scattered tall trees. It supports a species-diverse flora, including species typically found in unimproved grassland on chalky boulder clay soils. It is managed by annual cutting for a hay crop.
- RNR 193 – A roadside nature reserve supporting sulphur clover.
- RNR 199 – A roadside nature reserve supporting sulphur clover.
- Southolt Churchyard – A refuge for plants and animals in an extensively farmed landscape. Some of the grassland is managed by regular mowing, with the remainder managed as a hay meadow.

3.5 There were no European Conservation Site within 7km of the Site.

3.6 The data search showed records of protected species in the area, which could potentially occur on the site. These are detailed within the relevant sections below.

Field Survey Results

- 3.7 The Site comprised a block of agricultural barns/structures at Southolt Hall, adjacent to a hardstanding yard, storage sheds, a vegetable garden, and sheep-grazed fields.
- 3.8 The main structure within the Site boundary was a wooden-clad barn that had a pitched pantile roof. Although the ridge tiles appeared well-sealed and in good condition, several tiles (lined with felt) were damaged, slipped, or lifted. Further points of ingress included missing windows, open sided sections to the south, and gaps in timber cladding. To the north was a single storey entrance area, which had a sloped roof and large barn doors. Surrounding this entrance was a small area of concrete hardstanding which was predominantly covered by moss with some bramble (*Rubus fruticosus* agg.) and tall ruderal species. Internally, the building was split into distinct sections: the main barn, offices, upper mezzanine level, and stable. Throughout the space were rough exposed beams and exposed concrete or brick flooring. Several of the beams were damaged or showing signs of rot and there were numerous crevices and cavities created by beam joins. Bird nests, droppings, broken eggs, and feathers were found in all sections of the barn. These were from woodpigeon (*Columba palumbus*), swallows (*Hirundo rustica*), jackdaw (*Corvus monedula*) – pellets recorded on the upper mezzanine level -, and blackbird (*Turdus merula*). The single storey entrance area contained an enclosed room that had hay on the floor and appeared to be used for stabling livestock. Further swallow nests were recorded within this stable/room.
- 3.9 Attached to the southern aspect of the main barn were two stable structures. These were connected by a covered central courtyard. The stables were of brick construction with a single skin corrugated metal and clear plastic roof. The wooden beams within these structures were more modern and smaller than those found within the main barn, although several older, larger beams were noted. Throughout the structures and yard, the floor was concrete with minimal vegetation regrowth – limited to mosses, ferns, and ruderal species.
- 3.10 Surrounding the barns was a small area of amenity grassland. This was managed to a sward height of <5cm and contained typical lawn species and regular, although non-diverse, forbs. In particular, these were dominated by creeping buttercup (*Ranunculus repens*), dove's-foot crane's-bill (*Geranium molle*), dandelion (*Taraxacum* agg.), daisy (*Bellis perennis*), and mosses. There were four planted trees (cherry (*Prunus avium*)) to the east and south-east of the barns. Ruderal species, including stinging nettle (*Urtica dioica*) and cleavers (*Galium aparine*) were encroaching into the grassland from the neighbouring grazed fields and there was a patch of bee orchids (*Ophrys apifera*) in the north-east corner of the grassland.
- 3.11 There were three ponds within the grounds of Southolt Hall. These were surveyed for their potential to support great crested newts (*Triturus cristatus*) and the full descriptions can be found in the Appendix.
- 3.12 A map showing the location of the buildings on Site can be seen in Appendix II.

4. Protected and Priority Species Within the Site

Flora

- 4.1 The desk study highlighted five species of vulnerable plant (sulphur clover (*Trifolium ochroleucon*), henbane (*Hyoscyamus niger*), grape-hyacinth (*Muscari neglectum*), chicory (*Cichorium intybus*), and dwarf spurge (*Euphorbia exigua*)) and one critically endangered species – shepherd’s-needle (*Scandix pecten-veneris*) – that is also a species of principal importance in England. A single Wildlife and Countryside Act Schedule 8 plant, bluebell (*Hyacinthoides non-scripta*), has been recorded within 2km of the Site. The amenity grassland within the Site was species-poor and often dominated by two or three common species. These species, and others returned with the data search, were unlikely to be found in habitats within the Site, as they are predominantly recorded in species-rich meadows, woodlands, on heathland, and arable fields.
- 4.2 No uncommon, rare, or protected plant species were recorded during the survey.

