Extended Phase 1 Habitat Survey and Ecological Appraisal
56 Quadring Road
Donington
Lincolnshire
NGR TF216 353

Survey by
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smas worksafe consultant www.smasltd.com as recognised by SSIP SAFETY SCHEMES IN PROCUREMENT	Report prepared by: C Barker	Date Issued: 08 August 2014
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Phase 1 Habitat Survey and Ecological Appraisal, 56 Quadring Road, Donington

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Non-Technical Summary

The site surveyed comprises a triangular parcel of land containing a residential house and gardens with outbuildings and an orchard, located at 56 Quadring Road, Donington, Lincolnshire, centred at NGR TF216 353. The Client has requested an ecological survey of the site to determine whether there is anything of ecological value or any evidence of protected species present at the site. An inspection of the site and the immediate surrounding areas was carried out in July 2014.

The site contains a house and garden area, with a vegetable garden, a small grass paddock and a tiny orchard adjacent to the house. The existing house is to be removed and replaced with a new residential dwelling. The site area is entirely separated surrounded by roads and occupies a triangular plot of land adjacent to Quadring Road. It has been a house and garden for a considerable length of time. To the north west of the house is a small open paddock used as an extended garden area for amenity purposes. To the south of the house is a small orchard containing apple and pear trees.

The house is a detached, two storey dwelling with a pitched roof. It is of brick construction and has been rendered and painted white on the exterior. This provides an excellent surveying surface. The windows and sills are white uPVC. The roof appears in reasonable condition and has no significant gaps, slipped or missing tiles noted and the rendering and flashing is also in good repair. A small lawn and amenity garden has been planted around this building and there is a small greenhouse and brick shed. This building displays few significant features that would be of interest to bats but is in a good location and has low roost potential.

Within the vegetable garden there are a number of wooden sheds with pitched or sloping roofs. These were structures were closely inspected and there is no evidence of any bat or bird activity associated with these. All of the outbuildings in the vegetable garden area are considered to have negligible roost potential.

A review of the available data obtained from the Lincolnshire Biological Records Centre confirms that the site is not a statutory or non-statutory site and it is not located in close proximity to any such site. There is a Local Wildlife Site at ‘The Yews’ located 500m to the south along Quadring Road but this has no connectivity or links to the site being assessed. There are no records of protected species at the site and the survey did not find any evidence of such species during the survey. The site area has limited potential to provide cover or foraging for wildlife. The position makes it inaccessible to most wildlife except for bats and birds. There are no unusual or locally significant habitats within the site area of high ecological value and the site is not positioned to provide a strategic link between other habitats of high value.

In terms of habitat loss, there are no habitats of high or significant value on the site to be lost as a result of any development. The trees along the front of Quadring Road have landscape amenity value and any development proposal should seek to retain these.

As no evidence of protected species or significant habitats has been found, no further surveys are recommended for planning purposes.

Part 1: Site Details

1. Introduction

1.1 Site Description and Location

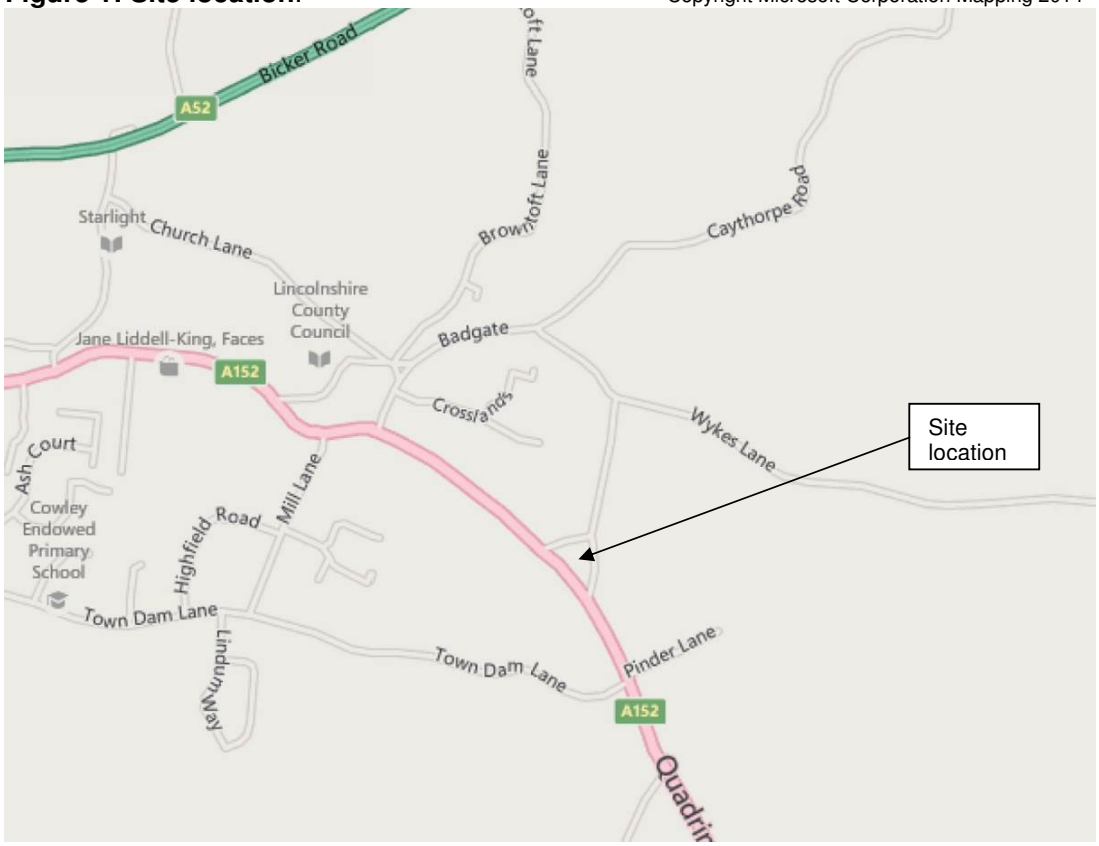
The site surveyed comprises a triangular parcel of land containing a residential house and gardens with outbuildings and an orchard, located at 56 Quadring Road, Donington, Lincolnshire, centred at NGR TF216 353. The location of the site is shown on the plan within **Figure 1** and an aerial photograph has been provided within **Figure 2** to place the site in context.

