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Lichfield West Midlands Traded Services Limited
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39 Main Road, Ratcliffe Culey, Atherstone

Preliminary Ecological Appraisal

18th July 2025

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Executive Summary

LWM Traded Services Ltd undertook a Preliminary Ecological Appraisal of a site at '39 Main Road, Ratcliffe Culey, Atherstone'. This included an extended UKHab Habitat Survey. Preliminary Ecological Appraisals are used during the site development process to gather data on existing conditions, with the intention of conducting a preliminary assessment of likely impacts of development schemes or establishing the baseline for future monitoring. As a precursor to a proposed project, evaluation can be made within these appraisals of the ecological features present, as well as scoping for notable species or habitats, identification of potential constraints to proposed development schemes, and recommendations for mitigation.

The development proposals briefly comprise demolition of the existing buildings, and construction of new residential properties. The development proposals are included in Appendix 2.

Baseline Conditions	
Designated Sites	The survey area is not on or adjacent to any statutory or non-statutory sites designated for nature conservation. The site falls within the Impact Risk Zone (IRZ) of a Site of Special Scientific Interest (SSSI) further afield, but is unlikely to impact on it and the proposal is not of a type that requires consultation with Natural England.
Habitats	The UKHab survey identified a very limited range of habitats within the survey area, namely: buildings, hardstanding and modified grassland. The habitats present on site are common and widespread, with no significant changes to them proposed.
Species	The barns are known to support nesting birds, and have the potential to support roosting bats. The site's boundaries also have the potential to support hedgehog and foraging/commuting bats. All other protected species are likely absent from the site, due to unsuitable habitats, levels of disturbance, species range, and/or landscape context.
Invasive and non-native species	No invasive plant species were confirmed as present within the survey area, and conditions do not suggest a high risk of them being present.

Discussion of Impacts and Recommendations	
Discussion of Impacts	Increases in general light levels can affect bat foraging and commuting. Considering the proposed plans for the site however, and the existing presence of neighbouring residential properties, significant impacts can be easily avoided. Demolition of buildings 1, 3 & 5 will result in the destruction of any bat roost(s) present, and would likely result in disturbance and/or direct harm to any roosting bats present during works. Construction works on site also hold potential for impacts on nesting birds and (to a lesser extent) hedgehogs. Other potential for protected species is discussed in this report, but impacts on them from the proposed plans (240 302B proposed site plan) are assessed as unlikely. The project has been assessed as showing a net gain of 0.03 Biodiversity Units (23.29%), and therefore meets the statutory requirement of a 10% net gain.
Recommendations	Best practice survey guidelines (Collins, 2023) recommend additional surveys for buildings with potential to contain roosting bats. The requirement is for two dusk emergence or dawn re-entry surveys; conducted during the optimal survey season for bats May to September inclusive. These should be spaced a minimum of three weeks apart (preferably more). The use of artificial lighting is to follow the protocols outlined in the Institute for Lighting Engineers document “Guidance Note 08/23 “Bats and Artificial Lighting at Night” (2023)” to minimise disturbance and sky-glow across the site; and onto the boundaries in particular. Further surveys for birds are not considered to be necessary, provided the avoidance measures detailed in section 4.2.2 of this report can be accommodated. The surveys required to firmly establish presence or likely absence of hedgehogs on site are considered excessive, given the ease and affordability of avoiding/mitigating/compensating impacts on this species. To prevent foraging and commuting hedgehogs (and other wildlife such as badgers) being trapped by ground works, trenches and tunnels should be covered and/or capped overnight.

1.0 Introduction and Context

1.1 Background

LWM Traded Services Ltd were commissioned by to undertake a Preliminary Ecological Appraisal (PEA) of a site at '39 Main Road, Ratcliffe Culey, Atherstone' (hereafter referred to as 'the site' or 'site') and surrounding land within 50m, where accessible, of the red line boundary. The survey included an Extended Habitat Survey, and the assessment is based on the *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2023).