Badgers

- 4.3 The site was visually searched for evidence of the presence of badgers (*Meles meles*), including setts, footprints, latrines, and snuffle marks.
- 4.4 There were no records of badgers within 2km of the Site.
- 4.5 Habitats within, and adjacent to, the Site were suitable for foraging badgers (grassland); however, there was no habitat within, or directly adjacent to, the Site that was considered appropriate for sett creation.
- 4.6 No evidence of badgers was recorded during the survey – evidence of large mammals was limited to rabbits (*Oryctolagus cuniculus*).

Bats

- 4.7 Trees within/adjacent to the Site were semi-mature planted specimens. These did not have bat roost potential.
- 4.8 There were numerous points of ingress into the main barn structure and a high number of potential roost features – including joists/beams, voids created by internal boarding, and damaged roof lining. In addition to these, there were roosting opportunities between the pantile roofing and the felt lining, accessible from external areas. This building had high bat roost potential.
- 4.9 The stables joining to the southern aspect of the barn were very light, draughty, and constructed of newer wooden beams. However, damage to brickwork created limited opportunities for crevice roosting species. These structures were considered to have low bat roost potential.
- 4.10 The trees, open grassland habitats surrounding the Site, and open water (nearby large pond/moat and smaller ponds) provided excellent quality foraging and commuting habitat for bats.
- 4.11 The data search returned records of common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), *Pipistrellus* sp., Natterer’s (*Myotis nattereri*), *Myotis* sp., and brown long-eared bats (*Plecotus auritus*) from 2004 to 2018.

Birds

- 4.12 Habitats within the proposed construction zone were suitable for a range of bird species. The barn and stables had ledges and beams that could support a variety of nest types, and nests of swallows, woodpigeons, and blackbird were noted. Additionally, the upper mezzanine level had evidence of use by jackdaws, although no nests were found.
- 4.13 The planted trees could support nesting birds, although no disused nests were observed during the survey.
- 4.14 Birds recorded during the survey were: green woodpecker (*Picus viridis*), blackbird (*Turdus merula*), pheasant (*Phasianus colchicus*), buzzard (*Buteo buteo*), dunnoek (*Prunella modularis*), redwing (*Turdus iliacus*), robin (*Erithacus rubecula*), and reed bunting (*Emberiza schoeniclus*).
- 4.15 Habitats within the Site itself were not considered suitable for ground nesting birds.
- 4.16 The desk study contained records of the above species, plus additional species of interest that have been recorded within 2km of the Site These have been detailed in Appendix IV, along with their relevant level of protection, and most recent records within 2km.

Great Crested Newts

- 4.17 The habitats recorded throughout Site were suitable to support amphibians, including great crested newts (GCN), during their terrestrial phase – as both commuting habitat and shelter and hibernating opportunities. Within the barns were damaged brickwork, voids, and damaged flooring that could support and conceal sheltering newts.
- 4.18 In addition to this, there were potential breeding opportunities surrounding the Site. The large moat/pond, and smaller ponds had shallow areas and potential displaying and egg-laying habitats for great crested newts. Although the larger pond regularly supported ducks and geese and contains fish, the smaller ponds were more suitable and dense reed growth within the moat provided shelter from these species.
- 4.19 Full HSI results and pond descriptions can be found in the Appendix; however, the ponds were found to be of Poor, Below Average, and Good quality habitat for breeding great crested newts.
- 4.20 A single record of a great crested newt from approximately 1.6km north-east of the Site from 2007.

