

Preliminary Ecological Appraisal

of

Manor farm, Norton,

Suffolk

Carried out for:

Theo Arch Tech

 1^{st}

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1. Background to Commission

- 1.1 Abrehart Ecology Ltd was commissioned by Theo Arch Tech to carry out a Preliminary Ecological Appraisal (PEA) of Manor Farm for the proposed cart lodge and lean-to garage, off Ashfield Road in Norton Little Green, Suffolk (central grid reference TL 97614 66451; Fig. 1).
- 1.2 The survey was required to inform a planning application at the site; to include the erection of a new cart lodge and lean-to garage attached to the main house. The site covers an area of 0.2 ha.

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.
 - To provide an assessment of potential impacts to protected species, habitats, or protected sites.

Site Description

- 1.4 The survey area is located on Ashfield Road within the village of Norton Little Green, Suffolk. The proposed construction zone is approximately 0.2 hectares and consisted of the residential dwelling with existing shingle hardstanding access and parking area.
- 1.5 Adjacent to the track to the north and south were areas of mown 'modified' grassland with a sward height of 5cm and limited forb diversity including daisy (*Bellis perennis*), geranium (*Geranium sp.*), cat's ear (*Hypochaeris radicata*), bristly ox tongue (*Helminthotheca echioides*), self-heal (*Prunella vulgaris*), ribwort plantain (*Plantago lanceolata*), and yarrow (*Achillea millefolium*), with scattered trees such as willow (*Salix sp.*), copper beech (*Fagus sylvatica purpurea*), and horse chestnut (*Aesculus hippocastanum*) in the south and north.
- 1.6 The northern, eastern, and southern boundaries consisted of overlapping board fencing while the western boundary was a non-native laurel (*Laurus sp.*) hedgerow.
- 1.7 In the south there was a small, recently installed lined pond adjacent to the house, with an electric pump and a small patch of water lilies (*Nymphaeaceae sp.*).
- 1.8 To the south of the house was a small area in which ornamental plants/shrubs had been planted.
- 1.9 Habitats surrounding the site included large expanses of agricultural land and residential areas associated with the village (see Figure 1). A map showing the habitat types on site can be seen in Appendix II.