The Client has requested an ecological survey of the site to determine whether there is anything of ecological value or any evidence of protected species present at the site as there are proposals to redevelop the site. An inspection of the site and the immediate surrounding areas was carried out in the afternoon of 09 July 2014. A photographic record of key areas is included alongside target notes within the report. The trees within the site area have ben surveyed using BS5837:2012 methodology and detailed descriptions of the trees are provided in the Tree Survey Report prepared by CBE Consulting (ref P673/0714/01). This report is to read in conjunction with the Tree Survey report.

A photographic record of the key significant areas within or adjacent to the site is provided in Section 3 and an indicative species list is included within **Appendix 1.**

Figure 1: Site location.

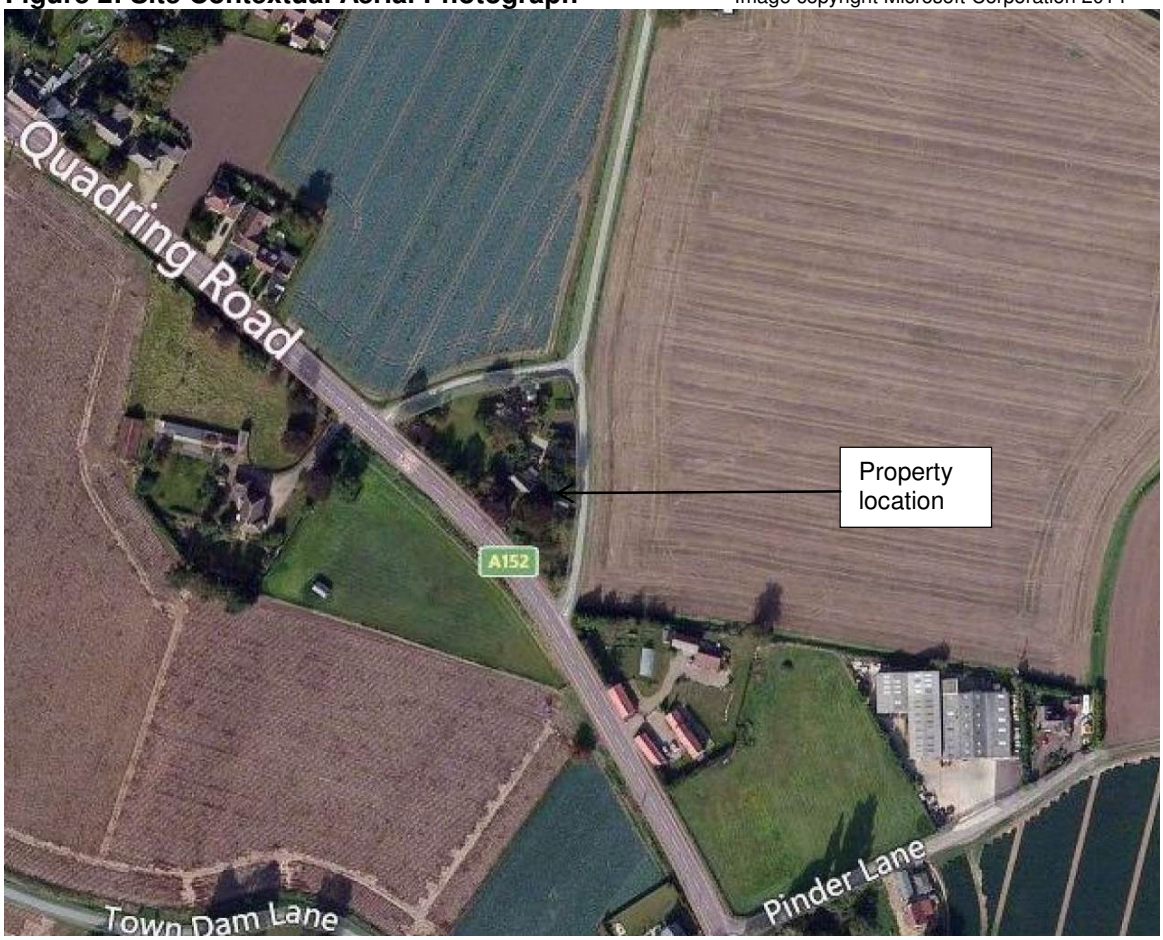
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The site area is entirely separated surrounded by roads and occupies a triangular plot of land adjacent to Quadring Road. It has been a house and garden for a considerable length of time. To the north west of the house is a small open paddock used as an extended garden area for amenity purposes. To the south of the house is a small orchard containing apple and pear trees. This is not a commercial orchard but serves the house. To the north east of the house is a lawn within which is a vegetable garden.