Hedgehogs

- 4.21 Short grassland and bare earth within and adjacent to the Site boundary provided potential foraging habitat. Fallen deciduous leaves provided nest building material and the long hedgerow leading to the Site from the road provided habitat for sheltering or hibernating hedgehogs (*Erinaceus europaeus*). The barns themselves could also be used by sheltering hedgehogs.
- 4.22 Although no evidence of hedgehogs was recorded during the survey, the data search returned 28 records of hedgehog within 2km of the Site from 2004 to 2020. The records were from Athelington, Horham, Redlingfield, Southolt, Wilby, and Worlingworth.

Reptiles

- 4.23 Although foraging opportunities were limited, the barns and surrounding grassland provided potential commuting, sheltering, and hibernating habitat. As with GCN detailed above, the niches

within the main barn could support reptile species.

4.24 The pond, moat, and ditch provided potential foraging habitat for grass snakes (*Natrix natrix*). The reedbed and scrub/trees surrounding the ponds also offered sheltering opportunities.

4.25 There was a single record of a grass snake from 2010 in Horham.

Invertebrates

4.26 Within the Site, habitats such as grassland were very limited and so the Site was considered unsuitable for supporting assemblages of common and rare/protected terrestrial invertebrates.

4.27 The barns were also considered sub-optimal habitat for invertebrates.

4.28 The ponds near to the Site were suitable for aquatic; however, these habitats will not be impacted by proposed works.

4.29 The data search returned records of rare solitary bees, 5-spot ladybird (*Coccinella quinquepunctata*) and records of five species of moth that are listed as SPI in England.

Other Protected Species

4.30 The Site provided limited habitat for sheltering and commuting brown hare. The mosaic of grassland, arable fields, and woodland blocks within the wider landscape provided year-round habitat for this species.

5. Potential Impacts and Recommendations

Statutory Designated Areas

- 5.1 The proposals are to convert the barn into a residential dwelling. This will not result in a significant increase in local land use pressure (by vehicles or pedestrians) or to the visitor numbers to the designated sites (SSSIs) in the wider landscape or to the CWS sites within 2km of the Site.

Flora and Habitats

- 5.2 The proposed development will result in the loss of a small area of amenity grassland and conversion of an agricultural barns and associated stables. Although none of these habitats are listed within Section 41 of the NERC Act 2006 as being of principal importance to the conservation of biodiversity within the UK, they do provide opportunities for a range of protected species (discussed below).
- 5.3 **No further botanical survey is necessary; however, any trees retained through the development should be suitably protected from harm following guidance set out in BS5837 (2012).**

Protected Species

Badgers

- 5.4 There was no evidence of badgers recorded within the Site boundary. **No further survey is necessary, however, as the Site provides suitable foraging/commuting habitat for mammals, it is recommended that construction works implement several precautionary measures, including the following:**
- Covering excavations overnight to prevent animals falling in, or the provision of an escape ramp;
 - Safe storage of materials that may harm animals; and
 - Security lighting to be set on short timers to avoid disturbing nocturnal animals using the Site and immediate surrounding area.

Bats

- 5.5 The main barn structure was considered to have **high bat roost potential**, due to high numbers of potential roost features and ingress points.
- 5.6 Trees within the Site boundary were semi-mature and had no bat roost potential.
- 5.7 **It is recommended that further emergence/return to roost surveys are carried out. This should include three survey visits (between May and October) designed or led by a bat-licensed ecologist and carried out to BCT Guidelines.**
- 5.8 The Site provided suitable foraging habitat for bats, therefore sensitive lighting should be used throughout the development and should follow guidance provided by the Bat Conservation Trust (Bats and Lighting in the UK, 2009), to ensure foraging and commuting bats using adjacent habitats are not negatively impacted. Lighting measures should be applied to new lighting provided as part of the development and temporary security lighting used during the construction phase. This could include low pressure sodium lamps, with hoods, cowls or shields, to prevent light spillage.

- 5.9 The incorporation of night-scented flowers into landscape designs would help provide foraging opportunities for bats post-development. A comprehensive list of species which are beneficial to bats can be found on the RHS website (<https://www.rhs.org.uk/advice/pdfs/plants-for-bats.pdf>) – native species should be used wherever possible.