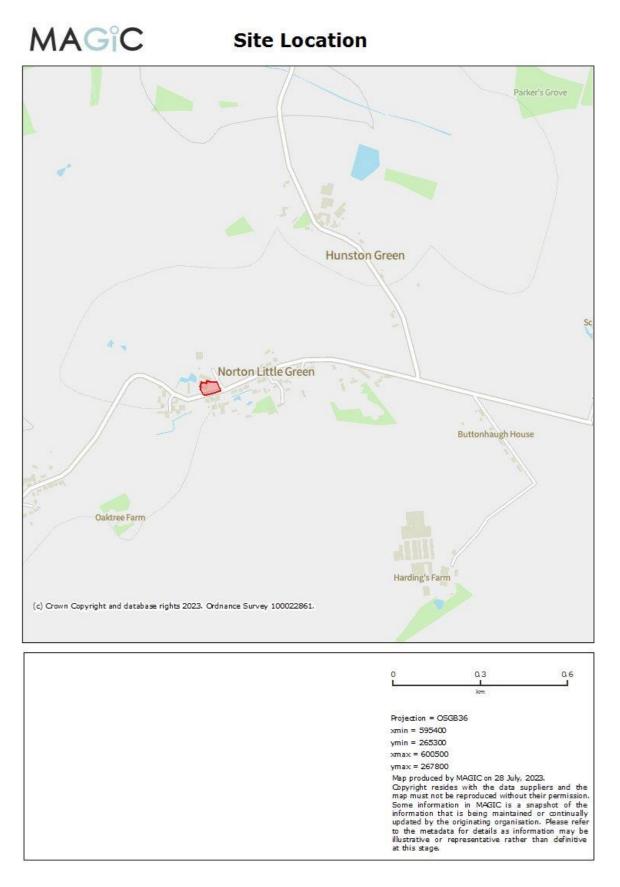


Figure 1. Site location



Relevant Legislation

- 1.10 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).
- 1.11 Public bodies have a duty of responsibility to consider species of principle importance in England as listed in Section 41 of the NERC Act (2006).
- 1.12 The National Planning Policy Framework (NPPF) 2021 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.
- 1.13 "The Local Plan seeks to protect, retain, and enhance the high-quality natural environment and designated landscapes and sites found across the Local Plan area which contribute to the overall success of the area and provides economic and social benefits for all...The Local Plan will seek to foster in new developments and to protect, retain, and enhance in existing developments."
- 1.14 "Development proposals should be accompanied by sufficient information to assess the effects of development on priority habitats and species, protected sites, protected species, biodiversity or geology, together with any proposed prevention, mitigation, or compensation measures..."
- 1.15 Appendix V details legislation which protects species and groups relevant to the site (bats, birds, and hedgehogs).



2. Methods

Desk Study

- 2.1 Data obtained from the Suffolk Biodiversity Information Service (SBIS) were used to conduct a standard data search1 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 26th of July 2023.
- 2.2 A 7km radius search for conservation areas part of the National Site Network, including Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsars was undertaken using MAGIC (http://www.natureonthemap.naturalengland.org.uk/).

Field Survey

2.3 A Preliminary Ecological Appraisal was carried out by Thomas Jordan BSc (Hons) (Natural England Great Crested Newt Class Survey Licence WML-CL08) on the 24th of July 2023 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 100% cloud cover, a light/gentle breeze (Beaufort Scale 2-3), a temperature of 15°C, and 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 included an assessment of the potential for the habitats in and around the site to support protected species.

Survey Limitations

2.4 There were no limitations to the survey.

¹ The standard data search identifies designated sites including:- Ramsar; Special Areas of Conservation; Special Protection Areas; Sites of Special Scientific Interest; National Nature Reserves; Local Nature Reserves; County Wildlife Sites; Regionally Important Geological Sites; Ancient Woodland; and protected and priority species identified by the:- Wildlife & Countryside Act 1981 Schedules 1, 5 & 8; Conservation of Habitats & Species Regulations 2010 Schedules 2 & 5; Protection of Badgers Act 1992; Bonn Convention Appendix 1 & 2; Bern Convention Annex 1 & 2; Birds Directive Annex 1; Habitats Directive Annex 2, 4 & 5; NERC Act 2006 Section 41; UKBAP (both local and national); IUCN Red List species; Red & Amber Bird List; Nationally Scarce / Rare; Locally Scarce / Rare; and Veteran trees.



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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. Species scoped out were dormice, water voles, and otters.

Data Search

- 3.3 There were no statutory designated sites (such as SSSIs or LNRs) within 2 km of the site.
- 3.4 There are five County Wildlife Sites within 2km of the site. These are:
 - Stocking's Wood Stocking's Wood is enclosed by a ditch and bank, a typical feature of ancient woodlands. The presence of internal earthworks is also indicative of the wood's antiquity. In addition, it is surrounded by a hedge composed of blackthorn, elder, field maple and dogwood. The tree canopy is dominated by oak and ash beneath which is a dense understorey of hazel coppice and hawthorn. The main ride runs from the public footpath which borders the eastern margin of the wood, to a recently cleared area in the centre. This section of the woodland has been re-coppiced and is regenerating well. The ride colonised mainly by bramble and nettle, is attractive to butterflies and large numbers of the uncommon, speckled wood butterfly were noted on one visit to the wood. In addition to providing small amounts of coppiced timber, Stocking's Wood is used for pheasant rearing and shooting.
 - Nine-acre Wood Nine Acre Wood is a block of ancient woodland, set amidst arable fields close to another ancient wood, namely Eighteen Acre Wood. A public footpath which runs along the southern edge of the wood also marks the line of the parish boundary between Stowlangtoft and Norton. Nine Acre Wood is dominated by ash, both standards and large coppice. Oak is also present in good quantities. The understorey is composed mainly of hazel coppice although numerous other woody species are present in small quantities for example, field maple, bramble, blackthorn, and hawthorn. In addition, horse chestnut has been planted as an ornamental species. Dog's mercury together with bramble cover the floor of the woodland. A number of wide rides which cross the wood receive more light and therefore support a higher diversity of common woodland plants. Dead wood in the form of fallen branches and old coppice provides suitable habitat for dead wood invertebrates. Nine Acre Wood is listed in the Suffolk Inventory of Ancient Woodland (English Nature).
 - Parker's Grove This small woodland which is set amidst arable fields is listed in English Nature's Ancient Woodland Inventory. A dense hedge consisting of hawthorn, field maple, dogrose, blackthorn, elder, willow and bramble encloses the wood and provides additional and valuable nesting habitat for woodland birds. Oak and ash standards dominate the tree canopy of Parker's Grove. The understorey is composed of neglected hazel coppice with occasional hawthorn and elder. In addition, a number of aspen clones