The property is surrounded on all sides by open arable land as can be seen in the photograph below. To the north is the village of Donington. The site does not lie within the boundary of a Conservation Area and the trees within it are not protected under a Tree Preservation Order.

Figure 2: Site Contextual Aerial Photograph Image copyright Microsoft Corporation 2014



1.2 Objective of the Report

This report is an extended Phase 1 Habitat Survey and ecological appraisal. The objective of the ecological appraisal is to identify the habitat(s) present on, and surrounding, the site area being assessed. Any development of the site will require planning approval and this report has been prepared to provide information as part of the planning application process. To this end the report is required to comply with the recommendations and principles set out in the National Planning Policy Framework, March 2012 (NPPF). The report contains Biological Records and has been prepared to meet the standard required by BS42020 (British Standard for Biodiversity and Development).

The NPPF issued in March 2012 sets out the Government's objectives for planning in regard to the protection of habitats and biodiversity. The planning objectives in relation to biodiversity and the natural environment are stated within paragraph 109 of the NPPF and are as follows:

"The planning system should contribute to and enhance the natural and local environment by:
- *protecting and enhancing valued landscapes, geological conservation interests and soils;*
- *recognising the wider benefits of ecosystem services;*
- *minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including*

by establishing coherent ecological networks that are more resilient to current and future pressures;"

Within the NPPF the planning policy context requires that:

"*Planning policies and decisions should be based on up to date information about the natural environment and other characteristics of the area including …… an assessment of existing and potential components of ecological networks. A sustainability appraisal which meets the requirements of the European Directive on strategic environmental assessment should be an integral part of the plan preparation process, and should consider all the likely significant effects on the environment, economic and social factors*". NPPF Paragraph 165

This ecological appraisal provides information on the existing ecological and biodiversity value of the land on the site and also reports any evidence of protected species or significant habitats present. It has been provided to provide information to the Planning Authority in order to help meet the requirements of the NPPF and enable the Authority to assess the site area in accordance with the Code of Practice within BS42020. The report also identifies any habitats or species present that require more detailed surveys prior to any improvements being undertaken.

Part 2: Methodology and Survey Results

2. Appraisal Methodology

2.1 Baseline Study

Within NPPF Paragraph 7 it states that; "*There are three dimensions to sustainable development: economic, social and environmental." The environmental role includes "contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity....*"

The biodiversity of a site area and the potential presence of protected species are factors relevant to all developments irrespective of the size scale and will apply to any development on the site being assessed. Available information on the baseline ecology of the site and its surroundings has been obtained and records relating to protected species have been reviewed. Details are included within **Appendices 2** and **3**. In addition, an indicative species list of plants found on the site is provided in **Appendix 1**. These data sources have been reviewed and the character and nature conservation value of habitats and species assessed. The aims of this appraisal of information are:

- To characterize all the existing available information regarding habitats and species that may be present at the site and provide up to date information about the environmental characteristics of the site area;
- To identify any habitats potentially present of nature conservation value in terms of local, regional and national context and within the context of local, regional and national policy; and,
- To identify any areas of ecological interest in order to either a) make recommendations to minimize the potential impact of any site works, or b) identify the need for a further survey work.

Following the appraisal of the available information, a site inspection has taken place to obtain specific site data at the site.

2.2 Habitats

The site was surveyed during a bright sunny day on 09th July 2014 using the extended Phase 1 Habitat Assessment methodology as adopted by Natural England (Joint Nature Conservation Committee 1993) and in accordance with the Guidelines for Preliminary Ecological Appraisal (2012) issued by the Institute of Ecology and Environmental Management (IEEM) and BS42020 (British Standard for Biodiversity and Development). The survey required a systematic walkover of the site to classify the habitat types present. A habitat base map and target notes have been prepared and included as **Figure 3** within section 3 of this report.