This is the first ecological survey to be undertaken on the site by LWM Traded Services Ltd The author is not aware of any previous ecological surveys having been undertaken at this site.

1.2 Scope of the Report

This report describes the baseline ecological conditions at the site; evaluates habitats within the survey area in the context of the wider environment; and describes the suitability of those habitats for notable or protected species. It identifies significant ecological impacts as a result of the development proposals; summarises the requirements for further surveys and mitigation measures, to inform subsequent mitigation proposals, achieve Planning or other statutory consent, and to comply with wildlife legislation.

The aim of the PEA was to obtain data on existing ecological conditions, and to conduct a preliminary assessment of the likely significance of ecological impacts on the proposed development. To achieve this, the following steps were taken:

- The desk study area and field survey area (generally 50m from the site boundary/proposed footprint and including the 'zone of influence' of the scheme) have been identified
- Baseline information on the site and surrounding area has been recorded through an 'Extended Habitat Survey', including a UKHab Habitat Survey and recording further details in relation to notable or protected habitats and species
- The ecological features present within the survey area have been evaluated, where possible (IEEM, 2006)
- Invasive plant and animal species (such as those listed on Schedule 9 of the Wildlife & Countryside Act [WCA]) have been identified
- Likely impacts on features of value, as a result of the development proposals, have been identified
- Recommendations for further survey and assessment have been made
- Recommendations for mitigation and opportunities for enhancement have been provided based on current information

The UKHab habitat map of the survey area, with supporting target notes, is included in Appendix 1, the proposed project plan is presented in Appendix 2, and photographs taken during the site survey are included in Appendix 3. A description of relevant legislation, planning policy, and nature conservation Status' is included in Appendix 4, and desk study information is in Appendix 5.

1.3 Site Context

The site is located at National Grid Reference SP 3264 9962 and comprises an area of approximately 0.25ha. The site is situated on the western edge of Ratcliffe Culey. This is a rural location; while neighbouring residential properties are present immediately to the North and East, the site is bounded on other sides by agricultural fields. This mosaic of habitats is typical of the surrounding landscape; with residential properties and woodland fragments interspersing the mainly agricultural landscape, and hedgerows, tree lines and drainage ditches connecting the various habitat blocks.

1.4 Project Description

This report is prepared in relation to a planning application for development of this site, to inform design and ensure legal compliance.

The development proposals include:

- Demolition of the existing buildings
- Construction of new residential properties
- Construction of / amendments to the access driveway
- Soft landscaping

The development proposals are included in Appendix 2.

All works areas, storage and haul routes will be included within the site boundary; access will be provided by existing roads and as such, no additional working footprints are anticipated.

2.0 Methods

2.1 Desk Study

A desk study relating to the site and a surrounding 2km radius (the study area) was undertaken. The study area has been defined at this scale as an assessment of any trees suitable for roosting bats is included within this report. There are no statutory designated sites for bats or birds within 10km of the site. Some of the data search is confidential information that is not suitable for public release; therefore, only a summary is given within this report.

Freely available information on designated sites, habitats and species of Principal Importance was reviewed, including a search on Magic.defra.gov.uk and using OS OpenData (2010). Information obtained from the desk study included:

- Landscape structure
- Habitats and species of Principal Importance (as listed on S41 of the Natural Environment and Rural Communities (NERC) Act 2006 (habitats and species of Principal Importance)
- Information on designated sites
- Information on the surrounding area, including waterbodies.

In line with CIEEM guidance, biological records data for a radius of 2km has been obtained from Leicestershire & Rutland Environmental Records Centre.

2.2 UKHab Survey

The survey was undertaken by James Porter BSc (Hons) MSc MCIEEM, English bat licence number: 2015-13455-CLS-CLS, on the 18th July 2025 and was completed during suitable weather conditions (temperature: 22°C, wind: 1 Beaufort scale, cloud cover: 2 oktas, precipitation: none).