can be found scattered throughout the wood. The woodland floor is colonised by a dense growth of dog's mercury, bramble and nettle interspersed with attractive wildflowers, for example violets and self-heal. Parker's Grove is a good example of a typical neglected coppice with standards woodland.

- Brown's wood Brown's Wood, located amidst large arable fields, is an important feature in the landscape. It is linked to nearby Parker's Grove by a public footpath which runs along the margins of both woods. A ditch, possibly medieval in origin surrounds this small woodland which is dominated by ash and oak. Brown's Wood, which is listed in English Nature's Inventory of Ancient Woodland, has a rather open structure due to a sparse shrub layer composed mainly of hazel coppice and hawthorn. The woodland floor is also sparsely vegetated and where present the ground flora is dominated largely by dog's mercury. In addition, a number of foxglove and orpine plants can be found particularly at the entrance to the wood although it is thought that these have been planted. A path constructed by the owner from broken tiles and brick meanders through the wood. Additional management work in Brown's Wood has included the clearance and removal of standing and fallen dead wood.
- Hunston wood Hunston Wood is listed in the Suffolk Inventory of Ancient Woodland compiled by English Nature. Set amidst arable fields, this extensive area of woodland is an important feature in the landscape. Since access to the wood was restricted, a detailed survey was not carried out. However, it is known that the wood supports a good diversity of woody species. In addition to ash and oak which are abundant in the tree layer, Hunston Wood also supports aspen, birch, elder, hazel, dogwood, and hawthorn. The ground flora is dominated by dog's mercury. Hunston Wood is largely neglected although some small-scale coppicing work has taken place recently.
- 3.5 There were no National Site Network conservation areas (Ramsar, SAC, or SPA) 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.

4. Protected and Priority Species Within the Site & Potential Impacts and Recommendations

Flora

- 4.1 No species of interest were recorded during the survey and close mown grassland was considered unlikely to support a rich flora. The desk study highlighted several species of rare plant have been previously recorded within 2km of the site, this included bluebell (*Hyacinthoides non-scripta*) which is listed on Schedule 8 of the Wildlife and Countryside Act 1981. Almost all the rare and protected species highlighted within the data search are associated with woodland, marshland, arable land, heathland, and species-rich meadows.
- 4.2 The proposed development includes the creation of a new cartlodge building and lean-to garage structure attached to the main dwelling. The construction area covers an area of species-poor mown grassland and shingle hardstanding; this will result in the loss or change of use of these habitats. The lost habitat is not listed within Section 41 of the NERC Act 2006 as being of principal important to the conservation of biodiversity within the UK and was not considered suitable to provide opportunities for protected species.

4.3 No further botanical surveys are required.

Badgers

- 4.4 The site was visually searched for evidence of the presence of badgers (*Meles meles*), including setts, footprints, latrines, and snuffle marks. Habitats within the site were suitable for foraging animals; however, no evidence was recorded. Where possible, habitats within 30m of the construction zone were assessed. No further evidence was found and there were no obvious badger runs leading into hedgerows.
- 4.5 No records of badgers were returned within the desk study from within 2km of the site boundary.
- 4.6 No further survey is necessary; however, precautionary measures detailed in paragraph
 4.28 will be adhered to, to avoid disturbing nocturnal species and foraging mammals.