Birds

- 5.10 A number of species with the potential to nest within, or near to, the Site boundary were highlighted within the desk study (see Appendices III and IV) and good numbers of nests were recorded within the barn – from swallows, woodpigeons, and blackbirds.
- 5.11 **To prevent infringing legislation which protects all nesting birds, it is recommended that any vegetation clearance is carried out outside the breeding bird season (which runs from March to September) or following a nesting bird survey by a suitably experienced ecologist.**
- 5.12 **It is also recommended that proposals include nest boxes and features suitable for swallows (such as nest cups in eaves) to mitigate for the loss in nesting habitat.**

Great Crested Newts

- 5.13 The habitats within the Site provide habitat for amphibians during terrestrial phases (and potential breeding ponds in the local landscape) and there was a record of a great crested newt returned in the data search.
- 5.14 The habitats within the Site provide habitat for amphibians during terrestrial phases and there was a recording of a great crested newt returned in the data search. However, the ponds (breeding habitat) within the surrounding landscape will not be impacted by works and the record was from approximately 700m north-east of the Site. **Therefore, it is recommended that Environmental DNA (eDNA) sampling is carried out in ponds within 250m of the Site. Should the results be negative, then it is considered that works can follow a Reasonable Avoidance Measures (RAMs) method statement produced by an ecologist which would have minimised the chance of harming animals during works. Should the ponds show presence of GCN, then full surveys would be required to inform a Natural England Mitigation Licence application.**

Hedgehogs

- 5.15 **No further survey is considered necessary.**
- 5.16 If the proposals involve fencing, this should be designed to allow movement of hedgehogs throughout the Site post development. This can be achieved through the incorporation of gaps at the base of any solid fencing, of at least 13cm x 13cm.

Reptiles

- 5.17 The proposals are likely to include the removal of suitable reptile habitat. However, this is limited in extent and there are limited records of common or widespread reptile species within 2km of the proposed development. **No further survey is necessary.**
- 5.18 **Although the risk to reptiles is minimal, it is recommended that the removal of grassland and building habitats is undertaken with an ecologist in attendance – to safely move any animals that may be using these habitats. It should be noted that vegetation removal and**

destruction of potential shelter habitat should only take place alongside habitat removal works for GCN, detailed above.

Invertebrates

- 5.19 **As the proposed construction zone (grassland and lake edge) was not considered suitable for the rare/protected invertebrates that were highlighted within the data search, no further survey is recommended.** The Site lacked habitats, vegetation structure, and potential food plants necessary to support these species. Furthermore, the lack of habitat structure also reduced the likelihood of the Site supporting assemblages of common invertebrates.
- 5.20 Habitats near to the construction zone (ponds) were suitable for supporting aquatic invertebrates; however, these habitats will not be impacted by proposals.

Other Protected Species

- 5.21 Due to the limited extent of the Site, and the abundance of suitable habitat for brown hare in the wider landscape, it was considered unlikely that this species would be significantly impacted by the loss of small area of ruderal vegetation or bare ground at the Site.

6. Conclusions

- 6.1 The preliminary ecological appraisal found the Site contained habitats suitable for supporting several protected species – bats, birds, great crested newts, hedgehogs, and reptiles. The following recommendations are made to minimise the risk of harm to individual animals:
- **Environmental DNA surveys of ponds within 250m of the Site.** Should negative results be returned then works can follow a Reasonable Avoidance Measures method statement, to prevent harm to individual amphibians or reptiles during works.
 - **Emergence / return to roost bat surveys (to BCT Guidelines),** to ascertain use of the structures by roosting bats.
 - **Sensitive lighting measures for bats.**
 - Covering of excavations and/or provision of exit ramps is recommended during works to prevent harm to mammals.
 - To prevent infringing legislation which protects all nesting birds, it is recommended that any building or vegetation clearance (including grassland, hedgerow or trees) is carried out outside the breeding bird season (which runs from March to September) or following a nesting bird survey by a suitably experienced ecologist.
 - The incorporation of bird nest boxes and features for swallows would mitigate for the loss of existing nesting habitat.
- 6.2 It is considered that there will be no significant long-term impacts to the conservation status of protected species in the area, if the proposed development follows precautionary methodologies and recommendations for further surveys set out within this report, and any mitigation measures suggested within subsequent protected species reports.
- 6.3 The incorporation of enhancement features, such as wildlife friendly landscaping/planting, bat and bird boxes and hedgehog friendly fencing, (as described in Section 5) will ensure the site remains suitable for a range of wildlife post-development.