The survey area generally comprised all land that will be impacted by the proposals; in this instance taken to be the site boundary and a buffer of 50m. However, where waterbodies were identified by the desk study within 500m of the proposed works area, the survey area will have been extended to inform an assessment of habitat suitability for great crested newts *Triturus cristatus*. All linear watercourses were also surveyed 150m up and down stream of the works area for otters *Lutra lutra* and water voles *Arvicola amphibius*. For details of the site boundary and survey area, please refer to Figure 1 in Appendix 1.

2.2.1 Habitats and flora

The methodology for the UKHab Habitat Survey was based on the best practice guidance. All land parcels were described and mapped according to UKHab habitat types. Target notes provide supplementary information on habitat conditions, features too small to map, species composition, structure and management. Scientific names are given after the first mention of a species in this report, subsequently common names are used.

2.2.2 Protected species and Species of Principal Importance

During the survey, habitats were assessed for their suitability to support protected species and notable species assemblages, and field signs indicating their presence or absence recorded. This assessment took into consideration findings of the desk study, habitat conditions on site and in the context of the surrounding landscape, and the ecology of the species. Special attention was made to the following features suitable for protected species:

- Ponds or other water bodies within 500m of the site, were identified. The suitability of these and the available terrestrial habitat for great crested newt was assessed, along with considerations of connectivity. Natural England's Great Crested Newt Mitigation Guidelines (English Nature, 2001) recommend that any waterbodies within 500m of a site, and sites with suitable terrestrial habitats within 500m of a waterbody, should be assessed for great crested newt potential. However, the great crested newt Rapid Risk Assessment (RRA; from Natural England's EPSL method statement for the species) assesses habitat losses of up to 5 hectares (ha) of land situated greater than 250m from a breeding pond as 'Green: offence highly unlikely'. Thus, for sites less than 5ha (such as this one), greater emphasis is put upon ponds up to 250m from the site boundary.
- Any trees to be impacted by the scheme proposals were assessed for their likelihood to support roosting bats by conducting a non-intrusive visual appraisal from the ground using binoculars. The external features of the trees were also assessed for potential access/egress points, and for signs of bat use.
- Any vegetation cover and topography suitable for badger *Meles meles* sett construction were investigated, and evidence of badger activity recorded.
- Any habitat complexes with a diverse structure and features suitable for basking, foraging and hibernating reptiles were recorded.
- Any suitable foraging, refuge and/or hibernation areas for hedgehogs were inspected for signs of use.
- Evidence of bird nesting/breeding activity on or adjacent to site.

Due to the lack of suitable habitat, field signs, and their known distribution, it is considered unlikely that the survey area supports any other protected species. Therefore, only those species listed above are considered further in this report.

2.2.3 Invasive / non-native species

The distribution and extent of any invasive species listed on Schedule 9 of the Wildlife and Countryside Act (1981) were also noted throughout the survey area.

2.3 Suitability Assessment and Ecological Value

2.3.1 Likelihood of the presence of protected species

The likelihood of occurrence of protected species is ranked according to the criteria listed in Table 1. The habitats on site were evaluated as to their likelihood to provide sheltering, roosting, foraging, basking or nesting habitat.

Table 1: showing criteria considered when assessing the likelihood of occurrence of protected species

Present	Species are confirmed as present from the current survey or recent confirmed records.
High	The site is of high quality for a given species/species group, due to the presence of e.g. Habitat and features of high quality for species/species assemblage. Species known to be present in wider landscape (desk study records). Good quality surrounding habitat and good connectivity.
Medium	The site is of moderate quality for a given species/species group, due to the presence of e.g., Habitat and features of moderate quality. The site in combination with surrounding land provides all habitat/ecological conditions required by the species/assemblage. Within known national distribution of species and local records in desk study area. Factors limiting the likelihood of occurrence may include small habitat area, habitat isolation, and/or disturbance.
Low	Habitats within the site are of poor to moderate quality for a given species/species group. Few or no records from data search. Despite above, presence cannot be discounted as within national range, all required features/conditions present on site and in surrounding landscape. Limiting factors could include isolation, poor quality landscape, or disturbance.
Negligible	Whilst presence cannot be absolutely discounted, the site includes very limited or poor-quality habitat for a particular species or species group. No local records from desk study; site on edge of, or outside, national range. Surrounding habitats considered unlikely to support species/species assemblage.