2.3 Protected Species

During the survey of the site, observations and identification or signs of any species protected under the Conservation (Natural Habitats &c) Regulations 2010 (incorporating regulations previously contained within Part 1 of the Wildlife and Countryside Act 1981) were noted.

The site contains buildings and large trees with mostly negligible or low potential for roosting bats (see the BS5837 Tree Survey Report) and is in an area where bats are known to be actively foraging. Inspection of the trees and buildings, including the internal roof structures was undertaken.

A methodical inspection was carried out to look for any evidence of protected species using the site and to identify any habitats with potential to provide significant shelter or foraging opportunities for these. The survey was carried out by Christopher Barker, an experienced ecological consultant, licensed Bat Worker and Chartered Environmentalist

2.4 Consultations

A review of the available data obtained from the Lincolnshire Biological Records Centre confirms that the site is not a statutory or non-statutory site and it is not located in close proximity to any such site. There is a Local Wildlife Site at 'The Yews' located 500m to the south along Quadring Road but this has no connectivity or links to the site being assessed.

The biological records provided by the Greater Lincolnshire Nature Partnership indicate that there are known to be a number of bird species using the area including Yellowhammer, Linnet, Fieldfare and Skylark and it is possible that these species may find suitable nesting sites or significant foraging areas within the site.

No reports of reptiles such as Grass Snake, Slow Worm or Common Lizard are recorded within the 1km search area and there are no significant areas of suitable habitat present on the site to support a significant reptile population.

The presence of bats in the area is well recorded and buildings within and surrounding Donington village contain a number of roosts and there have been many sightings and records of grounded bats. The site area contains a number of buildings and mature trees that could potentially provide roosting locations and foraging areas for such species.

The full biological records are provided as Appendix 2 (separate) and a summary of the protected species records provided by GLNP are included within **Appendix 3.**

3. Survey Findings

The site is essentially a residential house and surrounding large garden. However, the garden areas are divided into different uses. To the north of the house is an open paddock which is now managed as a garden. To the south of the house is a small orchard that serves the house. To the north east is a small garden area in which a vegetable garden has been created with small

wooden outbuildings. The house and amenity garden is situated fairly centrally within the plot. The habitats within the site are described in more below with photographs to provide a visual description of the character of the areas. A Site Plan is provided as **Figure 3** below**.** The area was inspected by visual walkover.

3.1 Habitat Classifications and Target Notes

Target Note 1: House and Outbuildings



Front of house



Rear of house



Loft of main house



Loft of main house

The main house is a detached, two storey dwelling with a pitched roof. It is of brick construction, but has been rendered and painted white on the exterior. This provides an excellent surveying surface. The windows and sills are white uPVC. The roof shows no evidence of significant gaps, slipped or missing tiles visible from the exterior and the rendering and flashing is also in good repair.

A small lawn and amenity garden has been planted around this building and there is a small greenhouse and brick shed. This building displays few significant features that would be of interest to bats and has negligible roost potential. The garden contains common amenity species such as Feverfew, Sedum, Comfrey, Cotoneaster, Spotted Laurel, Hazel, Winter Viburnum, Honeysuckle, Phlox, Juniper, Yellow Archangel and Phormium.

Within the vegetable garden is a small series of wooden sheds with pitched or sloping roofs (shown in the photograph below). These were structures were closely inspected and there is no evidence of any bat or bird activity associated with these. All of the outbuildings in the vegetable garden area are considered to have negligible roost potential.

The house, outbuildings and amenity garden are considered to be a combination of Building (JNCC J3.6) and amenity garden (JNCC J1.1 Cultivated land) and contain no features of high ecological value.


Sheds within the vegetable garden

Target Note 2: Vegetable Garden




The vegetable garden comprises mown amenity grass and an area regularly cultivated and sown to vegetables and fruit. This is an intensively managed parcel of ground with no significant areas of ecological interest. Common vegetable and fruit species dominate this ground with adjacent lawns. This area is classed as JNCC J1.1 - Cultivated land.

Target Note 3: Paddock Area




The paddock area was previously grazed. The sward in this area is now regularly mown and it is used as an extension of the garden. It is a small area of level neutral improved grassland almost

entirely surrounded by trees and potentially a good area of sheltered foraging for bats and birds. The dense sward is dominated by agricultural/amenity grass species such as Perennial Ryegrass (*Lolium perenne*), Meadow Grass (*Poa* sp) and Bent (*Agrostis* sp) and contains common forbs found in improved grassland including Dandelion (*Taraxacum officinale*), Plantain (*Plantago lanceolata*), Chickweed (*Stellaria media*), Speedwell (*Veronica agrestis*), Daisy (*Bellis perennis*) and Buttercup (*Ranunculus repens*). Along the margins are taller ruderals such as Thistle (*Onopordum acanthium*), Nettle (*Urtica dioica*), Feverfew (*Tanacetum parthenium*), Poppy (*Papaver orientalis*), Dock (*Rumex obtusifolius*) and Bindweed (*Calystegia sepium*). There is no indication of rare or unusual plant communities although it is likely that common bulbs and spring amenity plants are present.