7. References

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- <http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx>

Appendix I: Site Photos



Grassland



Hardstanding yards



Southern aspect of the barn complex



Eastern aspect of the complex



Northern aspect of the complex



Large pond/moat (Pond 1)



Pond 3



Pond 2



Hardstanding adjacent to the northern aspect of the complex



Internal areas of the main barn



Internal areas of the main barn



Internal areas of the main barn



Within the stables



Damaged brickwork in the stables



Swallow nest



Hay inside the main barn



Jackdaw pellets on the mezzanine level



Bird nests in the main barn

Appendix II: Species Lists

Plants

Species

Asplenium scolopendrium
Bellis perennis
Cerastium fontanum
Cirsium arvense
Cirsium vulgare
Epilobium sp.
Galium aparine
Geranium molle
Hedera helix
Hypochaeris radicata
Lolium perenne
Ophrys apifera
Prunus avium
Ranunculus repens
Rubus fruticosus agg.
Sonchus sp.
Stellaria media
Taraxacum agg.
Urtica dioica

Birds

Species Name	Common Name	Notes
<i>Buteo buteo</i>	Buzzard	Using adjacent habitats.
<i>Corvus monedula</i>	Jackdaw	Evidence of use of species in barn.
<i>Emberiza schoeniclus</i>	Reed bunting	Using adjacent habitats.
<i>Erithacus rubecula</i>	Robin	Using adjacent habitats.
<i>Hirundo rustica</i>	Swallow	Evidence of use of species in barn.
<i>Phasianus colchicus</i>	Pheasant	Using adjacent habitats.
<i>Picus viridis</i>	Green woodpecker	Heard in nearby woodland.
<i>Turdus iliacus</i>	Redwing	Using adjacent fields.
<i>Turdus merula</i>	Blackbird	Evidence of use of species in barn and using adjacent habitats.