2.3.2 Assessment of Ecological Value

The ecological value of the survey area has been assessed based on the *Guidelines for Ecological Impact Appraisal* (CIEEM, 2017) and *Handbook of Biodiversity Methods: Survey, evaluation and monitoring* (David Hill, 2005), using geographic frames of reference. The biodiversity value of the identified designated sites, habitat types and associated species/assemblages has been considered. The criteria listed below have

been used to reach an evaluation; examples under each category of biodiversity value are provided in Table 2.

- Presence of designated sites or features
- Presence of UK priority habitats and species (S41 of the NERC Act), and species listed as Birds of Conservation Concern (Eaton *et al* 2009)
- Size of habitat, diversity of species, or population
- Habitats or species which are rare, species which are on the edge of their range
- Large populations of uncommon species, or plant communities that are typical of valued natural/semi-natural vegetation types
- Habitats or features that have supporting value for high value habitats, designated sites or protected species, e.g., buffer habitat to ancient woodland
- Presence of legally protected species.

Table 2: Examples of criteria defining conservation evaluation

Evaluation on geographical scale	Examples of criteria defining evaluation
International	Biodiversity feature that is designated or warrants designation as a European Protected Site
National	Biodiversity feature that is designated or warrants designation as a National designated site (Site of Special Scientific Interest (SSSI) or National Nature Reserve (NNR))
Metropolitan or County	Biodiversity feature that is designated or warrants designation as a county wildlife site, local nature reserve, or a Site of Metropolitan Importance for Nature Conservation (SMI). Species and habitats of principle importance.
Borough	Biodiversity feature that is designated or warrants designation as a Site of Importance for Nature Conservation (SNCI), or other feature which is one of the best examples of its type within the Borough. Diverse and/or ecologically valuable hedgerow network, or ancient woodland greater than 0.25ha
Local	Biodiversity feature which is one of the best examples of its type within a local context (i.e., within ~1km of the scheme extent)/local Parish. Habitat complex considered to enrich the habitat/biodiversity resource within the context of the local neighbourhood.
Within the vicinity of the site	Biodiversity features of value within the zone of influence (site plus approximately 50m buffer).
Negligible	Biodiversity features of negligible value.

Following CIEEM guidance it should be noted that legal protection or UK Biodiversity Action Plan (BAP) status does not necessarily imply biodiversity status at the equivalent scale. For example, a badger *Meles*

meles sett would receive legal protection at a national scale and a native hedgerow would be a UK BAP priority habitat, but neither feature is likely to be of biodiversity value at a national scale.

Where this report accompanies a planning application, the ecological interest of the study area and the proposed development has also been evaluated in terms of the planning policies relating to biodiversity. It will be clearly stated where a preliminary value can be given and where further information is required.

2.4 Limitations

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site.

Where only four figure grid references are provided for biological data, it is not possible to determine their precise location as they could be present anywhere within the given 1km x 1km National Grid square.

This survey provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the local area, the ecology and biology of species as currently understood, and the known distribution of species as recovered during the desk study.

Ecological surveys are limited by a variety of factors, which affect the presence of flora and fauna (e.g. climatic variation, season and species behaviour). A lack of evidence of a protected species during a survey does not mean that the species is absent; hence the surveys also record and assess' the ability of habitats to support such species. The time frame in which the survey is conducted provides a snapshot of activity within the survey area and cannot necessarily detect all evidence of use by a species. The survey was completed in July and as such the timings of the habitat survey did not present any issues when classifying habitats.