This area is classed as Neutral semi-improved grassland (JNCC B2.2) as a result of the character of the sward and intensive management it now experiences. It could also be considered amenity grassland (JNCC J1.2) since it is now put to that use.

Target Note 4: Small Orchard



The orchard is a small triangular area to the south of the house adjacent to Quadring Road that contains a variety of young and mature fruit trees including apple and cherry. This small area is not a commercial orchard and the ground beneath the tree canopies is laid to amenity lawn and regularly mown as can be seen in the photograph above. There is little cover and very little diversity within the sward. The boundaries are defined by open wooden fences.

Target Note 5: Boundary and Garden Trees

Along the boundary of Quadring Road and scattered around the garden areas are trees providing screening to the buildings and gardens within the site area. The Quadring Road boundary has a dense line of Ash (*Fraxinus excelsior*), Cypress (*Chamaecyparis* sp), Rowan (*Sorbus acuparia*), Holly (*Ilex aquifolium*) and Cherry (*Prunus avium*) with some unusual amenity species such as Stag Horn Sumach (*Rhus typhina*) also present. One large mature Purple Beech (*Fagus sylvatica purpurea*) occupies a position in front of the house of the roadside and this specimen is of high value. There are two large Sycamore (*Acer*

pseudoplatanus) trees at the northern tip of the site near the junction of Quadring Road and Wykes Lane, one a purple leaved variety, that provide a 'visual anchor' and these trees are also of high landscape value. The remaining trees are juvenile or semi-mature specimens.