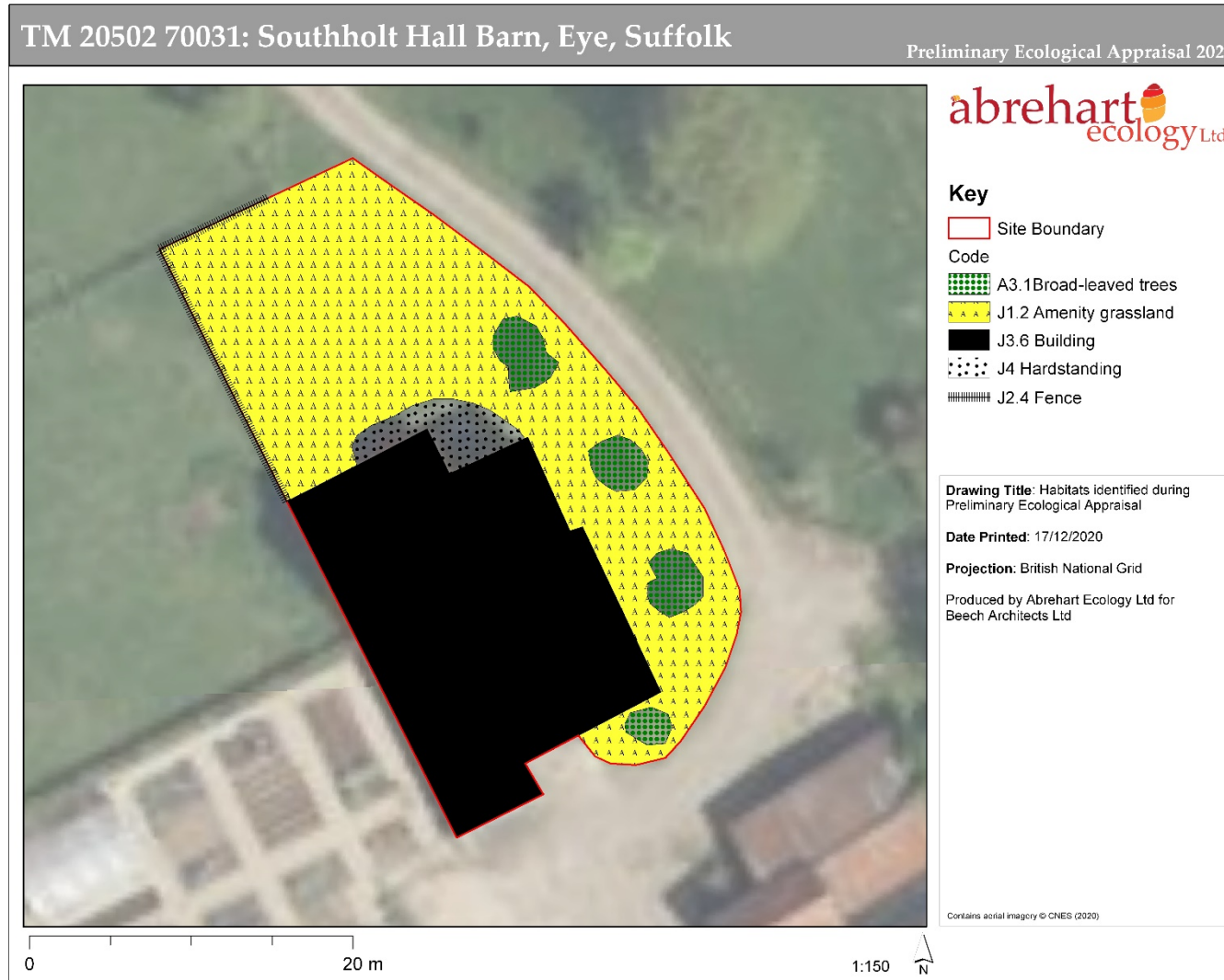
Appendix III: Site Pond Descriptions and HSI Results

	Pond 1		Pond 2		Pond 3	
	Field Score	SI Value	Field Score	SI Value	Field Score	SI Value
Location	A	1	A	1	A	1
Pond area (m ²)	5100	0.8	300	0.6	150	0.3
Pond permanence	Never dries	0.9	Never dries	0.9	Dries annually	0.1
Water quality	Moderate	0.67	Moderate	0.67	Poor	0.33
Shade	0-60%	1	76-80%	0.6	76-80%	0.6
Fowl	Major	0.01	Absent	1	Absent	1
Fish	Major	0.01	Possible	0.7	Absent	1
Pond density	>12	1	>12	1	>12	1
Terrestrial Habitat	Moderate	0.67	Moderate	0.67	Moderate	0.67
Macrophyte cover	6-10%	0.4	6-10%	0.4	<1%	0.3
HSI value	0.3245		0.7229		0.5102	
Pond Suitability	Poor		Good		Below Average	