Bats

- 4.7 There was one section of the main dwelling included within the construction zone, this is detailed further within the table below. None of the mature trees within the wider site boundary will be impacted through the development; therefore, there will be no impacts to possible roosting bats within these. The section of building set for the replacement of the windows (in the western section) was also considered to have negligible bat roost potential. Although the site offered limited foraging potential as the overall extent of the grassland is small and the habitats on site were very unlikely to support assemblages of invertebrates (prey species), the boundary features (tree belts) could be used by foraging and commuting bat species.
- 4.8 The data search returned records of at least nine species of bat within 2km of the site; these were barbastelle (*Barbastella barbastellus*), serotine (*Eptesicus serotinus*), Myotis sp., common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), pipistrelle species, noctule (*Nycatalus noctula*), long-eared bat species, and brown long-eared (*Plecotus auritus*) bats within 2km of the site.



Photos	Notes
<image/>	 Building 1 The works area included the north-eastern section of the main dwelling (garage and loft space). The building was of brick and overlapping wooden board construction with a pitched, clay tile roof. This section of the building appeared to be modern and in good overall condition. There were no gaps, large enough for bats, found between the overlapping wooden boards. No cracks or holes were noted within the external brickwork. The window frames were well sealed, with no cracks or gaps seen. The roof tiles were all in good condition with no lifted, broken, or missing tiles recorded. No droppings, feeding remains or bats were found throughout the survey.

4.9 No further survey is necessary; however, the site will incorporate sensitive lighting – ensuring the boundaries are not illuminated as it could be an important commuting corridor for nocturnal species. This will follow guidance provided by the Bat Conservation Trust and Institution of Lighting Professionals (Bats and artificial lighting at night, 2023), to ensure foraging and commuting bats using adjacent habitats are not negatively impacted. Lighting measures should also be applied to temporary security lighting used during the construction phase. This will include low pressure sodium lamps, with hoods, cowls, or shields, to prevent light spillage.



Birds

- 4.10 The mature trees and sections of hedgerow within the wider site boundary provided excellent nesting and foraging habitat for a range of bird species. A number of swallows (*Hirundo rustica*) were seen foraging over the site, and various finch species were heard within the hedgerows and adjacent habitats.
- 4.11 The grassland lacked a suitable structure for ground nesting species and appeared regularly disturbed and was in very close proximity to a vehicle access track.
- 4.12 The data search returned a high number of records of common and protected species that have been observed in the local landscape. The dense scrub at the boundaries and along fence lines offered nesting and foraging habitat for BoCC red listed and NERC S41 species such as dunnock (*Prunella modularis*) and linnet (*Linaria cannabina*).
- 4.13 As the works area does not contain suitable nesting habitat, no further survey is necessary; however, if the trees or hedgerows within the wider ownership boundary are to be impacted then this habitat will be cleared outside the nesting bird season or following a nesting bird survey (carried out by an experienced ornithologist/ecologist); should any active nests be found, then clearance will stop until young have fledged.

Great Crested Newts & Reptiles

- 4.14 Habitats recorded throughout the site were considered unsuitable for herptiles including GCN (great crested newts). The short, mown, modified grassland did not have structure for either foraging or sheltering amphibians; and did not offer opportunities for reptiles (basking), as there were no areas of scrub or refugia within the site.
- 4.15 There was a single pond within the ownership boundary, this was a small recently crerated manmade pond with poor water quality. It also had an electric water pump running and was therefore unsuitable for supporting breeding amphibians. There were also eighteen other ponds highlighted on OS maps within 500m of the site boundary. Nine of these were south of Ashfield Road and were considered disconnected ecologically from the site. The other ponds were close to areas of suitable terrestrial habitat (ditches, higher quality grassland, scrub and woodland); therefore, it was considered that any amphibians in the local area would be using this high-quality habitat.
- 4.16 There were no records of GCN returned in the data search; amphibians recorded in the local area were common frog, smooth newt, and common toad a NERC S41 species of principal importance in England. No species of common and widespread reptiles have been recorded in the local area.
- 4.17 As the site lacked suitable herptile habitat and there were no records of GCN or reptiles from the local area, no further survey is considered necessary.