It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation of the natural environment. The Extended UKHab habitat survey does not constitute a full botanical survey.

3.0 Results and Evaluation

3.1 Desk Study

Further desk study data is reproduced in Appendix 5.

3.1.1 Designated sites

The survey area is not subject to any statutory or non-statutory nature conservation designations, and there are no statutory designated sites within 2km of the site. There are however Local Wildlife Sites; as described in Table 3.

Table 3: Designated Nature Conservation sites within the study area

Designated site name	Designation	Location and direction from site	Citation
Manor Farm Meadows	LWS	1.6km Northeast	Mesotrophic grassland, with stream.
Sheepy Magna Churchyard	LWS	1.6km North	Mesotrophic grassland

There are also multiple 'potential' and 'candidate' LWS within a 2km radius of site. These are variously Mesotrophic grassland, a mature tree, hedgerows and small rivers/streams. The proposed development site does not share similar habitats, nor strong connectivity with these LWS; making impacts on them unlikely.

The locations of these are shown in Appendix 5, where it can be seen that none are close to site, nor to they show strong connections to the site.

3.1.2 Habitats of principal importance

A search of the Magic.defra.gov.uk database identified a small fragments of deciduous woodland present within 2km of the site (the closest lying approx.. 1km East of site). There were also areas of floodplain grazing marsh and good quality semi-improved grassland; the closest of which lies approx. 500m to the West of site. These habitats are likely to be classified as habitats of principle importance, and of particular value to wildlife. None are adjacent to site however, nor do they show strong connections to site.

3.1.3 Previously granted European Protected Species Mitigation Licences (EPSML)

A search of the magic.defra.gov.uk database found no European Protected Species Licences (EPSML) that had been granted within 2km of the site.

3.1.4 Landscape structure

A review of aerial photographs (Figure 1) and OS maps shows the site has only limited potential for importance in the context of the surrounding landscape; lacking boundary features connecting blocks of habitat through the wider hedgerow network or otherwise providing suitable habitat corridors for wildlife.

Figure 1: Aerial photograph of the site and surrounding landscape (Map data 2025 Google)

3.2 UKHab Habitat Survey

3.2.1 g4 Modified grassland

The corners of two agricultural fields, sown with a standard agricultural grass seed mix; dominated by perennial ryegrass *Lolium perenne*, with abundant Italian ryegrass *Lolium multiflorum*, frequent Timothy *Phleum pratense*, Yorkshire fog *Holcus lanatus*, white clover *Trifolium repens* and occasional comment arable 'weeds', including; fat hen *Chenopodium album*, chickweed *Stellaria media*, broad-leaved dock *Rumex obtusifolius* and cleavers *Galium aparine*.

The heavy dominance of ryegrass meant that species density was estimated at 4 vascular plants per m^2. The sward was varied in height. While scrub/ruderal plants were more abundant in the sections on site,

the overall characteristic of the field was that this accounted for <20% of its total area. Physical damage from machinery, access and/or storage was evident across much of the grassland on site, but bare ground covered less than 10% of the total area. Bracken was absent; as were invasive plant species. The condition of the modified grassland was therefore assessed as 'poor'; mainly due to the low species density.

In the Southwest corner of site, in what used to be the garden of the farmhouse, were some self-set trees; ranging from saplings to young. Species present included ash *Fraxinus excelsior,* oak *Quercus robur*, holly *Ilex aquifolium*, common hawthorn *Crataegus monogyna*, sycamore *Acer pseudoplatanus*, elder *Sambucus nigra* and silver birch *Betula pendula*. None had stem diameters in excess of 30cm, and so none are mapped separately in Appendix 1.

3.2.2 u1b Developed land – sealed surface

The site was a former farmyard. The farmhouse itself was absent (demolished some years previously); meaning that what remained at the time of survey was a collection of five barns.

