
Preliminary Ecological Appraisal

The Old Rectory, Felsham

for

Chris Pugh

5 May 2023



Client

Chris Pugh

Planning authority

Mid Suffolk District Council

Time limit of reliance

Please note that the reported surveys were conducted on the date(s) stated in the report and that it represents site conditions at the time of the visit. The findings and recommended mitigation are based on these conditions. If site conditions change materially after the site survey, the original report cannot be relied upon and will need to be updated. Ecological reports and surveys can typically be relied on for 18 to 24 months from the date of survey.

Surveys supporting European Protected Species Mitigation Licence applications must be within the current or most recent survey season for bats (May to September), or within two survey seasons for great crested newts (March to June).

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Signed disclosure

The information, data, advice and opinions provided in this report which I have provided is true and has been prepared in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. I confirm that the opinions expressed are my true and professional bona fide opinions.

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SUMMARY

- Greenlight Environmental Consultancy Ltd. has been commissioned to carry out a Preliminary Ecological Appraisal for a proposed development at The Old Rectory, Church Road, Felsham, Bury St Edmunds, Suffolk, IP30 0PN (grid reference: TL 94921 57037).
- This report outlines the habitat features on site, the likelihood of protected species being present and any potential effects of the proposed development on such species.
- The ecology report is required in support of a planning application for the demolition of the existing pool house and greenhouse, and relocation of the existing tennis court.
- The survey and assessment were completed by independent, qualified and experienced ecologists with Natural England survey licences for the relevant protected species.
- The findings of the assessment are that the habitats in the survey areas are of **low** ecological value and that there are no significant ecological constraints that would prevent the proposed works.
- **Further surveys/licences are required for great crested newts and bats prior to works commencing to inform an ecological impact assessment and appropriate mitigation strategy, or for great crested newts to offset any adverse impacts via financial contributions.**
- If the following mitigation and enhancements are incorporated into the proposed layout, there will be a net gain for biodiversity, as is encouraged by the National Planning Policy Framework.

Protected habitats/species	Status	Potential effect	Recommended mitigation and enhancements
Protected sites	Two statutory and six non-statutory protected sites within 2km.	No significant impacts on protected sites and their qualifying features.	None required.
Protected habitats and habitats subject to conservation designations	Modified grassland and hedgerow (Priority Habitat) will be removed as part of the proposed works.	Low scale of habitat loss predicted for wildlife.	<u>Mitigation</u> Soft landscaping scheme to include the planting of new native species-rich hedgerows and trees around the site, infilling of existing hedgerows, and the planting/management of grassland meadow. Construction work to be carried out in accordance with BSI (2012), BS 5837:2012, to protect trees and their root protection areas.
Bats	Moderate bat roosting potential in building one (pool house). Negligible bat roosting potential in building two (greenhouse).	Potential disturbance of bat roosts if present in building. Low scale loss and potential light disturbance of commuting and	<u>Further surveys required</u> At least two activity surveys to be undertaken on building one (pool house) between May-September, with one conducted between May-August. The outcome of the surveys will inform a detailed mitigation strategy and

Protected habitats/species	Status	Potential effect	Recommended mitigation and enhancements
	Low value commuting and foraging habitat on site.	foraging habitats on site.	whether an EPS Mitigation Licence will be required from Natural England. <u>Mitigation</u> Any lighting schemes will comply with Bat Conservation Trust and CIE 150:2003 guidance.
Breeding birds	Nesting habitats for hedgerow, tree and building nesting birds present, including potential breeding habitat for Red and Amber listed species. No suitable barn owl foraging habitat in the survey areas.	Low scale loss of nesting habitat on site. Potential disturbance to breeding birds.	<u>Mitigation</u> Works to any hedgerow, trees and buildings on site to be conducted outside bird nesting season or under watching brief of ecologist if during nesting season. <u>Enhancement</u> Installation of two small bird boxes installed on suitable trees.
Great crested newts	Suboptimal terrestrial habitats on site. Six ponds within 250m of the site, three assessed as poor to average suitability and three could not be accessed for detailed assessment. Site falls within Amber risk zone for district level licensing. Nine GCN records within 2km.	Potential harm to GCN if present on site during works. No impacts on potential GCN aquatic habitat.	<u>Further steps required</u> This can be in the form of either: <ul style="list-style-type: none"> • Further GCN surveys (presence/likely absence surveys conducted between mid-March and mid-June, or eDNA surveys conducted between mid-April and June). The outcome of the surveys will inform a detailed mitigation strategy and whether an EPS Mitigation Licence will be required from Natural England. • Applying to join a District Level Licensing scheme to determine the required level of financial contribution to GCN mitigation, which can be completed at any time of year.
Hazel dormice	Habitats in the survey areas suboptimal, but ecologically separated from nearby woodland. 14 dormouse records within 2km.	No impacts predicted.	None required.
Other animals	N/A	Potential harm to animals.	<u>Mitigation</u> If fencing is required, this will be porous and provide openings for hedgehogs. Rough sawn planks will be placed inside any open excavations. Construction materials will be stored off the ground on pallets and waste materials in skips.

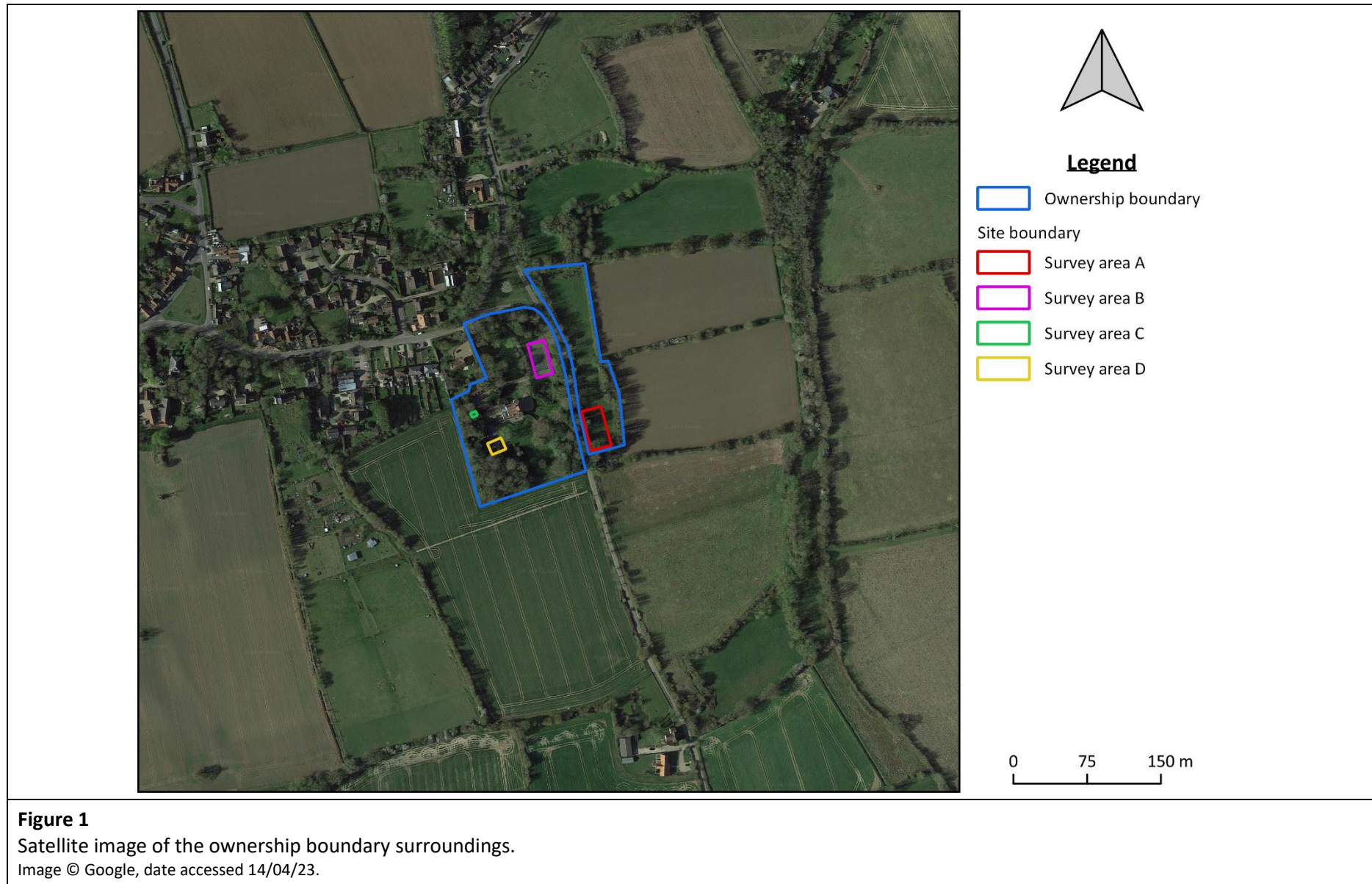
1. METHOD

- 1.1. A walkover of the survey areas was conducted on 14th April 2023 by Ebonie Lambo-Hills – an independent, qualified and experienced ecologist. Survey conditions were as follows: 11°C, 14mph wind, sunny intervals and dry.
- 1.2. All survey methods were carried out in accordance with the most up to date good practice guidance for the relevant protected species. Please refer to Appendix A for the full methodology and species breakdown.
- 1.3. The habitats on and directly adjacent to the survey areas were considered unsuitable for the following protected species, with no evidence or signs of use observed. No further surveys or mitigation for these species are detailed in this report:
 - Water vole *Arvicola amphibius*
 - Otter *Lutra lutra*
 - White-clawed crayfish *Austropotamobius pallipes*
 - Reptiles (slow-worm *Anguis fragilis*, common lizard *Zootoca vivipara*, grass snake *Natrix helvetica* and adder *Vipera berus*)
 - Badger *Meles meles* (setts)
 - Natterjack toad *Epidalea calamita*

2. SITE CONTEXT

Location

- 2.1. The general location of the ownership boundary is shown in Figure 1 below.
- 2.2. The ownership boundary is situated on the southern edge of the village of Felsham, with the A134 located approximately 5.6km west. The closest town is Stowmarket, located approximately 8.9km east of the site.
- 2.3. The ownership boundary is enclosed by residential dwellings and an arable field to the north and west, and arable fields to the east and south. The wider surroundings are comprised of a mixture of residential dwellings, blocks of woodland and arable fields lined with mature trees and hedgerows.



3. DESCRIPTION OF THE DEVELOPMENT

- 3.1. The proposals are for the demolition of the existing pool house and greenhouse, and relocation of the existing tennis court. Please refer to Appendix I for the proposed plans.

4. PROTECTED SITES

Statutory

- 4.1. There are two statutory protected sites located within 2km – two Sites of Special Scientific Interest (“SSSI”). Please refer to Appendix C for the full citation.

- i. Bradfield Woods SSSI, approximately 0.9km west.

“These woods are almost entirely of ancient origin and contain the largest area of actively worked coppice-with-standards woodland in Suffolk. Felsham Hall Wood and Monk’s Park, a compartmented former deer park, have a long history of continuous coppicing dating from before 1252 and this, coupled with their great complexity of soil types and drainage has produced a tremendous diversity of species that would otherwise be unable to co-exist.”