Hedgehogs

- 4.18 Grassland habitats within the site offered potential foraging habitat for hedgehogs; the shorter grassland provided good access to potential prey items. The small areas of ornamental shrub and the hedgerow offered an extension of this foraging habitat and could also be utilised as a potential commuting corridor. Fallen leaves from deciduous trees could provide nest building material.
- 4.19 Although no evidence of hedgehogs was recorded during the survey, the data search returned ten records of hedgehogs within 2km of the site from 2012 to 2022. The nearest of these records was from approximately 60m south of the site boundary.



4.20 No further survey is necessary; however, as the site provides suitable foraging habitat for foraging mammals, and hedgehogs have been recorded in the local area, construction works should 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 it will be directional to avoid boundary features (trees and hedgerows).

Invertebrates

- 4.21 The mown grassland areas were unsuitable for supporting assemblages of common and rare/protected terrestrial invertebrates. Much of the habitat was disturbed, and there was limited forb, ruderal, or scrubby/woody species. Much higher quality and abundant habitat was available within the mature tree line.
- 4.22 The data search included records of several S41/UKBAP moths, and rare butterflies such as white admiral (*Limenitis camilla*) butterflies and Kent bent wing (*Phyllocnistis xenia*) moths which are listed as 'Vulnerable' on the England Red List. However, there was not adequate habitat on site to support either of these species as, white admirals require areas of deciduous woodland while Kent bent wings require areas of scrub and hedgerow.
- 4.23 No further survey is necessary.



5. Conclusions

- 5.1 The preliminary ecological appraisal found the Site contained habitats suitable for supporting protected species such as foraging badgers, bats, and birds (it was not found to be suitable for roosting, resting, or sheltering animals). Hedgehogs are listed as a Species of Principal Importance in England (and listed on Schedule 6 of the Wildlife and Countryside Act 1981 making it illegal to kill or injure through certain methods) and so should also be considered as part of this application. The following measures will be implemented to minimise the risk of harm to individual animals:
 - Covering of excavations and/or provision of exit ramps is recommended during works to prevent harm to mammals.
 - If hedgerow or tree clearance is required, then this is to be carried out outside the breeding bird season or following a nesting bird survey by a suitably experienced ecologist.
 - Sensitive lighting measures to prevent disturbance to foraging bats or other nocturnal species. An experienced ecologist will liaise with construction staff to inform them of these measures.
- 5.2 As detailed in Paragraphs 1.9 and 1.10, the Local Policy requires new developments to have consideration for priority habitats and species, protected sites, protected species, and biodiversity. The proposed creation of the cart lodge and lean-to garage will not cause significant harm or disturbance to such features. The development will follow the mitigation hierarchy and avoid negative impacts to biodiversity wherever possible. Any remaining short-term impacts (such as the removal of very limited areas of hedgerow or scrub) or potential long-term impacts (such as disturbance to ecological corridors) will be adequately mitigated through the above measures.
- 5.3 In addition to having a negligible impact to biodiversity within the construction boundary, the development will not negatively impact species or habitats within the wider ownership boundary or adjacent land. There will be no impact on SSSIs or National Site Network conservation areas and no requirement for a Habitat Regulations Assessment.



6. References

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http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx



Appendix I: Site Photos











Appendix II: Species Lists

Plants

Species Achillea millefolium Aesculus hippocastanum Bellis perennis Cerastium fontanum. Cirsium vulgare Fagus sylvatica purpurea Geranium sp. Helminthotheca echioides Hypochaeris radicata Laurus sp. Malva sp. Medicago arabica Nymphaeaceae sp. Plantago lanceolata Potentilla reptans Prunella vulgaris Quercus robur Rosa sp. Salix sp. Sambucus nigra Senecio vulgaris Sherardia arvensis Sonchus oleraceus Taraxacum sp. Tilia sp. Trifolium repens