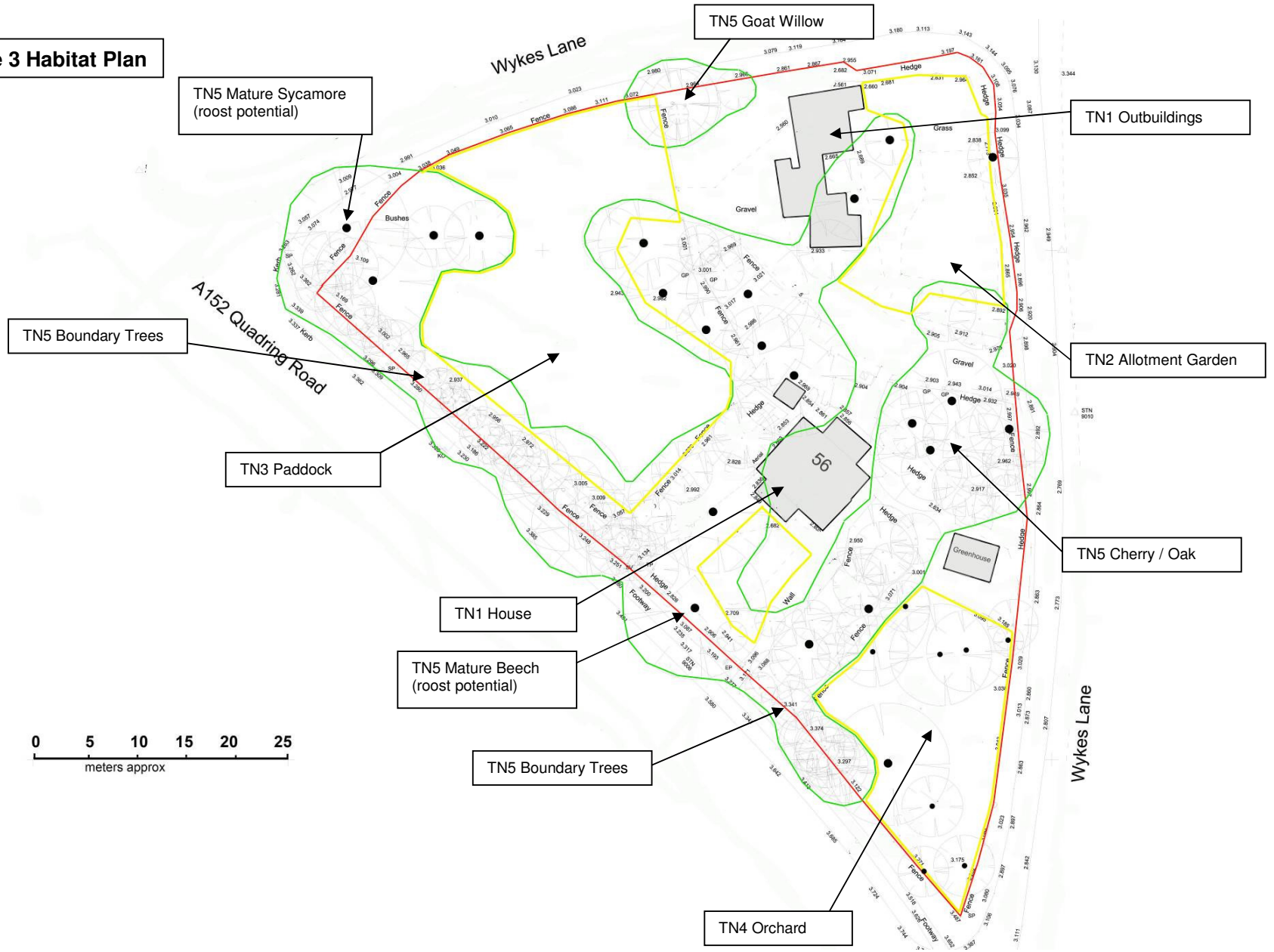




Around the house is a dense canopy of Cherry (*Prunus avium*), Damson (*Prunus domestica*), Gum (*Eucalyptus gunii*) and fruit trees mixed in with the occasional Cypress planted presumably for visual amenity purposes. One significant Oak (*Quercus robur*) tree is present at the front of the house and this is recommended for retention. To the north of the house between this and the paddock is a stand of Birch (*Betula pendula*) and Cypress.

There are no veteran trees present in the site area but the Beech, Sycamore and Oak trees noted above are the largest specimens of mature age and highest value. These trees were assessed for roosting bats and no physical evidence of bats was found. These significant trees are in boundary positions and are not proposed for removal and therefore further assessment is unlikely to be required.

Figure 3 Habitat Plan



3.2 Evidence of Protected Species

No indication of protected species was found anywhere on the site. No tracks or trails were seen in any location within the boundary vegetation or the garden area. The house and buildings were externally and internally inspected for evidence of bats and birds but no indications were found.

Herpetofauna: The walkover survey was completed on a grid pattern looking for evidence or indication of reptiles. The centre of the site where the house and amenity garden is situated offers little cover and limited foraging potential. The vegetable garden is similarly quite open and the lawn adjacent to this is regularly mown.

The paddock and small orchard areas have longer grass and boundary areas with shrubs and tree present. There is some limited potential for reptiles to find shelter and foraging in these areas. However, the site is entirely surrounded by open arable fields and is an island of vegetation bounded by roads, so it is considered to be quite isolated. Given the small size of the site there is considered to be negligible potential for a significant reptile population to be present.

The afternoon weather conditions were ideal to complete a search for basking reptile search, bright and sunny with temperatures around 14 -15 degrees during the inspection. No indication of any reptiles was seen in any location. It is possible that a small number of reptiles such as Common Lizard could be present around the boundaries but there is no evidence of a significant population or extensive areas where refugia or hibernacula are present. No 'slough' was found and no evidence of grass snake was seen in any location. Further reptile surveys are not recommended.

The site area contains no water features or wetland areas to support an amphibian population and the cover within the site is minimal and offers little foraging potential. No further surveys for amphibians are recommended.

Chiroptera: The buildings on site have been inspected and all are assessed as having 'low' or 'negligible roost potential'. The house is rendered and painted white providing ideal surfaces to search for evidence of bats externally. Internally, the loft was inspected and there is felting under the roof tiles but this is deteriorating and badly torn in places. The loft space is free of any evidence of bats and criss-crossed by cobwebs. The wooden buildings all have low pitched roofs which did not provide any significant roosting opportunities.

The trees along Quadring Road have also been inspected and no features of potential interest have been identified. The majority of these trees are young or semi-mature specimens. Some larger trees such as the Purple Beech facing Quadring Road and the Sycamore at the northern point of the site have been assessed as having 'moderate roost potential' although there is no physical evidence to indicate bats are present within these trees. The presence of a significant roost is within the house or the trees nearby is unlikely.

Transient roosting by individual bats such as Pipistrelle is possible. It is recommended that the house and trees nearby should be inspected again prior to demolition / felling to confirm this situation has not changed over the period between this survey and any approved works commencing as a further precautionary measure.

Birds: The trees and vegetation within the garden area and paddock, and along the Quadring Road boundary were inspected for evidence of nesting birds. Whilst no active nests could be seen, bird nesting activity is considered likely in this location as the site is some distance from the village edge and therefore unlikely to be heavily predated by cats or suffer significant regular disturbance. Ground nesting birds are less likely but tree and hedgerow nesting species are potentially able to use suitable areas within the garden. A nesting bird survey is recommended if any vegetation clearance takes place during the bird breeding season.

Mammals: The inspection of the boundary areas, bare ground within the garden / landscaped areas did not find any burrows or holes in any location. No tracks or droppings of any kind other were found. It is unlikely, considering the position and use of this area, that any significant wildlife species are present on this site.

3.3 Ecological Constraints and Opportunities

The simplicity of the site does not require a detailed Ecological Constraints and Opportunities Plan (ECOP) to be prepared. The only significant landscape features within the site are the boundary trees along Quadring Road. There are no features of high ecological value in this location.