- ii. Thorpe Morieux Woods SSSI, approximately 1.3km south.

*“Thorpe Morieux Woods are three ancient coppice woods on poorly drained boulder clays. The woods show a gradation from alkaline to acidic conditions depending on the thickness of a surface deposit of sand and loess. All three woods are under active coppice management and have entirely semi-natural stands. The ground flora contains several uncommon species, is diverse and is notable for the large populations of oxlip *Primula elatior*; a scarce local species.”*

- 4.2. The proposed development falls outside of all SSSI Impact Risk Zones relating to rural non-residential developments.

Non-statutory

- 4.3. There are six non-statutory protected sites located within 2km – three County Wildlife Sites (“CWS”) and three Roadside Nature Reserves (“RNR”). Please refer to Appendix C for the full citations.

- i. Wentis Farm Meadows CWS, approximately 0.6km east.

“This county wildlife site consists of a series of linked small grass fields, bordering or in close proximity to a feeder stream of the River Rat. Although it is likely that some of the grassland is semi-improved, it still retains a good range of grasses and herbs that are associated with neutral species-rich grassland.”

- ii. 78 RNR, approximately 1km northeast.
“Sulphur Clover and Adder's Tongue.”
- iii. 60 RNR, approximately 1km west.
“Sulphur Clover.”
- iv. Rattlesden Arfield CWS, approximately 1.5km southeast.
“This site consists of two areas of semi-natural habitat that have regenerated on the edges of the former Rattlesden WW2 airfield.”
- v. 218 RNR, approximately 1.5km east.
“Orchids.”
- vi. Coronation Meadow CWS, approximately 1.5km northeast.
“Coronation Meadow is a small area of unimproved species-rich grassland at the end of a long thin roadside meadow. The site has a northerly aspect on a gentle slope between Felsham Road and the Rattlesden River.”

5. HABITATS

Desktop review

- 5.1. Priority Habitats to occur within 2km (identified using MAGIC – managed by Natural England), include Good Quality Semi-Improved Grassland, Deciduous Woodland, Traditional Orchards and Woodpasture and Parkland BAP Priority Habitat. The closest of which, is Woodpasture and Parkland BAP Priority Habitat located within the ownership boundary.

Field study

- 5.2. The habitats in the survey areas are of **low** ecological value, being mainly modified, other developed land, species-rich native hedgerow (Priority Habitat) and other native hedgerow (Priority Habitat).
- 5.3. Priority Habitats, as listed under the NERC Act 2006 Section 41 Habitats of Principal Importance found on site include: Hedgerows.
- 5.4. Figure 2 provides a map of the habitats present on the site. NERC Act 2006 Section 41 habitats have been identified where relevant. A full list of plant species recorded on site is attached in Appendix E.

Survey area A

Modified grassland (UK Habitat Classification g4; secondary code: 11 scattered trees, 76 recent management)

- 5.5. Survey area A is located to the southeast of the ownership boundary and is dominated by modified grassland which features some recent management, with a sward height of approximately 15cm. Species include: annual meadow grass *Poa annua*, broad-leaved dock *Rumex obtusifolius*, cock's-foot *Dactylis glomerata*, creeping buttercup *Ranunculus repens*, creeping thistle *Cirsium arvense*, dove's-foot cranesbill *Geranium molle*, nettle *Urtica dioica*, perennial ryegrass *Lolium perenne*, selfheal *Prunella vulgaris*, white dead-nettle *Lamium album* and Yorkshire fog *Holcus lanatus*. The survey area features several sycamore *Acer pseudoplatanus* trees along the southern periphery.

Species-rich native hedgerow (UK Habitat Classification h2a5; secondary code: 190 hedgerow with trees) – Priority Habitat

- 5.6. Adjacent the western periphery of survey area A, there is a species-rich, predominantly native hedgerow with trees. Species include: bramble *Rubus fruticosus*, wild cherry *Prunus avium*, elder *Sambucus nigra*, field elm *Ulmus minor*, hawthorn *Crataegus monogyna* and snowberry

Symphoricarpos albus. Tree species include: sycamore *Acer pseudoplatanus*. This hedgerow does not qualify as “important” under The Hedgerow Regulations 1997, lacking the required number of native woody species or associated features.

Survey area B

Other native hedgerow (UK Habitat Classification h2a6) – Priority Habitat

- 5.7. Survey area B features a native, predominantly hornbeam *Carpinus betulus* and beech *Fagus sylvatica* hedgerow located around its peripheries. The hedgerow was planted in the last six years as mitigation for the installation of the existing tennis court. This hedgerow does not qualify as “important” under The Hedgerow Regulations 1997, lacking the required number of native woody species or associated features.

Other developed land (UK Habitat Classification u1b6; secondary code: 532 artificial ball court)

- 5.8. The survey area features a hardstanding tennis court.

Survey area C

Buildings (UK Habitat Classification u1b5)

Survey area C is dominated by a greenhouse. Please refer to the bat section detailed below for further information.

Other developed land (UK Habitat Classification u1b6)

- 5.9. The survey area features patio surrounding the greenhouse.

Survey area D

Buildings (UK Habitat Classification u1b5)

- 5.10. Survey area D features a pool house which is currently unused. Please refer to the bat section detailed below for further information.

Other developed land (UK Habitat Classification u1b6)

- 5.11. The site features decking around the pool house.



Figure 2
Habitats in the survey areas.
Image © QGIS, date accessed 19/04/23



Photo 1, modified grassland and hedgerow within survey area A, looking northeast.



Photo 2, modified grassland and scattered trees within survey area A, looking southwest.



Photo 3, hardstanding and hedgerow within survey area B, looking northeast.



Photo 4, hardstanding and hedgerow within survey area B, looking southwest.



Photo 5, building one and hardstanding within survey area D, looking southeast.



Photo 6, hardstanding and building two within survey area C, looking north.

6. PROTECTED AND NOTABLE SPECIES

Desktop review

Data search

- 6.1. The biodiversity data search within 2km of the site indicated 790 records from 191 species.
- 6.2. Records of note within 2km and relevant to the proposed development works are:
 - 14 barn owl *Tyto alba* records, with the most recent from 2020.
 - 13 skylark *Alauda arvensis* records, with the most recent from 2021.
 - 11 swift *Apus apus* records, with the most recent from 2019.
 - Nine GCN *Triturus cristatus* records, with the most recent from 2016. The closest record is located approximately 0.9km east.
 - 14 Hazel Dormouse *Triturus cristatus* records, with the most recent from 2021. The closest record is located approximately 1.2km west.
 - 22 hedgehog *Muscardinus avellanarius* records, with the most recent from 2017.
 - 15 bat records, with the most recent from 2021, including common pipistrelles *Pipistrellus pipistrellus*, brown long-eared *Plecotus auritus*, noctules *Nyctalus noctula*, Natterer's *Myotis nattereri*, barbastelles *Barbastella barbastellus* and other unidentified bat species.

Protected species licences

- 6.3. A 2km search on <http://www.magic.gov.uk/> indicated no records of granted European Protected Species ("EPS") Mitigation Licences.

Bats

- 6.4. There are two buildings located within survey areas C and D, as indicated in Figure 3 and photos 7-12. There are no buildings located within survey areas A and B.



Figure 3

Location and numbering of buildings located in the survey areas.

Image © QGIS, date accessed 19/04/23

Building one - Pool house

- 6.5. The building is a timber framed structure situated on a brick plinth, with the roof comprised of peg tiles and a clay ridge. The walls feature a mixture of timber weatherboarding and glass panels/doors.
- 6.6. Internally, the building features an open void. The roof is hipped and the ceiling has been boarded out with timber. The building features modern sawn timbers with a ridge beam.
- 6.7. Roosting opportunities are present externally under raised roof tiles, and internally between timbers and within cracks in the timbers. Although no bats were visible, approximately 15 droppings, consistent in size, structure and appearance with pipistrelle *Pipistrelle sp.* and brown long-eared were present in a cluster below a crevice between two beams.
- 6.8. The pool house is assessed as **moderate** summer, but **negligible** hibernation roost suitability for bats due to its location, roosting features and signs of bats. Please note, the building features glass panels along the eastern and partly along the northern and southern aspects, which would create fluctuations in temperature and humidity throughout the winter months.



Photo 7, north and east aspects of building one within survey area D, looking southwest.



Photo 8, south and east aspect of building one located within survey area D, looking northeast.



Photo 9, internal view of building one, looking west.



Photo 10, scattered droppings located within building one, outlined in red.

Building two – Greenhouse

- 6.9. The building is a metal framed greenhouse, situated on a brick plinth, with the walls and roof comprised of glass panels.
- 6.10. There were no signs of use by bats on the building's exterior or interior and the structure provides an unsuitable roost environment, with no suitable cavities for roosting bats. The building is assessed as **negligible** (summer and hibernation) roost suitability for bats.



Photo 11, south and west aspects of building two located within survey area C, looking northeast.



Photo 12, internal view of building two, looking east.

Trees

- 6.11. The trees around the survey areas were assessed for bat roosting potential and were considered unsuitable due to their age and lack of features.

Foraging and commuting links

- 6.12. The survey areas provide **low** value foraging habitat for bats along the boundary hedgerows, with bats mainly using nearby woodlands for foraging.
- 6.13. The landscape immediately adjacent to the survey areas are considered of **moderate** value for foraging and commuting bats, with scattered mature trees, hedgerows and treelines providing links to the wider landscape. Residential dwellings adjacent the survey areas and within Felsham have the potential to provide roosting opportunities for bats.

Birds

- 6.14. Birds in the UK are classified into three categories of conservation importance - red, amber and green. Factors such as global threat level, population decline, breeding population decline and contraction of breeding range are taken into account to determine classification.
- 6.15. The following bird species were observed during the site visit:

Red listed:

Greenfinch	<i>Chloris chloris</i>
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Amber listed:

Mallard	<i>Anas platyrhynchos</i>
Rook	<i>Corvus frugilegus</i>
Woodpigeon	<i>Columba palumbus</i>
Wren	<i>Troglodytes troglodytes</i>

Green listed:

Blackbird	<i>Turdus merula</i>
Blue tit	<i>Cyanistes caeruleus</i>
Buzzard	<i>Buteo buteo</i>
Carrion crow	<i>Corvus corone</i>
Chaffinch	<i>Fringilla coelebs</i>
Feral pigeon	<i>Columba livia</i>
Goldcrest	<i>Regulus regulus</i>
Goldfinch	<i>Carduelis carduelis</i>
Great tit	<i>Parus major</i>
Robin	<i>Erithacus rubecula</i>

Introduced:

Pheasant	<i>Phasianus colchicus</i>
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- 6.16. The survey areas provide suitable nesting habitats for hedgerow, tree and building nesting species.
- 6.17. The survey areas provide potential breeding habitat for the following Red listed species: house sparrow *Passer domesticus*.
- 6.18. The survey areas provide potential breeding habitat for the following Amber listed species: woodpigeon.
- 6.19. No signs of barn owl were found in the survey areas and no foraging habitat is present, with the modified grassland within survey area A providing a litter layer of <7cm.