B1 was a rectangular (15m x 4.5m) barn, with solid brick walls and timber-framed pitched roof clad in clay tiles (although approx. 90% of the tiles were missing at the time of survey).

B2 was a rectangular (19m x 12m) barn, with walls of cement block, and a steel-framed pitched roof clad in corrugated sheeting.

B3 was formed of two parts; a taller 17m x 5m section, and a lower 5m x 5m section. Both had timber-framed pitched roofs, clad in clay tiles, with no internal roof lining.

B4 was a rectangular (28m x 12m) barn, with lower walls of concrete panels, upper walls of corrugated sheeting, and a steel-framed pitched roof clad in corrugated sheeting.

B5 was an L-shaped (19m x 7m) single-storey barn, with solid brick walls and timber-framed pitched roof clad in clay tiles. The roof of B5 was much more intact than that of B1.

Cement hardstanding surrounded the buildings on site. These hardstanding areas were largely intact, with minimal encroachment by vegetation.

3.3 Protected Species and Species of Principal Importance

The protected species/species groups considered potentially present within the survey area are:

- Bats
- Badger
- Breeding birds
- Great crested newt
- Hedgehog

- Reptiles

The likelihood of these species being present, other notable species, or invasive species, is evaluated in Table 4.

Table 4: Assessment of likelihood of protected and invasive species occurrence

Species / group	Likelihood of occurrence	Justification for evaluation	Legislation/policy
Bats	Foraging/ commuting: low	The grassland on site is likely to attract foraging bats locally. It is unlikely however to represent a significant foraging resource. The site shows limited potential to play a connecting role between nearby woodland fragments and other foraging areas; as it lacks suitable boundary features. The adjacent road and existing residential properties further lower its suitability for some bat species to commute across. The biological records centre returned records of bats within 2km from the past 10 years; including common pipistrelle and brown long-eared bats.. There was also a record from 2021 of unidentified bats foraging within a garden on Main Road. No records were from on site.	Wildlife and Countryside Act 1981 (as amended). The Conservation of Habitats and Species Regulations 2017.
	Roosting: Moderate	B1: Moderate. Roof structure and building interior exposed, but the walls had multiple PRF in crevices; several of which could not be safely reached. B2: Negligible. No suitable roosting sites. Building materials likely to undergo large fluctuations in temperature. B3: Moderate. Roof structure and walls had multiple PRF in the form of crevices, lifted/slipped/cracked tiles and missing mortar at ridges. Several PRF could not be safely accessed for inspection. B4: Negligible. No suitable roosting sites. Building materials likely to undergo large fluctuations in temperature. B5: Moderate. Roof structure and walls had multiple PRF in the form of crevices, lifted/slipped/cracked tiles and missing mortar at ridges. Several PRF could not be safely accessed for inspection.	

Species / group	Likelihood of occurrence	Justification for evaluation	Legislation/policy
		None of the trees on site showed potential roosting features for bats, or stem diameters large enough to expect presence of roosting bats.	
Badger	Low	Whilst suitable foraging habitat was present on site, and optimal habitat present nearby in the form of woodland, no evidence of badgers (setts, latrines, tracks, pathways or snuffle marks) was discovered either on site or within a 50m radius during the survey. Neither biological records centre returned any records of badgers within 1km from the past 10 years, and have never recorded badgers within 500m of the site.	Protection of Badgers Act 1992.
Breeding birds	Confirmed	Feral doves were observed within the taller section of B3, and it is understood that doves were previously kept as pets in this building. Disused bird nests were also observed in B1 & B5. Both records centres returned a number of bird records within 2km, but none were from the site itself, nor were they of species typical of the habitats found on site.	Wildlife and Countryside Act 1981 (as amended).
Great crested newt	Negligible	OS maps indicate that there is one waterbody within 250m of the site; approx. 200m to the South. This scored 'poor' against the Habitat Suitability Index however (see Appendix 5 for details), meaning that it is highly unlikely to support great crested newt. The records centre returned amphibian records (including GCN) for within 2km of the site, but the closest was located approx. 1.6km away.	Wildlife and Countryside Act 1981 (as amended). The Conservation of Habitats and Species Regulations 2017.
Hedgehog	Medium	Suitable habitat at boundaries: good species and structural diversity. Good connectivity between shrubs on site and nearby woodland/hedgerow network.	Wildlife and Countryside Act 1981 (as amended). The Conservation of Habitats and Species Regulations 2017.
Widespread reptiles	Low	Whilst grassland and abandoned buildings can provide refuge areas for reptiles, the nature of the site, and evidence of	Wildlife and Countryside Act 1981 (as amended).