In terms of opportunities, the improvement of canopy cover and biodiversity along the margins of the site would potentially be beneficial and this may be achieved if any new garden areas are planted with native trees and shrubs that will offer improved cover and foraging opportunities to local wildlife (bats and birds). The Wykes Lane boundary could be better defined by hedgerows rather than wire fencing and such a feature would provide cover for wildlife.

Part 3: Ecological Appraisal

4. Impact of Proposed Site Improvements

Within the NPPF 2012, guidance on the provision or retention of biodiversity within any proposed areas for development and measures to ensure the safeguarding of protected species are provided.

As part of the assessment of this site it is understood that:

a) All of the garden existing buildings within the site will potentially be demolished;
b) The existing main house will be demolished and replaced;
c) The tree canopy along Quadring Road will be maintained to screen the site area from road traffic;
d) the existing access from Wykes Lane will be retained and serve the new house to be constructed within this plot of land, therefore making the removal of any boundary vegetation unnecessary
e) Key trees if high visual amenity value identified within the Tree Survey report will be retained to maintain canopy cover across the site area.

In ecological terms the site area is an intensively managed garden and contains no habitat areas of significant value. In landscape amenity terms, retaining tree cover along the Quadring Road boundary will maintain the screening to the site and the impression of significant 'greenery' in the location.

4.1 Impact of the Proposals on Site Biodiversity

The level of biodiversity within the site being assessed must be a consideration in determining the *'impact on biodiversity'* that may arise from any development on the site. Within the NPPF Paragraphs 114 and 117 state that:

"Local planning authorities should..... set out a strategic approach...., planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure; (114) and,

"...minimise impacts on biodiversity and geodiversity by promoting the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets, and identify suitable indicators for monitoring biodiversity….; (117)

The level of biodiversity within the site area surveyed is **low.** The boundaries and garden areas are not species rich and are intensively managed for amenity purposes and therefore offer limited potential to local wildlife.

Any proposed redevelopment of the site area should have negligible impact on the biodiversity of the area. Assuming measures to retain the tree cover along Quadring Road and other key dominant canopy trees of landscape and ecological value within the site are incorporated into any proposed development, there should be little impact on the landscape and visual amenity of the location and foraging by bats and birds is likely to continue undisturbed within the locality.

4.2 Impact of the Proposals on Protected Species

The requirements of Part IV of ODPM / Defra Circular 06/2005 in regard to the protection of certain species are still applicable under the new NPPF. The presence of protected species at the site must be taken into consideration. NPPF March 2012 paragraph 119 makes the following provision in relation to the presence of protected species on, or making use of, a site proposed for any development:

"The presumption in favour of sustainable development (paragraph 14) does not apply where development requiring appropriate assessment under the Birds or Habitats Directives is being considered, planned or determined."

The survey of this site has not identified any evidence of protected species within the survey area. Some trees have been identified with low or moderate roost potential that should be retained within the development. However, if these need to be removed to facilitate any development a dusk or dawn survey should be completed in compliance with the Bat Survey Guidelines 2012. Similarly, whilst the house displays no evidence of roosting bats either externally or internally, it does contain some minor features that could be of interest to roosting bats in the future and therefore a re-inspection and dusk or dawn survey is recommended as a precautionary measure.

Overall, the development of this site area is very unlikely to impact any protected species.

5. Conclusions and Recommendations

The site assessed is a triangular parcel of land occupied by a house, garden, a small adjacent paddock and orchard and a number of small wooden outbuildings located on the east side of Quadring Road, Donington, Lincolnshire.

After inspecting the site it is concluded that:

a) No areas of high biodiversity of high ecological value are present within the site area;
b) The garden and boundary vegetation is not species rich, being dominated by amenity species such as cultivated Apple, Cherry Laurel etc. with few native species present in significant quantities;
c) There are some large trees of good quality that are recommended for retention and inclusion within any development and a valuable tree screen along Quadring Road that should be retained;
d) There are no significant ecological constraints present within the land being considered for development; and
e) No evidence of protected species or BAP species was found within the site area. A survey of individual trees close to the house and the house itself should be undertaken prior to any demolition or felling work being undertaken as an additional precaution.

It is recommended that within the proposed development, protection measures to retain as many trees as possible along the frontage of Quadring Road should be put in place and any

proposed landscape areas containing new tree and shrub planting should utilise native species wherever possible.

No further surveys are recommended for planning purposes.