Great crested newts

- 6.20. There are no ponds within the survey areas and six further ponds within 250m, which for the size of the development and nature of terrestrial habitat on the site, is a sufficient distance to consider for assessment (Figures 4-7). GCN are most likely to occupy good quality terrestrial habitat within 250m of a breeding pond (English Nature, 2001).
- 6.21. The terrestrial habitats in the survey areas are considered suboptimal, consisting of a mixture of unsuitable (hardstanding) and suitable (modified grassland and hedgerows) GCN foraging, commuting and hibernating habitats.

- 6.22. Terrestrial habitats adjacent the survey areas include a mixture of unsuitable (arable fields and residential dwellings with associated gardens and hardstanding) and suitable (irregularly managed modified grassland, scrub, hedgerows and woodland) GCN foraging, commuting and hibernating habitats.
- 6.23. Ponds 1-3 were assessed as **poor** to **average** suitability for GCN (Table 1). Ponds 4-6 were not assessed in detail, as authorised access to the ponds was not available.
- 6.24. The survey areas fall within the Amber risk zone for GCN district level licensing, which is classified as “containing main population centres for GCN and comprise important connecting habitat that aids natural dispersal” (Natural England, 2021).

Pond	1	2	3
Geographic location	Zone A	Zone A	Zone A
	1.00	1.00	1.00
Pond surface area (m ²)	300m ²	500m ²	50m ²
	0.60	1.00	0.10
Desiccation rate	Annually	Sometimes	Annually
	0.10	0.50	0.10
Water quality/ invert density	Poor	Poor	Poor
	0.33	0.33	0.33
Shoreline shade (%)	70%	80%	70%
	0.80	0.60	0.80
Waterfowl impacts	Absent	Absent	Absent
	1.00	1.00	1.00
Fish impacts	Absent	Absent	Absent
	1.00	1.00	1.00
Ponds within 1km	13+	13+	13+
	1.00	1.00	1.00
Terrestrial habitat quality	Moderate	Moderate	Moderate
	0.67	0.67	0.67
Macrophyte cover (%)	0%	0%	0%
	0.30	0.30	0.30
HSI Score	Below average	Average	Poor
	0.56	0.68	0.47

Table 1, HSI score for ponds within 250m of the proposed site.



Photo 13, pond one, looking north.



Photo 14, pond two, looking north.



Photo 14, pond three, looking east.

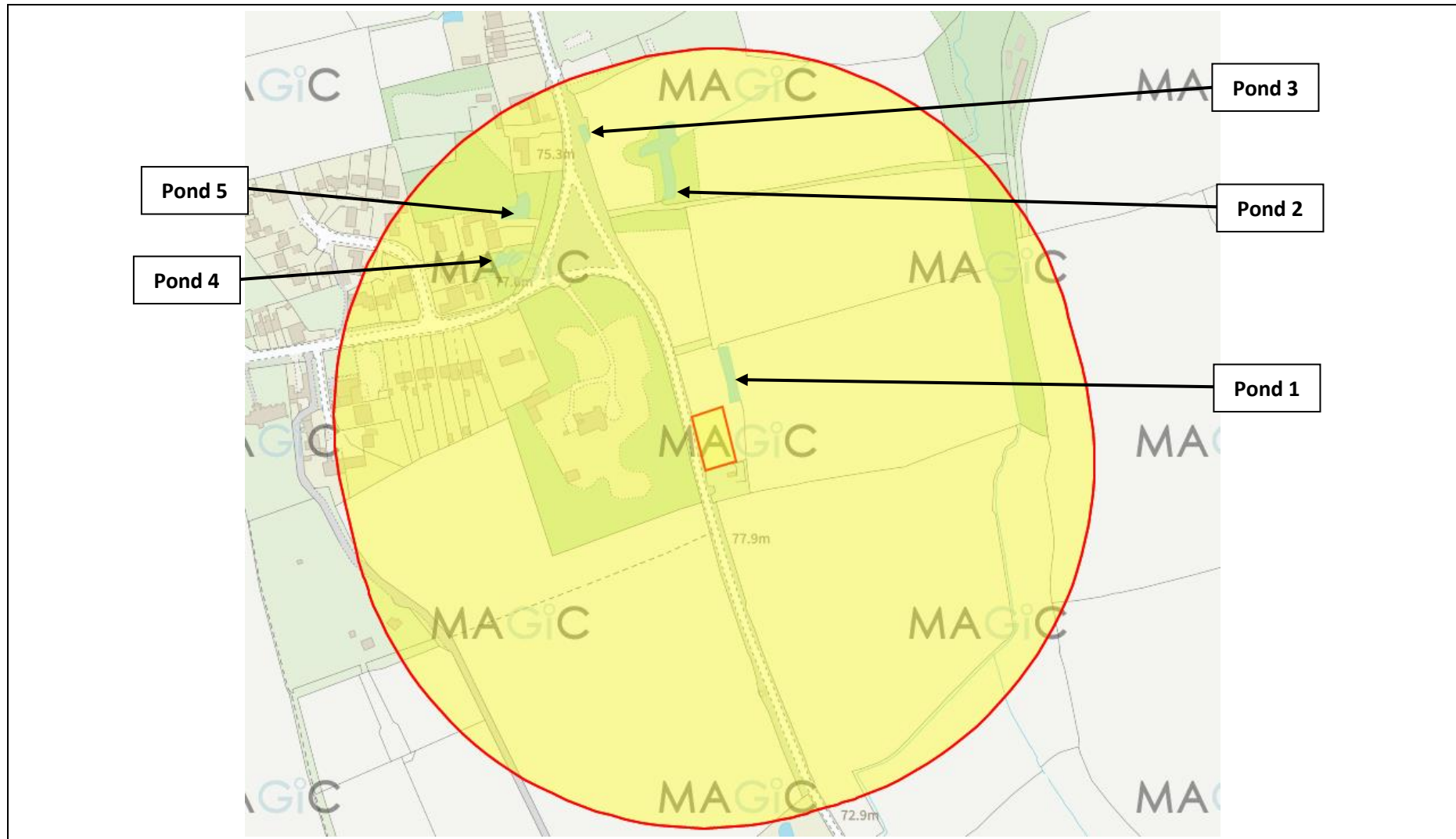


Figure 4
Ponds within 250m of the proposed site (survey area A).
Image © MAGiC, date accessed 19/04/23

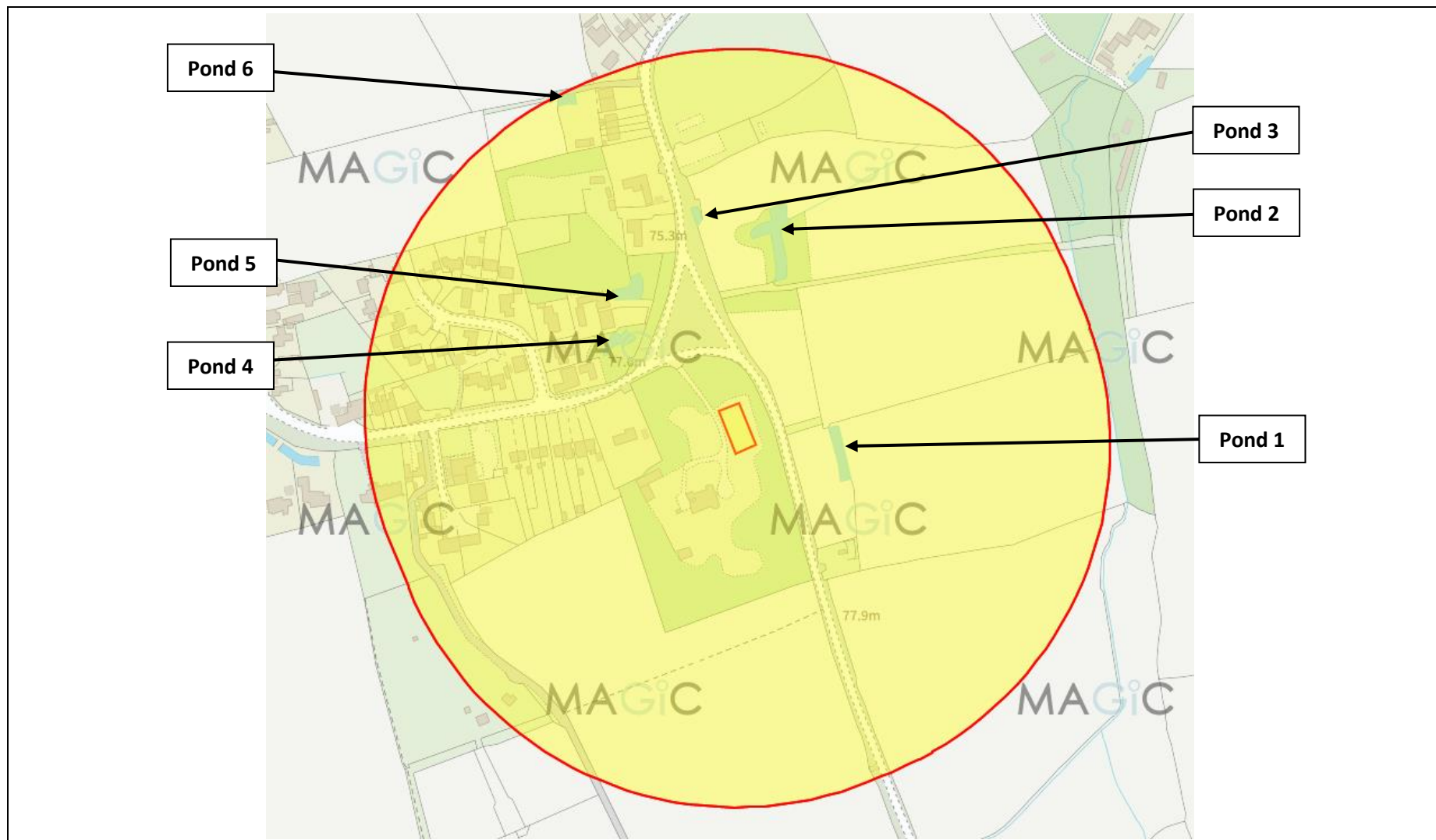
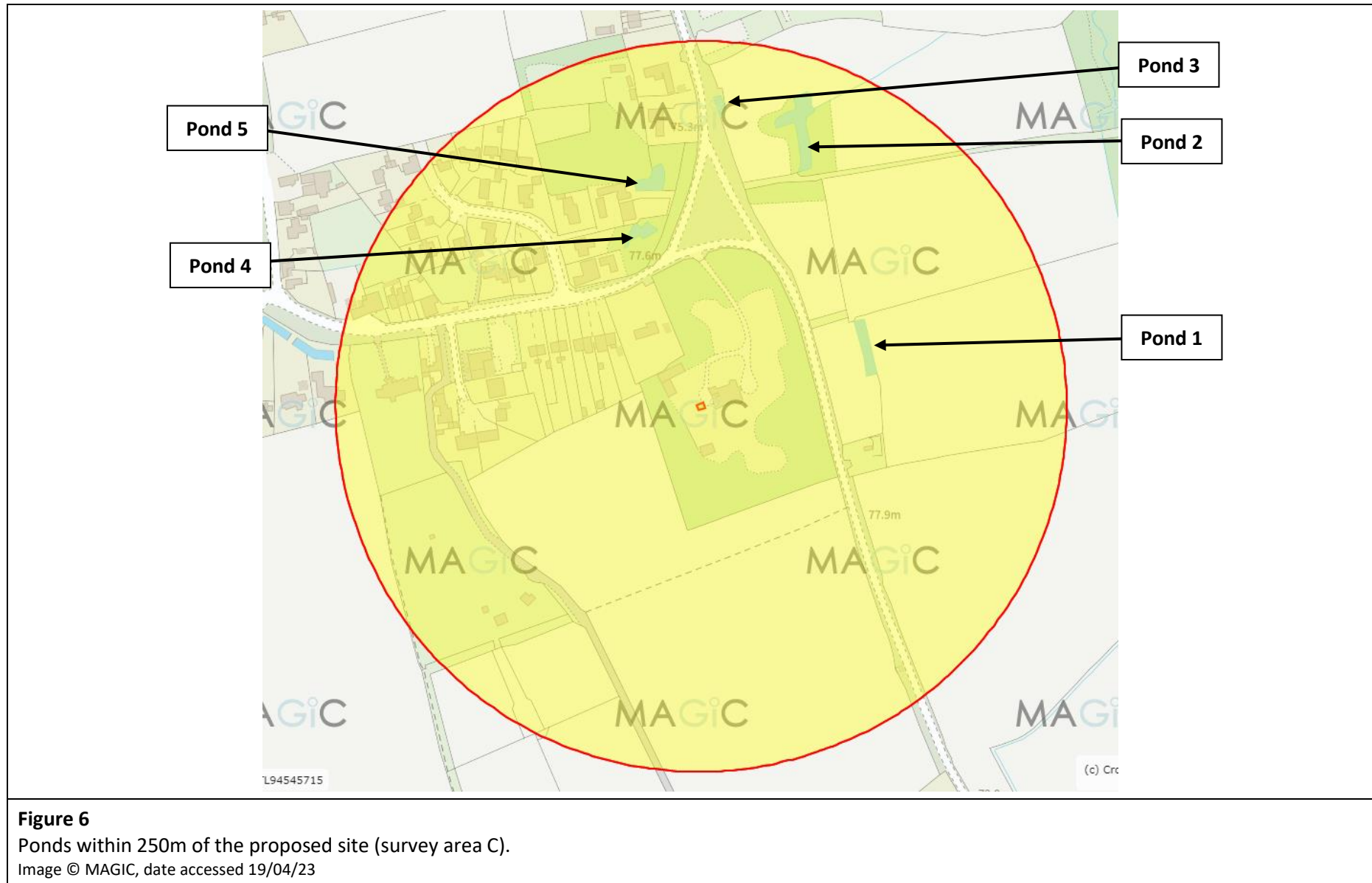