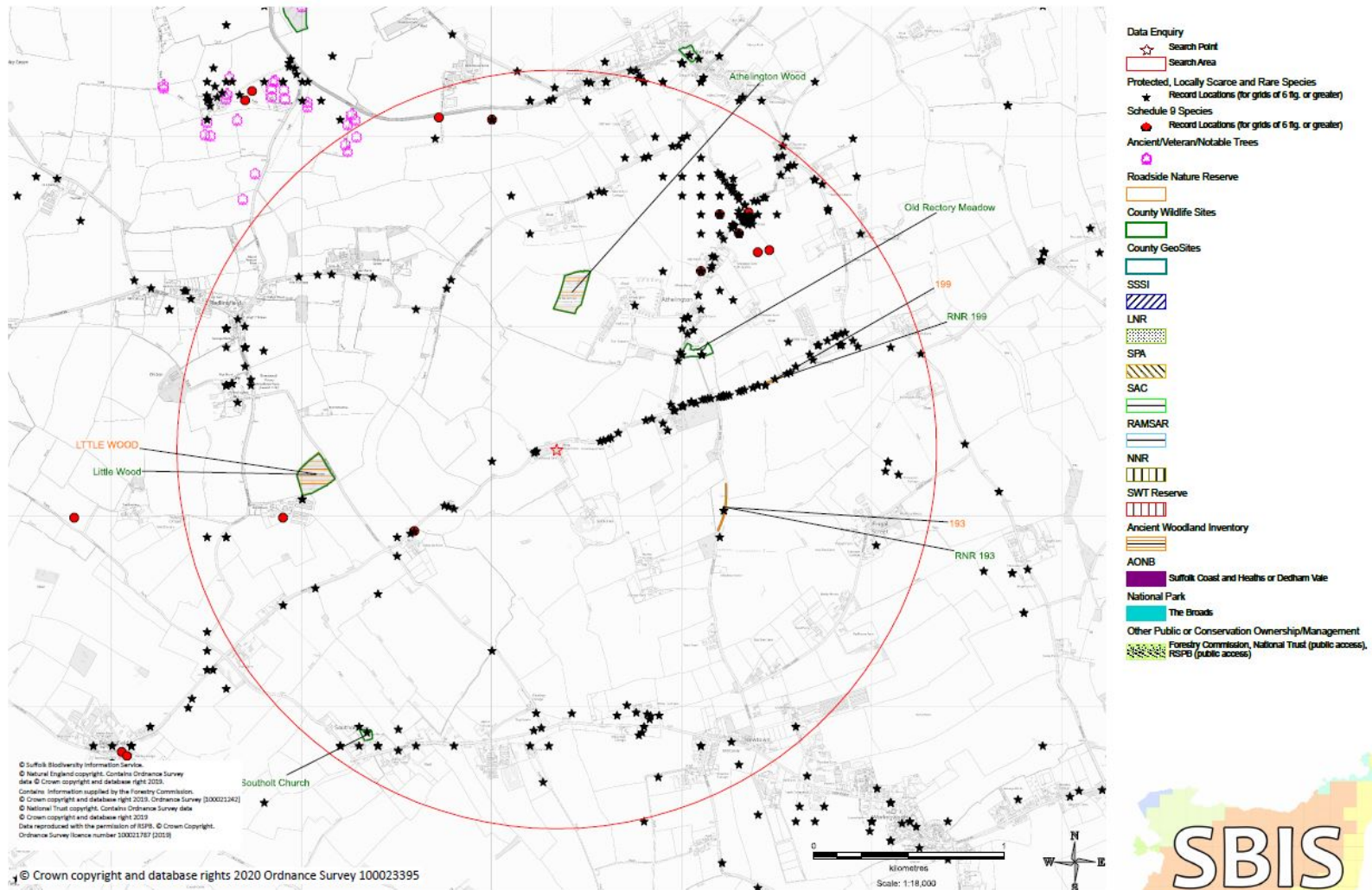
Pond 1	A very large pond (or moat) in the grounds of Southolt Hall. This was frozen at the time of survey, which reduced opportunities to observe aquatic macrophytes. There were two areas of reed (<i>Phragmites australis</i>) growth, providing potential cover for sheltering amphibians and nesting birds, and a reed bunting was seen using the reedbed south of Southolt Hall. The banks and margins supported smaller areas of emergent vegetation (hard rush (<i>Juncus inflexus</i>) and branched bur-reed (<i>Sparganium erectum</i>)). Marginal areas were shallow, providing potential display habitat for breeding GCN; however, the dominant vegetation recorded was filamentous algae – although macrophytes may have died back in winter months. Anecdotal evidence suggested that the pond contained good numbers of fish and is regularly used by wildfowl.
Pond 2	A pond adjacent to Southolt Hall, this was heavily shaded by bankside trees bamboo growth, scrub, and adjacent buildings. Aquatic macrophytes included celery-leaved buttercup (<i>Ranunculus sceleratus</i>); however, much of the water was obscured by surface ice. A moorhen was seen using the pond, but no ducks were recorded.
Pond 3	Located between two fields, this pond was surrounded by, and shaded by, scrub and broadleaf trees. It was connected to a ditch on its western margin, although this was dry at the time of survey.