Species / group	Likelihood of occurrence	Justification for evaluation	Legislation/policy
		recent/regular disturbance/ maintenance, makes the presence of reptiles unlikely.	
Invasive plant species	Low	No invasive plant species were confirmed as present within the survey area, and conditions do not suggest a high risk of them being present.	Section 14 and Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

3.4. Evaluation

Habitats and species across the survey area were evaluated; this evaluation is described in Table 5.

Table 5: Evaluation of ecological receptors

Evaluation	Description of features and explanation of evaluation
International	The site is not designated for its international nature conservation importance. There are no international statutory designated sites within the 2km study area. No species listed on Annex II of the Habitats Directive have been recorded within the survey area; no habitats on site are considered likely to support these species.
National	The site is not subject to any national statutory nature conservation designations, and it is not considered that any habitats or species within the site would meet the criteria for the designation of a SSSI. The site does fall within the Impact Risk Zone of a SSSI further afield; but it does not share similar habitats or strong connectivity with this SSSI; nor would replacement of a single residential property result in indirect impacts (such as increased visitor pressure).
Metropolitan or County (e.g. Kent)	The site is not subject to any non-statutory nature conservation designations such as Local Wildlife Sites. There are no habitats or species recorded on site considered likely to be of Metropolitan importance.
Borough or District (e.g. Maidstone)	The site is not subject to any non-statutory nature conservation designations such as LWS; nor does it share similar habitats or strong connectivity with nearby LWS.
Local	The site is known support protected species (nesting birds) and has the potential to support other protected species (foraging/commuting bats, roosting bats and hedgehog). As such, it is considered to be of some level of importance locally.
Within the vicinity of the site (approx. 50m)	With the exception of the factors described above, all habitats within the survey area are considered to be of value within the vicinity of the site only.

4.0 Discussion and Recommendations

4.1 Discussion

The site is not subject to any statutory or non-statutory designations and is unlikely to serve a landscape-scale role in connecting the wider landscape.

The barn 3 is known to support nesting birds, and some of the barns show moderate potential to support roosting bats. The site also has the potential to support hedgehog and foraging/commuting bats. All other protected species are likely absent from the site, due to unsuitable habitats, levels of disturbance, species range, and/or landscape context.

4.1.1 Discussion of impacts and the mitigation hierarchy

A description of significant impacts on habitats and species at value greater than the vicinity of the site (that cannot be avoided and can be identified at this stage of the assessment) is provided below. This impact assessment is based on current design proposals; please refer to the project plan in Appendix 2 illustrating and further describing the proposed works. Where sufficient information exists to design mitigation, this is also discussed. Any requirements for further survey to inform detailed mitigation proposals are provided in 4.2. Where further surveys for a particular habitat/complex or species are required prior to Planning Application, mitigation is not discussed in detail at this stage.

Designated sites

Direct impacts on designated sites are unlikely to arise as the works would be a sufficient distance to avoid dust, noise and visual effects on the reasons for designation.

Habitats and plants

The habitats and floral species found on site are common and widespread. No significant impacts on biodiversity are anticipated.