Figure 5
Ponds within 250m of the proposed site (survey area B).
Image © MAGiC, date accessed 19/04/23



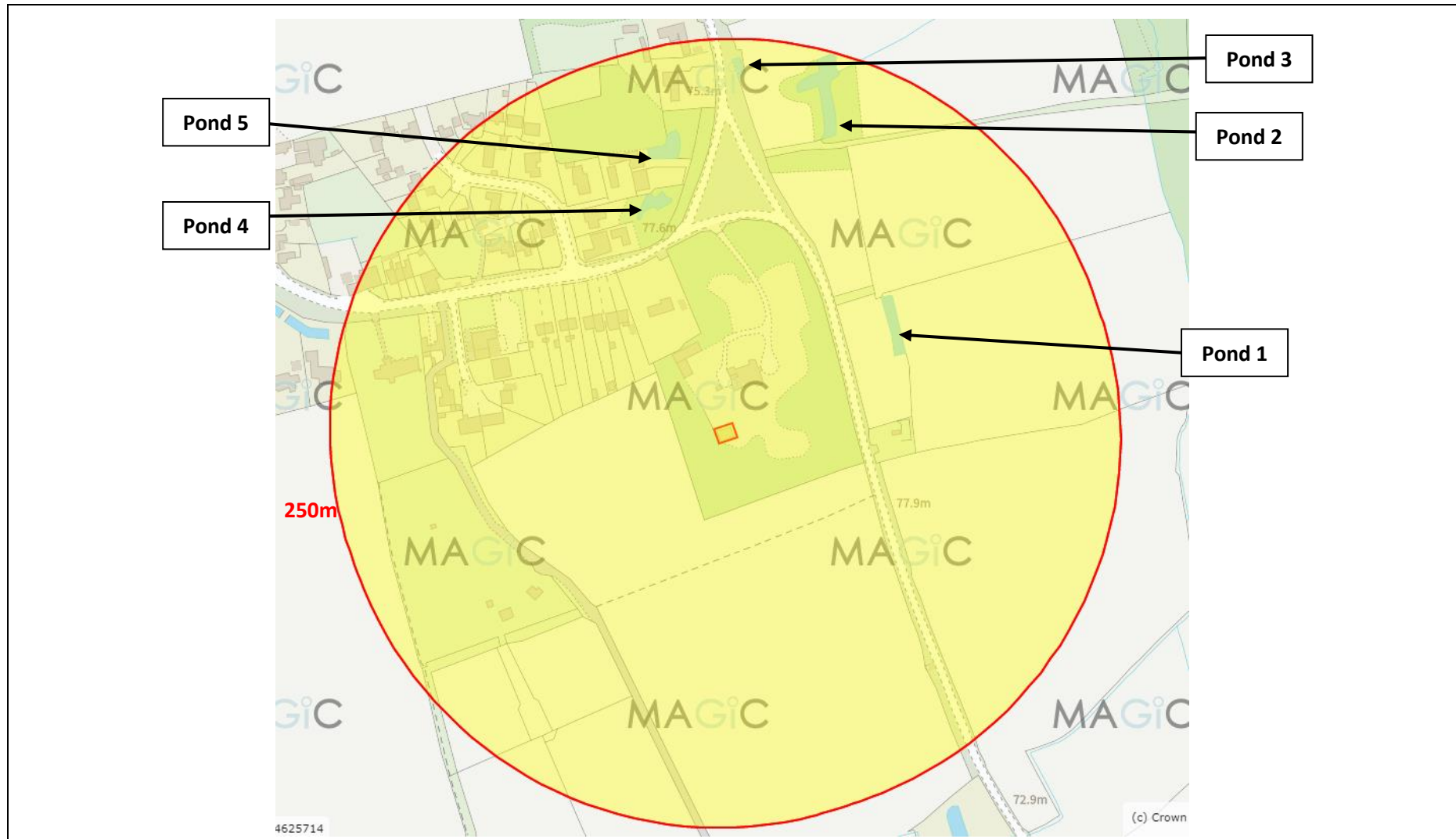


Figure 7

Ponds within 250m of the proposed site (survey area D).

Image © MAGIC, date accessed 19/04/23

Dormice

- 6.25. The hedgerows on the peripheries of the survey areas are considered suboptimal for hazel dormice.
- 6.26. The closest deciduous woodland (identified using MAGIC) is 260m northeast of the survey areas, greater than a hazel dormouse home range ($\approx 70\text{m}$, Bright *et al.*, 2006) and ecologically separated by arable fields with breaks between hedgerow/treelines.

7. DISCUSSION AND CONCLUSIONS

Protected sites

- 7.1. The development footprint falls outside all identified protected sites (statutory and non-statutory). There are two statutory protected sites and six non-statutory protected sites located within 2km of the ownership boundary.
- The closest statutory protected site (Bradfield Woods SSSI) is located approximately 0.9km west and designated for its ancient woodland.
 - The closest non-statutory protected site (Wentis Farm Meadows CWS) is located approximately 0.6km east of the site and designated for its linked small grass fields.
- 7.2. The proposed development falls outside of any SSSI Impact Risk Zones relating to rural non-residential developments.
- 7.3. The proposed development is expected to have no effects on statutory or non-statutory protected sites or their qualifying features, owing to its relatively small scale, distance to protected sites and limited predicted impacts beyond the area of works.

Habitats

- 7.4. The proposed works will require the clearance of vegetated habitats in the survey areas, including ≈0.04ha of modified grassland and ≈100m of hedgerows (Priority Habitat). This is expected to result in a low scale loss of nesting habitat for hedgerow nesting birds, and a low scale loss of foraging features for bats. Please refer to the bat section below for predicted impacts on buildings with potential bat roosts.
- 7.5. As a precautionary measure, the following mitigation will be implemented to avoid impacts on habitats from the proposed works:
- i. A soft landscaping scheme to include:
 - a. The planting of new native species-rich (≥5 species), hedgerows and trees around the site and the infilling of existing hedgerows (see Appendix H for suggested species). The planting scheme will include ≈140m of species-rich native hedgerow surrounding survey area A and within the ownership boundary.
 - b. The planting and management of ≈900m² of grassland meadow.
 - ii. Construction works carried out in accordance with British Standards Institution (2012), BS 5837:2012, Trees in relation to design, demolition and construction – recommendations, to protect trees which are to be retained and their root protection areas.

Bats

- 7.6. The proposed works will require the demolition of buildings one and two, which has the potential to materially modify or destroy potential bat roosting locations, if present.
- 7.7. The following surveys/mitigation are required to determine if any bat species are present, the nature of their use of the buildings and any roosting locations:
 - i. At least two bat activity survey to be conducted on building one (pool house) between May and September. Please note, at least one survey must be conducted between May and August.
 - ii. If bats are found to be present and roosting within any buildings, further activity surveys and a European Protected Species Mitigation Licence may be required for the development.
 - iii. Any lighting schemes will follow guidance from the Bat Conservation Trust and CIE 150:2003. Warm-white (long wavelength) lights with UV filters will be fitted as close to the ground as possible. Lighting units will be angled below 70° and equipped with movement sensors, baffles, hoods, louvres and horizontal cut off units at 90°.
- 7.8. The outcomes of further activity surveys will inform the detailed recommended mitigation for bats. We consider that the proposed development will be able to accommodate this in the form of alternative roosting opportunities, as required.
- 7.9. Building Regulations state that the energy efficiency of buildings must be improved where possible and that contractors must assess the condensation risk within the roof space and make appropriate provisions in line with BS 5250:2011. This British Standard states that both High Resistance (bitumen type 1F) and Low Resistance (non-bitumen coated roofing membranes (NBCRM)) underlays are acceptable as long as appropriate ventilation is provided. As NBCRM are proven to entangle bats through regular contact, which also compromises the integrity of the membrane, the Bat Conservation Trust recommend only NBCRM that have passed the snagging propensity test (must be supplied/installed with the necessary certification) or traditional type 1F bitumen are used.

Birds

- 7.10. The proposed works are expected to result in a low scale loss of bird nesting habitat through the demolition of the buildings and clearance of vegetation, including hedgerows.
- 7.11. Any works affecting bird nesting habitat such as management of hedgerows, trees or buildings would ideally need to be conducted outside the main nesting season, which lasts from March to August. If work is planned during the bird nesting season, then a precautionary check of all habitats will be conducted by a qualified ecologist immediately prior to starting any work. If any

nesting birds are found, an appropriate protection zone from the nest will be required and will be maintained until the young have fledged.

7.12. As enhancements, the following will be implemented:

- i. Two small bird boxes (Schwegler 1B or 2H Nest Box – Appendix F).