Appendix III: Figures

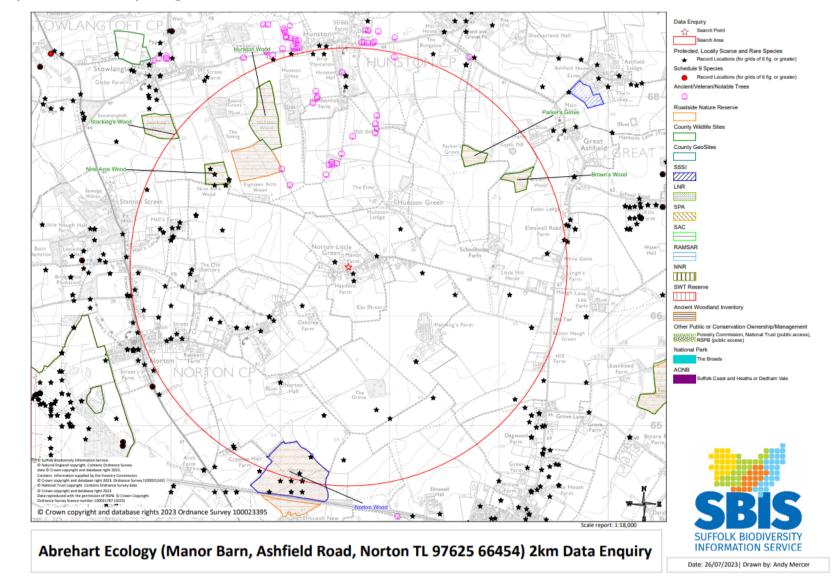
Phase 1 Habitat Map





Theo Arch Tech

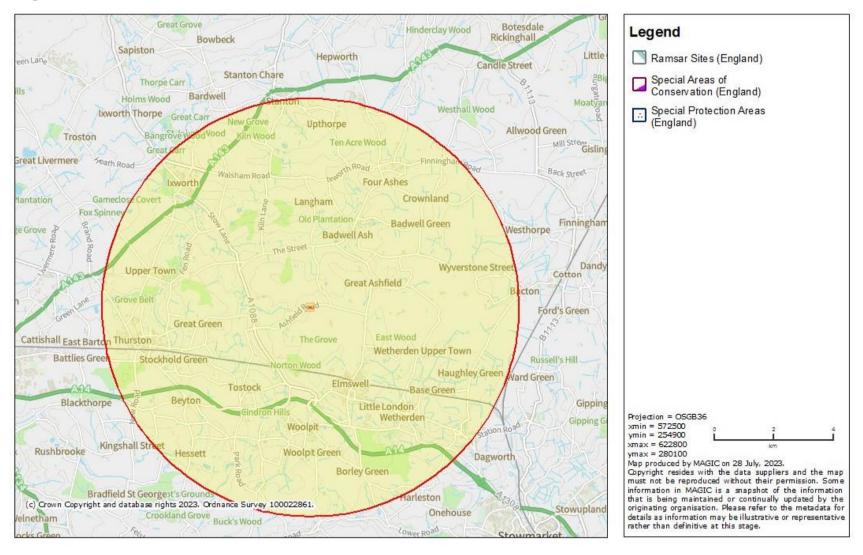
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Statutory and Non-Statutory Designated Sites within 2km of the Site



European Conservation Sites within 7km of the Site





Appendix IV: Relevant Protected Species Legislation

Species	Legislation	Protection
Bats	 Conservation of Habitats and Species Regulations (2010) (as amended) Wildlife and Countryside Act (WCA) (1981), Schedule 5 (as amended) Wild Mammals Act (1996) 	It is an offence to: 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	 Conservation of Habitats and Species Regulations (2010) (as amended) Wildlife and Countryside Act (WCA) (1981), Schedule 5 (as amended) 	 It is an offence to: 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
Widespread Reptiles	• Wildlife and Countryside Act (WCA) (1981), Schedule 5 (as amended)	 It is an offence to: Intentionally kill or injure a reptile Sell, offer or expose for sale, have in possession or transport for the purpose of sale any live or dead reptile or any part of, or anything derived from, a reptile
Birds	• Wildlife and Countryside Act (WCA) (1981 (as amended)	 It is an offence to: 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 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