Christopher Barker CEnv

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Web references

MAGIC: Designated area data downloaded from URL http://www.magic.gov.uk.html

National Biodiversity Network: Protected species data downloaded from URL http://data.nbn.org/interactive/map

Appendix 1 – Indicative Species List

Tree and Shrub Species		***Ground Flora and Perennial Species***
Apple (*Malus domestica*) Ash (*Fraxinus excelsior*). Beech (*Fagus sylvatica purpurea*) Birch (*Betula pendula*) Cherry (*Prunus avium*) Cotoneaster (*Cotoneaster* CUL) Cypress (*Chamaecyparis* sp) Damson (*Prunus domestica*) Elder (*Sambucus nigra*) Hawthorn (*Crataegus monogyna*) Hazel (*Corylus avellana*) Holly (*Ilex aquifolium*) Hydrangea (*Hydrangea* CUL) Juniper (*Juniperus communis*) Laurel (*Prunus laurocerasus*) Lilac (*Syringa vulgaris*) Maidenhair (*Ginko biloba*) Mahonia (*Mahonia aquifolia*) Oak (*Quercus robur*) Pear (*Pyrus domestica*) Purple Sycamore (*Acer pseudoplatanus purpurea)* Rose (*Rosa rugosa* and *canina*), Rowan (*Sorbus acuparia*) Spotted Laurel (*Aucuba japonica*) Sumach (*Rhus typhina*) Sycamore (*Acer pseudoplatanus*) Winter Viburnum (*Viburnum tinus*) Yew (*Taxus baccata*)		Bindweed (*Calystegia sepium)* Bluebell *(Endymion non-scriptus)* Bramble (*Rubus fruiticosa*), Bugle (*Ajuga repans*) Buttercup (*Ranunculus repens*), Chickweed (*Stellaria media*). Clover (*Trifolium repens*) Cow Parsley (*Anthriscus sylvestris*) Creeping Thistle (*Cirsium arvense*), Comfrey (*Symphytum tuberosum*) Couch (*Elymus repens*), Daisy (*Bellis perennis*) Dandelion (*Taraxacum* sp), Dead Nettle (*Lamium)*, Dock (*Rumex obtusifolius*), Fescue (*Festuca rubra*) Feverfew (*Tanacetum parthenium)* Forget me Not (*Myosotis arvensis*) Ground Elder *(Aegopodium podagraria)* *Groundsel (Senecio vulgaris)* Herb Robert (*Geranium robertianum*), Honeysuckle (*Lonicera periclymenum*) Iris (*Iris pseudacorus*) Ivy (*Hedera helix*), Lady's Mantle (Alchemilla CUL) Mayweed (*Chamomilla suaveolens*) Meadow Grass (*Poa* sp) Nettle (*Urtica dioica*), Perennial Ryegrass (*Lolium perenne*) Persian Speedwell (Veronica persica) Plantain (*Plantago lanceolata*) *Phlox maculata* *Phormium tenax* Poppy (*Papaver orientalis*), Ragwort (*Senecio jacobaea*) Sedum (*Sedum spectabile*) Shepherds purse (*Capstella Bursa pastoris)* Sowthistle (*Sonchus asper*) Thistle (*Onopordum acanthium*), Yellow Archangel (*Lamiastrum galeobdolon)* Yorkshire Fog (*Holcus lanatus*)

Appendix 2 GLNP Biological Records

These records are provided as a separate appendix.

Appendix 3 Summary of Protected Species Records (Selected relevant records from GLNP)

Taxon Name	Common Name	Date	Record Type	Abundance
Emberiza citrinella	Yellowhammer	1972		
Linaria cannabina	Linnet	1972		
Turdus pilaris	Fieldfare	1972		
Lasiommata megera	Wall	1974		
Arvicola amphibius	European Water Vole	2007	Dung or other signs	1 Present (Count)
Arvicola amphibius	European Water Vole	2007	burrow, nesthole	1 Present (Count)
Pipistrellus pipistrellus sensu lato	Pipistrelle	2004		Present Adult Female
Pipistrellus pipistrellus sensu stricto	Common Pipistrelle	2006		
Pipistrellus pygmaeus	Soprano Pipistrelle	2004	grounded	1 Adult Male (Count)
Pipistrellus pygmaeus	Soprano Pipistrelle	2006		
Arvicola amphibius	European Water Vole	2007	Dung or other signs	1 Present (Count)
Arvicola amphibius	European Water Vole	2007	burrow, nesthole	1 Present (Count)
Arvicola amphibius	European Water Vole	2007	feeding damage, etc	1 Present (Count)
Alauda arvensis	Skylark	1972		
Chiroptera	Bats	2007	sighting	3 Present (Count)
Chiroptera	Bats	2008	sighting	2-3 Present (Count)
Chiroptera	Bats	2008	sighting	
Chiroptera	Bats	2008	sighting	
Chiroptera	Bats	2010	sighting	1 Present (Count)
Chiroptera	Bats	2011	sighting	2 Present (Count)
Meles meles	Eurasian Badger	2007	sett	1 Present (Count)
Pipistrellus pipistrellus sensu lato	Pipistrelle	1993		1 Male (Count)
Pipistrellus pipistrellus sensu lato	Pipistrelle	2002		
Pipistrellus pipistrellus sensu lato	Pipistrelle	2002		1 Present (Count)