7.13. After these precautionary mitigation measures, we predict no impact on birds as a result of the development plans, and no further surveys are necessary.

Great crested newts

7.14. The proposed works are expected to result in a low scale loss of suitable GCN terrestrial habitat through the clearance of ≈ 0.04 ha of modified grassland and ≈ 100 m of hedgerows. Aquatic habitats will be unaffected by proposed works.

7.15. Taking a worst-case scenario of 0.01-0.1ha of land being lost or damaged within 100m of a breeding pond, the risk assessment calculation (set out in the GCN method statement template provided by Natural England) indicates an “*offence likely*”.

7.16. As GCN may commute across the survey areas to reach ponds in the local vicinity, further steps are required to inform the planning application. This can be in the form of the following methods:

- i. Further GCN surveys:
 - a. Presence/likely absence surveys on ponds within 250m of the site which contain sufficient levels of water during the GCN breeding season (can only be conducted between mid-March and mid-June). Please note, a number of visits are required in the peak season (mid-April to mid-May).
 - b. eDNA survey on pond one, within 100m of the site which contains sufficient levels of water during the GCN breeding season (can only be conducted between mid-April and June).
 - c. The outcomes of the presence/likely absence or eDNA surveys will inform a detailed mitigation strategy for GCN and whether a district level license or EPS Mitigation Licence will be required from Natural England for the proposed development to proceed.
- ii. Apply to join a district level licensing (“DLL”) scheme (can be completed all year round). Please note, all ponds will be assumed to contain GCN unless presence/likely absence surveys or eDNA tests have confirmed likely absence.

Dormice

7.17. No impacts are expected on this species from the proposed development and no mitigation is required.

Other animals

7.18. The surrounding habitat of the survey areas are considered suitable for hedgehogs. To maintain potential hedgehog routes within the survey area and between the ownership boundary and further habitats, any fencing installed will be porous and provide access openings for hedgehogs (see Appendix G for examples).

7.19. General mitigation to protect wildlife during the construction period are as follows:

- Any excavations will have a rough sawn plank placed inside to act as a ramp to allow any animals that have fallen in to escape. The excavations will be checked each morning works are scheduled for, to remove any animals trapped.
- Construction materials will be stored off the ground on pallets and waste materials in skips, to prevent providing shelter for animals and subsequent harm when materials are moved.

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Appendix A Methods

Desktop Review

A desktop review of published data, such as records of protected sites and species, OS maps and satellite images has been carried out. A data search was carried out with the Suffolk Biodiversity Information Service ("SBIS").

A field survey visit was conducted to confirm the findings of the desktop review and to record habitats and species located on site.

Equipment available for use during the survey were binoculars, ladders, torches, endoscope and a digital camera.

Habitats

The habitats on site have been defined using the UK Habitat Classification (Butcher *et al.*, 2020). Natural Environment and Rural Communities (NERC) Act (2006) habitats listed under section 41 have been identified where appropriate.

Bats

An assessment of the habitats on and surrounding the site for bat interest was made, in accordance with latest bat survey guidelines (Collins, 2016).

The buildings on site was assessed for its potential to support roosting bats and involved a thorough internal and external search of all suitable cavities, holes and crevices. All suitable areas, including objects, ledges and floors were inspected for the following signs:

- Bat droppings
- Stains around roosting places and entrance points
- Urine marks
- Prey remains
- Areas devoid of cobwebs
- Live or dead bats
- Suitable cracks and crevices for bats to enter

In exposed conditions, the signs of bat usage such as droppings and urine marks can be obliterated by heavy rain.

An evaluation system was applied to the building(s) using the following criteria:

- **Negligible roost suitability for bats.** These buildings have no potential roosting features for bats, or very few or minor features in an isolated or unsuitable location such that the presence of a bat roost is considered highly unlikely. Such buildings usually fall into two main types: generally, well maintained without cracks and crevices, no gaps between bargeboard or soffit and wall, or without an attic space; or those which contain some or all of the above features, but are both draughty and thick in cobwebs

or contain strong odours such as solvents, diesel etc. It must be borne in mind that a building from this latter group can become suitable for bats following refurbishment. This often happens to houses once the attic space has been cleaned and under-felted prior to timber treatment. When no suitable habitats for bats are found, no further surveys or European Protected Species (“EPS”) mitigation licence are required.

- **Low roost suitability for bats.** Buildings in this category have one or more potential roost sites that could be used by individual bat opportunistically. These buildings do not however provide suitable conditions (such as space, shelter, temperature, humidity, or light and noise disturbance) to be used on a regular basis by a large number of bats. Structures with low roost suitability for bats will require **one dusk emergence or one dawn re-entry survey** conducted between May and August to assess their current use by bats.
- **Moderate roost suitability for bats.** These buildings contain one or more potential roosting sites which could be regularly used by bats owing to their size, shelter, protection and conditions. These buildings are however unlikely to support a roost of high conservation status (maternity roost or hibernation roost). Structures with moderate roost suitability for bats will require two surveys, **one dusk emergence and one dawn re-entry survey** conducted between May and September with at least one of the surveys undertaken between May and August, to assess their current use by bats.
- **High roost suitability for bats.** This group includes buildings with one or more potential roost sites which are obviously suitable for use by a larger number of bats on a regular basis and potentially for longer periods of time owing to their size, shelter, protection and conditions. These buildings may support a roost of high conservation status (maternity roost or hibernation roost) and will require three activity surveys to assess their current use by bats. The surveys should include at least **one dusk emergence and** at least **one dawn re-entry survey** (the third survey can either be at dusk or dawn) and should be conducted between May and September with at least two of surveys undertaken between May and August.

Trees on and around the site were assessed for their suitability to support roosting bats. The assessment involved a ground level inspection of the exterior of the trees to search for features offering roosting potential to bats such as split limbs, woodpecker holes, cavities, lifted bark and dense thick-stemmed ivy.

An evaluation system was applied to the trees using the following criteria:

- **Negligible roost suitability for bats.** Trees unlikely to be used by roosting bats.
- **Low roost suitability for bats.** A tree of sufficient size and age to contain Potential Roosting Features (“PRFs”), but with none seen from the ground or features seen with only very limited roosting potential.
- **Moderate roost suitability for bats.** A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.

- **High roost suitability for bats.** A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection and surrounding habitat.

The habitats on and around the site were assessed for their commuting and foraging potential for bats. An evaluation system was applied to the commuting and foraging potential using the following criteria.

- **Negligible commuting and foraging potential for bats.** Habitat features unlikely to be used by commuting or foraging bats.
- **Low commuting and foraging potential for bats.** Habitats that could be used by a small number of commuting or foraging bats such as, a gappy hedgerow, unvegetated stream or lone trees, but are isolated and not well connected to the surrounding landscape.
- **Moderate commuting and foraging potential for bats.** Habitats that are continuous and connected to the wider landscape such as, lines of trees, scrub, linked back gardens, grasslands and water features.
- **High commuting and foraging potential for bats.** Habitats that are continuous and connected to the wider landscape such as, river valleys, watercourses, hedgerows, lines of trees, deciduous woodland, and grazed parkland. These habitats are likely to be used regularly by commuting or foraging bats and are likely to be close to, or connected to, known roosts.

Birds

The site and its surrounding habitats were assessed for their potential to support breeding birds. Bird nesting habitat could include grassland, hedgerows, scrub, trees and buildings.

Bird species noted during the site visit were recorded. Trees, buildings and grassland were checked for use by barn owls, swifts and skylarks.

Great crested newts

Habitats on and near the site were assessed for their suitability for great crested newts ("GCN").

Water features on and near the site were assessed for their suitability for occupation by GCN, according to a Habitat Suitability Index ("HSI"). The HSI is a theoretical index of a waterbody's suitability to support a breeding population of GCN and is calculated from a series of ten variables recorded on site, as detailed in Table 2.

Indices	Name	Description
SI1	Geographic Location	Lowland England or upland England, Scotland and Wales
SI2	Pond area	To the nearest 50m ²
SI3	Permanence	Number of years' pond dry out of ten
SI4	Water quality	Measured by invertebrate diversity
SI5	Shade	Percentage shading of pond edge at least 1m from shore
SI6	Fowl	Level of waterfowl use
SI7	Fish	Level of fish population
SI8	Pond count	Number of ponds within 1km divided by 3.14
SI9	Terrestrial habitat	Quality of surrounding terrestrial habitat
SI10	Macrophytes	Percentage extent of macrophyte cover on pond surface

Table 2, HSI indices.

The HSI score is the geometric mean of the ten suitability indices calculated:

$$HSI = (SI1 \times SI2 \times SI3 \times SI4 \times SI5 \times SI6 \times SI7 \times SI8 \times SI9 \times SI10)^{1/10}$$

Once calculated, the HSI score for a waterbody can be categorised as follows:

Excellent (>0.8)

Good (0.7 – 0.79)

Average (0.6 – 0.69)

Below Average (0.5 – 0.59)

Water voles, otters and white-clawed crayfish

Water features on and adjacent to the site were assessed for use by water vole, otter and white-clawed crayfish. Otters in England typically use areas of fresh water and streams and ditches for moving between habitats. Otter holts are usually located underneath tree roots, in tunnels. Field signs of presence include spraints on prominent features such as bridges, tree bases or boulders, and footprints.

Water voles inhabit burrows in the banks of ponds, ditches, streams and rivers. Field signs include droppings left in latrine spots, burrow entrances or feeding remains.

White-clawed crayfish inhabit streams and rivers with a moderate flow rate, and lakes. Clear, well-oxygenated water is preferred. Typical habitat features include crevices in rocks, gaps between stones, submerged plants and tree roots.

Reptiles

The habitats on the site and within the proposed area of works were assessed for suitability for reptiles.

Reptiles rely on conditions that allow them to maintain their body temperature through basking. They require access to direct sunlight, shelter from the elements, sufficiently large populations of prey species and hibernation sites.

Reptiles typically favour a habitat mosaic with a diverse vegetation structure, which could include grassland, scrub and woodland.

Badgers

An inspection of all habitats with the potential to support badger *Meles meles* sett construction and foraging activities on the application site was undertaken. Any incidental observations of badger signs were also recorded. The survey comprised searching for evidence of badger activity in the form of setts, droppings, pathways, snuffle holes, hair and footprints.

Dormice

Dormice habitats include deciduous woodland, hedgerows and scrub. Dormice are found mainly in the south of England, including Kent and Sussex, with sporadic populations elsewhere. An assessment of the suitability of site habitats for occupation by dormice was made.