Appendix IV: Figures

PEA Map



County Wildlife Sites within 2km of the Site



Abrehart Ecology (Southolt Hall Barn, Eye IP23 7TN TM2034170360) 2km Data Enquiry

Suffolk Biodiversity Information Service
Date: 10/12/2020 | Drawn by: Jane Mason

Appendix V: Desk Study

WCA Sch. 1, BoCC Red Listed and Priority (BAP) bird species records within 2km of the Site

<i>Species</i>	<i>Status</i>	<i>Most Recent Record</i>
Greylag goose	WCA 1(ii)	2011
Grey Partridge	S41; BoCC Red	2015
Red Kite	WCA 1	2019
Marsh Harrier	WCA 1	2008
Lapwing	S41; BoCC Red	2015
Green Sandpiper	WCA 1	2015
Herring Gull	S41; BoCC Red; LBAP	2010
Turtle Dove	S41; BoCC Red	2016
Cuckoo	S41; BoCC Red; LBAP	2016
Barn Owl	WCA 1	2020
Swift	Suffolk Priority Species	2016
Kingfisher	WCA 1	2017
Skylark	S41; BoCC Red	2020
Grey Wagtail	BoCC Red	2017
Grasshopper Warbler	S41; BoCC Red	2018
Dunnock	S41	2015
Nightingale	BoCC Red	2016
Fieldfare	WCA 1; BoCC Red	2016
Song Thrush	S41; BoCC Red	2016
Redwing	WCA 1; BoCC Red	2015
Mistle Thrush	BoCC Red	2016
Spotted Flycatcher	S41; BoCC Red	2016
Lesser Spotted Woodpecker	S41; BoCC Red	2017

Hoopoe	WCA 1	2015
Marsh Tit	S41; BoCC Red	2010
Common Firecrest	WCA 1	2016
Starling	S41; BoCC Red	2015
House Sparrow	S41; BoCC Red	2016
Tree Sparrow	S41; BoCC Red	2015
Lesser Redpoll	S41; BoCC Red	2015
Linnet	S41; BoCC Red	2018
Bullfinch	S41	2016
Yellowhammer	S41; BoCC Red	2019
Reed Bunting	S41	2014

Appendix VI: Relevant Protected Species Legislation

Species	Legislation	Protection
Bats	<ul style="list-style-type: none"> ▪ Conservation of Habitats and Species Regulations (2010) (as amended) ▪ Wildlife and Countryside Act (WCA) (1981), Schedule 5 (as amended) ▪ Wild Mammals Act (1996) 	<p>It is an offence to:</p> <ul style="list-style-type: none"> ▪ Intentionally kill, injure or take any bat ▪ Intentionally or recklessly disturb a bat ▪ Intentionally or recklessly damage, destroy or obstruct access to a bat roost
Great Crested Newts	<ul style="list-style-type: none"> ▪ Conservation of Habitats and Species Regulations (2010) (as amended) ▪ Wildlife and Countryside Act (WCA) (1981), Schedule 5 (as amended) 	<p>It is an offence to:</p> <ul style="list-style-type: none"> ▪ Intentionally kill, injure or take a great crested newt ▪ Intentionally or recklessly disturb a great crested newt ▪ Intentionally or recklessly damage, destroy or obstruct access to any place used by a great crested newt for shelter or protection
Birds	<ul style="list-style-type: none"> ▪ Wildlife and Countryside Act (WCA) (1981 (as amended) 	<p>It is an offence to:</p> <ul style="list-style-type: none"> ▪ Intentionally kill, injure or take any wild bird ▪ Intentionally take, damage or destroy nests in use or being built ▪ Intentionally take, damage or destroy eggs <p>Species listed on Schedule 1 of the WCA (1981) are afforded additional protection, making it an offence to intentionally or recklessly disturb such species at, on or near an active nest</p>