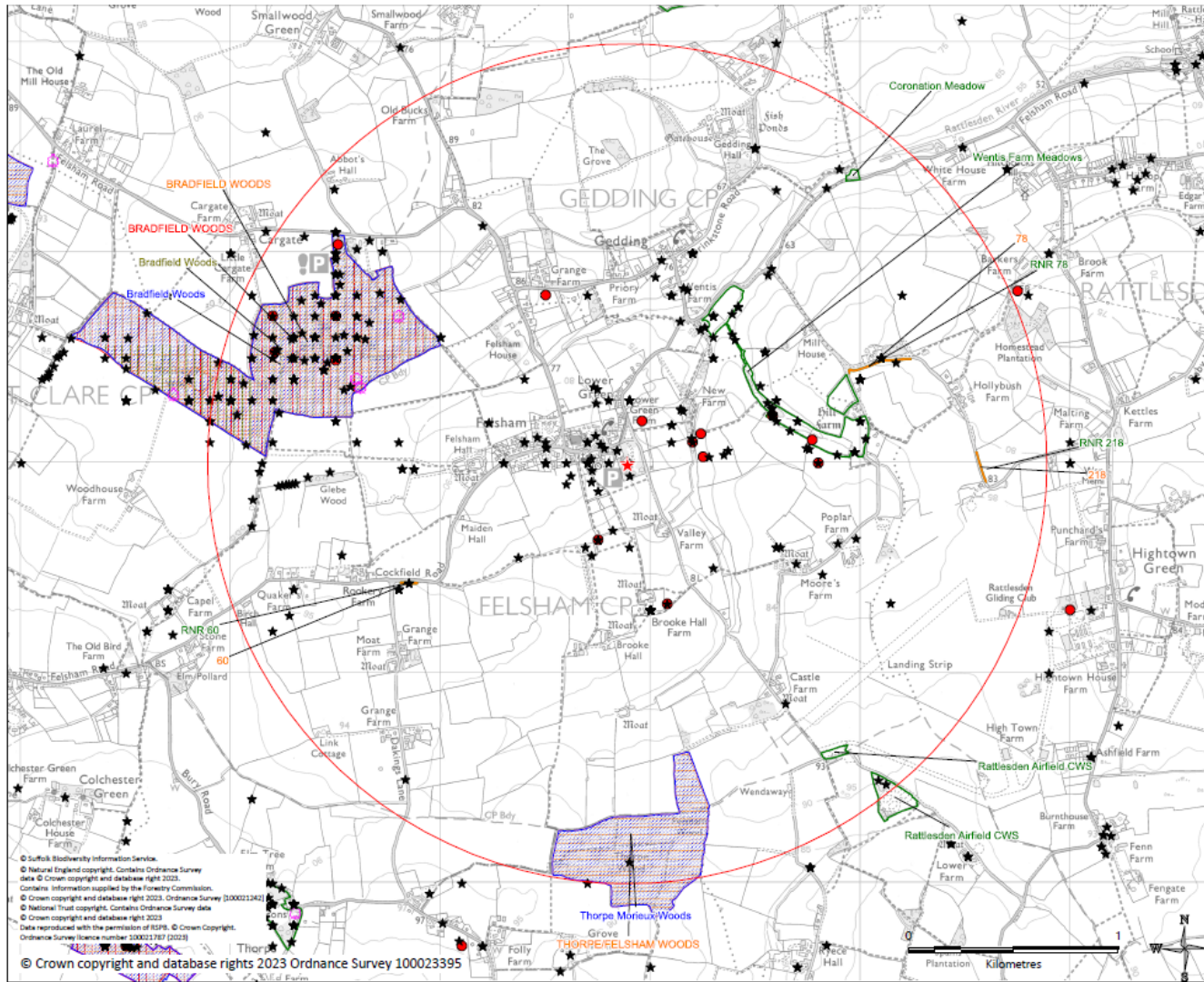
Other protected species

Particular regard was made to the nature of the proposed development and the potential of impact upon any other protected species, species which are nationally or locally scarce, or species subject to other conservation designations such as Red Data Book or Priority S41 species, from the development work, should these be present in the area.

Constraints

The field survey was conducted outside of the optimal survey period for flowering plants. Although the habitats recorded on site are unlikely to change to those described in this report, flora biodiversity is likely to be under recorded.

Appendix B
Map of protected sites within 2km



Greenlight (The Old Rectory, Felsham TL9488956996) 2km Data Enquiry



Date: 17/04/2023 | Drawn by: Jane Mason

Appendix C

Protected sites citations

SSSI citations

COUNTY: SUFFOLK

SITE NAME: BRADFIELD WOODS

DISTRICT: ST EDMUNDSBURY

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981.

Local Planning Authority: St Edmundsbury Borough Council

National Grid Reference: TL 925577

Area: 83.0 (ha.) 205.0 (ac.)

Ordnance Survey Sheet 1:50,000: 155

1:10,000: TL 95 NW

Date Notified (Under 1949 Act): 1971

Date of Last Revision: –

Date Notified (Under 1981 Act): 1986

Date of Last Revision: –

Other Information:

Part owned by the Royal Society for Nature Conservation and managed by the Suffolk Trust for Nature Conservation. The woods are covered by a Tree Preservation Order.

Description and Reasons for Notification:

These woods are almost entirely of ancient origin and contain the largest area of actively worked coppice-with-standards woodland in Suffolk. Felsham Hall Wood and Monk's Park, a compartmented former deer park, have a long history of continuous coppicing dating from before 1252 and this, coupled with their great complexity of soil types and drainage has produced a tremendous diversity of species that would otherwise be unable to co-exist. Over 370 species of plants have been recorded, a total surpassed only in two or three other locations. Chensil Grove and Hedge Wood are satellites to this main area of woodland.

Felsham Hall Wood and Monk's Park contain a complex mosaic of stand-types including extensive areas of plateau alder woodland and acid pedunculate oak-hazel-ash woodland with patches of wet ash-maple, acid birch-ash-lime and lowland hazel-pedunculate oak woodland on the more acidic soils. Standards are mainly of oak *Quercus robur*, ash *Fraxinus excelsior*, silver birch *Betula pendula* and alder *Alnus glutinosa* and are mostly less than 70 years old. They form a sparse canopy over a mixed coppice that varies from newly cut to about 30 years growth, in irregular panels. Ash, field maple *Acer campestre*, cherry *Prunus avium* and hazel *Corylus avellana* predominate on calcareous boulder clay soils, whilst the more acidic soils support alder, silver birch, downy birch *Betula pubescens*, small-leaved lime *Tilia cordata*, hornbeam *Carpinus betulus* and various species of elm and sallow. Associated shrubs include wild crab apple *Malus sylvestris*, midland hawthorn *Crataegus laevigata*, spindle-tree *Euonymus europaeus* and holly *Ilex aquifolium*. A number of older, pollard trees are found on the boundary banks.

An immensely rich flora has developed under the influence of coppicing. Dog's mercury *Mercurialis perennis* or bramble *Rubus fruticosus* are generally dominant beneath mature coppice with areas of bluebell *Hyacinthoides non-scripta*, primrose *Primula vulgaris*, wood anemone *Anemone nemorosa* and wood sorrel *Oxalis acetosella*. Bracken glades have developed on sand lenses and woodland clearings beneath scattered silver birch and hawthorn. Elsewhere there are large numbers of many rare and uncommon ancient woodland plants such as oxlip *Primula elatior*, herb paris *Paris quadrifolia*, ramsons *Allium ursinum*, water avens *Geum rivale*, wood spurge *Euphorbia amygdaloides* and several species of orchids. A very long list of fungal species has also been recorded in the woods, including two species not previously recorded elsewhere in Britain.

The rides are wide and well maintained with a distinctive flora that includes pendulous sedge *Carex pendula*, hairy wood rush *Luzula pilosa*, yellow archangel *Lamiastrum galeobdolon* and nettle-leaved bellflower *Campanula trachelium*. They provide a valuable habitat for insects, particularly moths and butterflies and species of note include the white admiral and green and purple hairstreak butterflies.

The woods support a range of woodland birds, including a substantial breeding population of nightingales. Other notable animal species include the dormouse *Muscardinus avellanarius* which, along with other small mammal species, appears to be favoured by the coppice management.

Additional variety is provided by a substantial pond and by a glade known as Hewitt's Meadow. There are also many small streams, pools and temporary wet hollows which support bryophytes, ferns and other plants requiring high humidity.

COUNTY: SUFFOLK SITE NAME: THORPE MORIEUX WOODS

DISTRICT: BABERGH, MID SUFFOLK

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981.

Local Planning Authority: Babergh District Council
Mid Suffolk District Council

National Grid Reference: TL 925547 Area: 43.6 (ha.) 107.7 (ac.)
TL 950551

Ordnance Survey Sheet 1:50,000: 155 1:10, 000: TL 95 NW, TL 95 NE,
TL 95 SE, TL 95 SW

Date Notified (Under 1949 Act): 1972 Date of Last Revision: –

Date Notified (Under 1981 Act): 1985 Date of Last Revision: –

Other Information:

Bull's Wood is a nature reserve belonging to the Suffolk Trust for Nature Conservation.

Reasons for Notification:

Thorpe Morieux Woods are three ancient coppice woods on poorly drained boulder clays. The woods show a gradation from alkaline to acidic conditions depending on the thickness of a surface deposit of sand and loess. All three woods are under active coppice management and have entirely semi-natural stands. The ground flora contains several uncommon species, is diverse and is notable for the large populations of oxlip *Primula elatior*; a scarce local species.

The stand-types in Bull's Wood are mainly acid pedunculate oak-hazel-ash woodland and wet ash-maple woodland. There are, in addition good stands of invasive and lineage elm woodland. Thorpe and Felsham Woods are on more acid soils and contain very little field maple *Acer campestre*; therefore oak-hazel-ash woodland predominates. There are also small areas of secondary woodland with no coppice layer. Hastings Wood has similarities with Bull's Wood and has good stands of ash-maple woodland.

Bramble *Rubus fruticosus* agg. and dog's mercury *Mercurialis perennis* are dominant on the ground flora of all the woods with oxlips co-dominant in places. Many species that are indicators of ancient woodland occur including wood anemone *Anemone nemorosa*, wood sorrel *Oxalis acetosella*, wood spurge *Euphorbia amygdaloides*, wood melick *Melica uniflora*, herb paris *Paris quadrifolia* and early purple orchid *Orchis mascula*. Several wet hollows with marsh marigolds *Caltha palustris* and lesser pond sedge *Carex acutiformis* are also present. Wet rides have been created in Thorpe and Felsham Woods. Meadowsweet *Filipendula ulmaria*, tufted hair-grass *Deschampsia cespitosa* and rough meadow-grass *Poa trivialis* are dominant with creeping buttercup *Ranunculus repens*, water avens *Geum rivale* and soft rush *Juncus effusus*.

County Wildlife Sites citations

CWS Number	Name	Description	NGR
Babergh 39	RATTLESDEN AIRFIELD CWS	<p>This site consists of two areas of semi-natural habitat that have regenerated on the edges of the former Rattlesden WW2 airfield. The regeneration and development of habitats on this site has, in part, been influenced by the fragments of former airfield infrastructure that remain, such as concrete taxi and runways. Along with the site's underlying chalky Boulder Clays, the concrete has affected the soil pH and also impeded drainage in places. This has led to localised colonisation by chalk tolerant species such as yellow-wort, purging flax, bee and common-spotted orchid, the concrete provides a habitat niche for 'wall plants' such as biting stonecrop, and wet hollows and formerly rutted ground provide suitable habitat for wetland species including rushes and false fox sedge. Both parts of the site have valuable areas of naturally regenerated scrub which is of high value for birds. The reservoir in the south-eastern site is very sheltered, with its steep sunny banks being ideal for colonisation by unimproved grassland species such as yellow-wort, orchids and bird's-foot trefoil. The combination of bare ground, good sources of native pollen and nectar and the sheltered location also make this valuable habitat for butterflies, dragonflies and other invertebrates. Grass snake (biodiversity priority species), common toad (biodiversity priority species) and common frog have all been recorded on site.</p> <p>For a comparatively small area, this CWS has a very diverse range of habitats from mature trees, scrub, unimproved grassland (biodiversity priority habitat), open water (biodiversity priority habitat) and bare ground and is therefore valuable for a wide range of wildlife.</p>	TL961554
Mid Suffolk 107	CORONATION MEADOW	<p>Coronation Meadow is a small area of unimproved species-rich grassland at the end of a long thin roadside meadow. The site has a northerly aspect on a gentle slope between Felsham Road and the Rattlesden River. It is hedged on three sides and the Rattlesden parish boundary runs along the western margin of the site. These surrounding hedges are structurally diverse, connecting the meadow to the wider landscape and providing forage and shelter for a range of fauna. The site is particularly notable for the occurrence of oxlip, a nationally scarce species which occurs in ancient woodlands. Other uncommon plants recorded here are adder's-tongue fern and twayblade orchid.</p>	TL959583
Mid Suffolk 164	WENTIS FARM MEADOWS	<p>This county wildlife site consists of a series of linked small grass fields, bordering or in close proximity to a feeder stream of the River Rat. Although it is likely that some of the grassland is semi-improved, it still retains a good range of grasses and herbs that are associated with neutral species-rich grassland (biodiversity priority habitat) e.g. sulphur clover, spiny rest harrow and round-fruited rush. Strawberry clover is an interesting feature of the drier areas of grassland. At the northern end of the riverside grassland, a shallow on-stream lake has been created that supports a diverse emergent and</p>	TL954574

		fen flora, including southern marsh orchid. Beyond the lake, the stream follows a sinuous course through a deep wooded gull. Hard shield fern and early purple orchid have been recorded in this woodland. In addition, oxlip have been recorded further downstream.	
Mid Suffolk 170	RNR 60	Sulphur Clover. This site is also a Roadside Nature Reserve.	TL93805643 - TL93895643
Mid Suffolk 175	RNR 78	Sulphur Clover and Adder's Tongue. This site is also a Roadside Nature Reserve.	TL 95955744 - TL 96245749
Mid Suffolk 206	RNR 218	Orchids. This site is also a Roadside Nature Reserve.	TL96555705 - TL96605690

Appendix D Legislation

European Protected Species

The Ramsar Convention (1971) on Wetlands of International Importance especially as Waterfowl Habitat seeks to promote the conservation and wise use of wetlands, particularly those which support internationally significant numbers of water birds. This is achieved through the designation of Ramsar Sites.

The European Community Council Directive on the Conservation of Wild Birds (79/409/EEC) sets out general rules for the conservation of all naturally occurring wild birds, their nests, eggs and habitats. It requires member states to designate Special Protection Areas (SPAs) for protection of certain species.

The main piece of legislation relating to nature conservation in Great Britain is **The Wildlife and Countryside Act 1981 (as amended)**. This Act is supplemented by provision in **The Countryside and Rights of Way (CROW) Act 2000** and **The Natural Environment and Rural Communities Act 2006 (in England and Wales)**. This act provides varying degrees of protection for the listed species of flora and fauna, including comprehensive protection of wild birds, their nests and eggs.

The Countryside and Rights of Way Act 2000 strengthens the protection given to SSSIs. It revises the procedures for the notification of SSSIs and for the consenting of operations which may damage the special interest of a SSSI. Local authorities have a duty to take steps, consistent with the proper exercise of their functions, to further the conservation and enhancement of SSSIs. The act also strengthens the existing provisions of the Wildlife and Countryside Act 1981 for the enforcement of wildlife legislation, including a new offence of "recklessly" destroying or damaging the habitats of certain protected species.

UK wildlife is also protected under **The Conservation (Natural Habitats &c.) Regulations 1994** (which were issued under the European Communities Act 1972), through inclusion on Schedule 2. In 2017, these Regulations, together with subsequent amendments, were consolidated into **The Conservation of Habitats and Species Regulations 2017**.

The Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites. The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 5. However, these actions can be made lawful through the granting of licenses by the appropriate authorities. Licenses may be granted for a number of purposes but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild population of the species concerned.

The Protection of Badgers Act 1992 consolidates previous badger legislation by providing comprehensive protection for badgers and their setts, with a requirement that any authorised sett disturbance or destruction be carried out under licence.

The Hedgerows Regulations 1997 aim to protect important hedgerows in the countryside. They make it illegal to remove most countryside hedges without first notifying the local planning authority, and provide protection for 'important hedgerows'.

County Wildlife Site is a non-statutory designation used to identify high quality wildlife habitats in a county context. Local Authorities have a responsibility as part of their planning function to take account of sites of substantial nature conservation value and to consider them alongside other material planning considerations. The location of County Wildlife Sites will be included in Local Plans and Development Documents.

National Planning Policy - National Planning Policy Framework (NPPF)

Section 15 of the National Planning Policy Framework 2021 (NPPF): Conserving and enhancing the natural environment states that 'planning policies and decisions should contribute to and enhance the natural and local environment by ... minimising impacts on and providing net gains for biodiversity.'

Office of The Deputy Prime Minister ("ODPM") Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their impact within the planning system.

Paragraph 98 of Circular 06/2005 states that 'the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat'.

Implications of legislation and policies

Without this ecological assessment, the potential developer would be unable to demonstrate due diligence in his responsibilities. Furthermore, the local planning authority would not have been provided with sufficient information for a planning decision to be made. This could result in non-determination or refusal of the application.

With legal responsibilities and planning implications, it is essential that any ecological assessment of a potential development site, including the area of this report, must determine the possible presence or absence of any protected species as part of any planning development consideration.

Where mitigation or compensation measures are required to ensure that no significant impacts will result on biodiversity from the development, the proposed measures may be secured through planning conditions or by EPS Mitigation Licences from Natural England.

Bats

All bat species in Britain are protected under the Wildlife and Countryside Act 1981 through inclusion on Schedule 5. They are also protected under the Conservation (Natural Habitats &c.) Regulations 1994 (which were issued under the European Communities Act 1972), through inclusion on Schedule 2. On 30th November 2017, these Regulations, together with subsequent amendments, were consolidated into the Conservation of Habitats and Species Regulations 2017.

European protected animal species (“EPS”) and their breeding sites or resting places are protected under Regulation 42. It is an offence for anyone to deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs. It is an offence to damage or destroy a breeding or resting place of such an animal. It is also an offence to have in one's possession or control, any live or dead European protected species.

The threshold above which a person will commit the offence of deliberately disturbing a wild animal of a European protected species has been raised. A person will commit an offence only if he deliberately disturbs such animals in a way as to be likely significantly to affect (a) the ability of any significant groups of animals of that species to survive, breed, or rear or nurture their young, or (b) the local distribution of abundance of that species. The existing offences under the Wildlife and Countryside Act (1981) as amended which cover obstruction of places used for shelter or protection (for example, a bat roost), disturbance and sale still apply to European protected species.

This legislation provides defences so that necessary operations may be carried out in places used by bats, provided the appropriate Statutory Nature Conservation Organisation (in England this is Natural England) is notified and allowed a reasonable time to advise on whether the proposed operation should be carried out and, if so, the approach to be used. The UK is a signatory to the Agreement on the Conservation of Bats in Europe, set up under the Bonn Convention. The Fundamental Obligations of Article III of this Agreement require the protection of all bats and their habitats, including the identification and protection from damage or disturbance of important feeding areas for bats.

Barn Owls

The Habitats Regulations (1994), as amended, states that a person commits an offence in the case of Barn Owl only if this species is disturbed in the breeding season. This applies equally to all those bird species listed under Schedule 1.

Breeding Birds

It is an offence to kill, injure or take any wild bird; take, damage or destroy the nest of any wild bird while that nest is in use or being built (even of "pest" species); take or destroy the eggs of any wild bird.

Great Crested Newts

Great crested newts are protected under both English and European law. It is an offence to kill, injure, disturb or take great crested newts or to damage or destroy their places of shelter, whether the animals are present or not.

Water Vole

The water vole received limited legal protection in April 1998 through its inclusion in Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) for some offences. Legal protection makes it an offence to:

- intentionally kill, injure or take (capture) a water vole;

- possess or control a dead or live water vole, or any part of a water vole;
- intentionally or recklessly damage or destroy access to any structure or place which water voles use for shelter or protection or disturb Water Voles while they are using such a place;
- sell, offer for sale or advertise for sale live or dead Water Voles

Water voles, their breeding sites and resting places are protected by law. In most cases, work can be planned to avoid harming water voles. If works cannot avoid disturbing them or damaging their habitats, you may be able to get a licence from Natural England.

Otters

Otters are protected under Section 9 of the Wildlife and Countryside Act 1981 (as amended) and revised by the Countryside and Rights of Way Act 2004, making it an offence to:

- intentionally kill, injure or take an otter;
- possess or control any (live or dead) otter, or any part of or anything derived from an otter;
- intentionally or recklessly damage or destroy or obstruct access to any structure or place used for shelter or protection by an otter;
- intentionally or recklessly disturb an otter while it is occupying a structure or place for that purpose;
- to sell, offer for sale, possess or transport for the purpose of sale any (live or dead) otter or part or derivative of an otter;
- to advertise for buying and selling such things.

Furthermore, otters are included on Schedule 2 of the Conservation (Habitats &c.) Regulations (1994), making it an offence to:

- deliberately to capture or kill a wild animal of a European protected species;
- deliberately to disturb any such animal;
- deliberately to take or destroy the eggs of such an animal; or
- damage or destroy a breeding site or resting place of such an animal.

Otters are also listed as a priority species on the UK and Biodiversity Action Plans.

White-Clawed Crayfish

This crayfish is listed under Annex II of the habitats directive and areas are designated as Special Areas of Conservation to protect this species. Outside of this a licence is required to capture this species. It is listed as a priority species under the Biodiversity Action Plan and is a Species of Principal Importance under section 41 of the NERC Act 2006.

Reptiles

Reptiles such as common lizard, slowworm, grass snake or adder are protected under Section 9 of the Wildlife & Countryside Act (1981) as amended. The legislation makes it illegal to deliberately or recklessly kill or injure

any native reptile. This protection therefore requires that reasonable effort be made to avoid harm to reptiles during developments on land occupied by reptiles.

Badger

The Wildlife and Countryside Act (1981) and its subsequent amendment in 1985 made it an offence to take, kill, injure or ill-treat a badger. The badger gained further protection under the auspices of The Protection of Badgers Act (1992) which consolidates all former protective legislation in relation to badgers, except their inclusion on Schedule 6 of the Wildlife and Countryside Act 1981.

Under the 1992 Act, the badger sett is protected against obstruction, destruction, and damage; furthermore, the animal's access to and from the sett must not be impeded. It should be noted that the concept/definition of the sett extends beyond the main sett to include annexe, subsidiary and outlying setts. However, although the badger and its sett are protected (including access to the sett), the wider habitat and foraging ground is not.

Dormice

Dormice are protected from being killed, injured, captured or disturbed and their resting and breeding places should not be damaged or destroyed.

Natural England Licensing - EPS Mitigation Licensing

Licences can be obtained from the Wildlife Management and Licensing Service at Natural England to allow certain activities that would otherwise constitute an offence, for the purposes of development (e.g. destruction of a bat roost, loss of great crested newt aquatic and terrestrial habitat, etc).

Appendix E

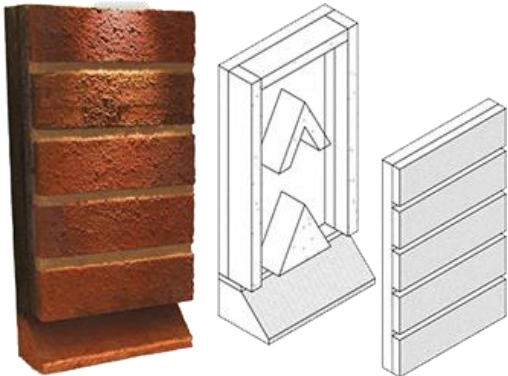



Plant species recorded on site

English name	Scientific name
Annual meadow grass	<i>Poa annua</i>
Beech	<i>Fagus sylvatica</i>
Bramble	<i>Rubus fruticosus</i>
Broad-leaved dock	<i>Rumex obtusifolius</i>
Cleavers	<i>Galium aparine</i>
Cock's-foot	<i>Dactylis glomerata</i>
Creeping buttercup	<i>Ranunculus repens</i>
Creeping thistle	<i>Cirsium arvense</i>
Dandelion	<i>Taraxacum officinale</i>
Dog's mercury	<i>Mercurialis perennis</i>
Dove's-foot cranesbill	<i>Geranium molle</i>
Elder	<i>Sambucus nigra</i>
Field elm	<i>Ulmus minor</i>
Hawthorn	<i>Crataegus monogyna</i>
Hornbeam	<i>Carpinus betulus</i>
Lesser celandine	<i>Ficaria verna</i>
Lords and ladies	<i>Arum maculatum</i>
Meadow buttercup	<i>Ranunculus acris</i>
Nettle	<i>Urtica dioica</i>
Perennial ryegrass	<i>Lolium perenne</i>
Selfheal	<i>Prunella vulgaris</i>
Snowberry	<i>Symphoricarpos albus</i>
Spear thistle	<i>Cirsium vulgare</i>
Sycamore	<i>Acer pseudoplatanus</i>
White dead-nettle	<i>Lamium album</i>
Wild cherry	<i>Prunus avium</i>
Yorkshire fog	<i>Holcus lanatus</i>

Appendix F

Examples of bat and bird boxes

(images sourced from www.nhbs.com, www.habibat.co.uk and www.manthorpe.co.uk)

<p style="text-align: center;">Integrated bat box Habibat Bat Box</p> 	<p style="text-align: center;">Integrated bat box Bat Block</p> 
<p style="text-align: center;">Standalone bat box 2F Schwegler Bat Box (General purpose)</p> 	<p style="text-align: center;">Standalone bat box 1FF Schwegler Bat Box with built-in wooden rear panel</p> 

Recommendations for installing bat boxes:

(Sourced from Bat Conservation Trust www.bct.org)

Ideally, several boxes should be put up facing in different directions to provide a range of conditions.

Locate boxes:

- Where bats are known to feed close to hedges and treelines (some bats use a treeline or hedgerow for navigation, putting boxes near these features may help the bats find the box).
- On trees: boxes should be placed on the trunk of a mature tree, where there is a clear flight line/accessible entrance.
- On buildings: boxes should be placed as close to the eaves as possible.
- As high as possible (ideally, at least 3 to 4m above the ground, where safe installation is possible).
- In sunny places, sheltered from strong winds (usually between south-west and south-east).

Make sure the boxes are secured.

Boxes can be installed on trees using adjustable ties to avoid damaging the trees. Otherwise, timber screw bolts or nails can be used. Aluminium alloy nails are less likely to damage saws and chipping machinery.

Bats need time to find and explore new homes, and it may be several months or even years before boxes have residents. Once bats find a place they want to live they can return over and over again. Droppings on the landing area, urine stains around the lower parts of the box and chittering noises from inside on warm afternoons and evenings are signs of occupation.

<p>Small bird nesting box 1B Schwegler Nest Box</p> 	<p>Small bird nesting box 2H Schwegler Robin Box</p> 
<p>Integrated swift box Swift Block</p> 	<p>Integrated swift box Manthorpe Swift Brick</p> 
<p>Integrated sparrow terrace 1SP Schwegler Sparrow Terrace</p> 	<p>Integrated sparrow terrace Terraced Sparrow Box</p> 

Recommendations for installing bird boxes:

(Sourced from British Trust for Ornithology www.bto.org and Manthorpe www.manthorpe.co.uk)

The highest priority when siting a nest box must be to provide a safe and comfortable environment in which birds can nest successfully.

Tips for putting up a nest box:

- Boxes should be sited 1-3m from the ground, ideally on tree trunks but can be placed on the side of a shed or wall. Avoid areas where foliage obscures the entrance hole.
- Don't place boxes too close to another nest box of the same type, as this may promote aggressive behaviour between neighbours.
- Shelter your nest box from prevailing wind, rain and strong sunlight. The box should face between north and east, and angled vertically or slightly downwards to prevent rain entering.
- Make sure cats cannot get into the box.
- Keep nest box away from bird feeders.
- Use galvanized or stainless steel screws or nails. If fixing boxes to trees, galvanised wire can be used to tie the box to the trunk or hang it from a branch. Make sure to regularly inspect these fittings (every two or three years) to ensure the box remains securely attached.



Tips for putting up house sparrow terraces and swift bricks/boxes:

- Locate ≥ 5 m high on the gable wall of the property and above the level of the insulation zone.
- Where possible, install in locations that are unlikely to receive large amounts of direct sunlight during the hottest times of the day, ideal places include below the overhang of the verge and barge board.

Appendix G

Examples of hedgehog friendly fencing

(images sourced from www.quercusfencing.com and www.jackson-fencing.co.uk)

<p style="text-align: center;">Quercus Fencing</p> <p style="text-align: center;">Hedgehog friendly oak woven fencing panels</p> 	<p style="text-align: center;">Jacksons-Fencing</p> <p style="text-align: center;">Hedgehog friendly gravel board for use with slotted posts</p> 
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Recommendations for installing hedgehog friendly fencing:

(Sourced from Hedgehog Street www.hedgehogstreet.org)

A hedgehog friendly fence should have a gap measuring at least 13cm by 13cm in the gravel board. These gaps allow any hedgehog to pass through but are too small for nearly all pets.

At least one hedgehog friendly fence panel should be located on each side of your garden, to provide unimpeded access.

Almost all fencing materials can be made hedgehog friendly, but may require DIY adaptations. Please note that some concrete gravel boards contain metal rods running along the length of the boards to provide strength and rigidity, and cannot be cut. To overcome this, a gap can be left between the gravel board and post to provide the required gap.

Appendix H

Native species suitable for planting and sowing

Plants should be obtained from specialist nurseries and preferably be of local genetic stock.

Key: (f) – fruit and berry species; (e) – evergreen species; (se) semi-evergreen species; (d) – deciduous species

Trees	
Alder (d)	<i>Alnus glutinosa</i>
Apples (f; d)	<i>Malus spp.</i> (local varieties)
Ash (d)	<i>Fraxinus excelsior</i>
Beech (d)	<i>Fagus sylvatica</i>
Bird cherry (f; d)	<i>Prunus padus</i>
Elder (f; d)	<i>Sambucus nigra</i>
Elm (d)	<i>Ulmus procera</i>
Field maple (d)	<i>Acer campestre</i>
Pedunculate oak (d)	<i>Quercus robur</i>
Rowan (f; d)	<i>Sorbus aucuparia</i>
Pears (f; d)	<i>Pyrus spp.</i>
Silver birch (d)	<i>Betula pendula</i>
Small-leaved lime (d)	<i>Tilia cordata</i>
White willow (d)	<i>Salix alba</i>
Wild cherry (f; d)	<i>Prunus avium</i>
Walnut (d)	<i>Juglans regia</i>

Shrubs	
Blackthorn (f; d)	<i>Prunus spinosa</i>
Buckthorn (f; d)	<i>Rhamnus catharticus</i>
Crab apple (f; d)	<i>Malus sylvestris</i>
Dog rose (f; d)	<i>Rosa canina</i>
Dogwood (f; d)	<i>Cornus sanguinea</i>
Field maple (d)	<i>Acer campestre</i>
Guelder-rose (f; d)	<i>Viburnum opulus</i>
Hawthorn (f; d)	<i>Crataegus monogyna</i>
Hazel (d)	<i>Corylus avellana</i>
Holly (e)	<i>Ilex aquifolium</i>
Honeysuckle (f; d)	<i>Lonicera periclymenum</i>
Spindle (f; d)	<i>Euonymus europaeus</i>
Wild privet (f; se)	<i>Ligustrum vulgare</i>
Yew (f; e)	<i>Taxus baccata</i>

Flowering plants	
Bird's-foot trefoil	<i>Lotus corniculatus</i>
Black knapweed	<i>Centaurea nigra</i>
Common cat's-ear	<i>Hypochoeris radicata</i>
Common sorrel	<i>Rumex acetosa</i>
Common vetch	<i>Vicia sativa</i>
Cowslip	<i>Primula veris</i>
Field scabious	<i>Knautia arvensis</i>
Foxglove	<i>Digitalis purpurea</i>
Lady's bedstraw	<i>Galium verum</i>
Meadow buttercup	<i>Ranunculus acris</i>
Meadow vetchling	<i>Lathyrus pratensis</i>
Oxeye daisy	<i>Leucanthemum vulgare</i>
Primrose	<i>Primula vulgaris</i>
Red clover	<i>Trifolium pratense</i>
Selfheal	<i>Prunella vulgaris</i>
Sweet violet	<i>Viola odorata</i>
Wild daffodil	<i>Narcissus pseudonarcissus</i>
Yarrow	<i>Achillea millefolium</i>

Grasses	
Common bent	<i>Agrostis capillaris</i>
Crested dog's-tail	<i>Cynosurus cristatus</i>
Meadow fescue	<i>Festuca pratensis</i>
Red fescue	<i>Festuca rubra</i>
Rough meadow-grass	<i>Poa trivialis</i>
Small timothy	<i>Phleum bertolonii</i>
Smooth meadow-grass	<i>Poa pratensis</i>
Sweet vernal-grass	<i>Anthoxanthum odoratum</i>
Yellow oat-grass	<i>Trisetum flavescens</i>

Appendix I

Proposed plans



Market Place / Hadeleigh / Ipswich / Suffolk / IP7 5DN
 T / 01473 827992 E / enquiries@wka-architects.co.uk
 Do not scale from drawing, work to figured dimensions only
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 5802_The Old Rectory_Proposal 5.vwx

TITLE Tennis Court relocation plan

PROJECT Proposed Alterations
 The Old Rectory,
 Felsham, Suffolk, IP30 0PW

CLIENT Mr. & Mrs. C. Pugh

STATUS SKETCH

SCALE 1:1250 **SHEET SIZE** A4

AUTHOR FDS **CHECK** CW **ISSUE DATE** 10/03/2023

JOB NO. 5802 **DRAWING NO.** FE_10 **REVISION** A