Protected species and species of principal importance

Commuting/Foraging Bats*:* Increases in general light levels can affect bat foraging and commuting. Considering the proposed plans for the site however, and the existing presence of neighbouring residential properties, significant impacts can be easily avoided.

Roosting Bats: Demolition of buildings 1, 3 & 5 will result in the destruction of any bat roost(s) present, and would likely result in disturbance and/or direct harm to any roosting bats present during works.

Breeding birds: Demolition of the buildings may affect birds that use the site for breeding and foraging by causing a decrease in nesting sites and food resources. Such works may directly harm nesting birds if carried out during the breeding season (March to August inclusive).

Works impacting trees and other boundary vegetation may also affect birds that use the site for breeding and foraging by causing a decrease in nesting sites and food resources. Loss of these habitats may directly harm nesting birds if carried out during the breeding season (March to August inclusive).

Badger: Although no badger setts were observed on site, badger activity can change over a short time. If any setts are created on site prior to works, tunnels could be affected by ground works and vegetation removal and badgers could be harmed.

Hedgehog: In the event that hedgehogs are present hibernating on site, then there is potential for disturbance and/or direct harm if works are carried out during their hibernation season (September - March). They would also suffer loss of habitat and any hibernation site(s) present.

4.2 Recommendations – further surveys and impact avoidance measures

The sections below provide an outline of the additional survey work that should be carried out prior to development, and also a suggested outline for the development of an Ecological Opportunities and Constraints Plan (recommended under BS 42020:2013). Where surveys are required prior to Planning Application, this is clearly stated.

4.2.1 Bat surveys

Best practice survey guidelines (Collins, 2023) recommend additional surveys for buildings with potential to contain roosting bats. The requirement is for two dusk emergence or dawn re-entry surveys; conducted during the optimal survey season for bats May to September inclusive. These should be spaced a minimum of three weeks apart (preferably more).

Further surveys for bats elsewhere on site are not considered to be necessary, provided the following avoidance measures can be accommodated:

- Any retained trees should be protected during works, in line with *BS 5837: 2012 Trees in relation to design, demolition and construction*.

- The use of artificial lighting is to follow the protocols outlined in the Institute for Lighting Engineers document "*Guidance Note 08/23 "Bats and Artificial Lighting at Night" (2023)*" to minimise disturbance and sky-glow across the site; and onto the boundaries in particular.

4.2.2 Breeding bird surveys

Further surveys for birds are not considered to be necessary, provided the following avoidance measures can be accommodated:

- The young trees on site are likely to be the most valuable to nesting birds, and should be retained as far as possible. All trees due to be retained should be protected in line with *BS 5837: 2012 Trees in relation to design, demolition and construction*.
- Nesting birds may be present in the buildings, trees and other vegetation during the bird breeding season (March to August inclusive). If work is planned during these months, then a prior check (within a 24-hour period preceding works) for nesting birds should be undertaken by an ecologist. Any active nests that are found must not be moved until fledglings have dispersed.

4.2.3 Badger

Although no badger activity was observed on the site at the time of the survey, activity patterns of this species can change over a short time. It is recommended that all contractors involved in the project be briefed regarding the potential for badgers on site. Should any evidence of badger presence be found at any stage during works, then all works must cease and the advice of a suitably qualified Ecologist sought.

To prevent foraging and commuting badgers being trapped by ground works, trenches and tunnels should be covered and/or capped overnight.

4.2.4 Hedgehog

The surveys required to firmly establish presence or likely absence of hedgehogs on site are considered excessive, given the ease and affordability of avoiding/mitigating/compensating impacts on this species. Clearance of suitable hibernation areas should be undertaken by hand, outside of the hibernation period (September - March). A hedgehog hibernation box should be installed within a suitable habitat (e.g. vegetated boundary). These can be easily constructed, or can be purchased.

To prevent foraging and commuting hedgehogs being trapped by ground works, trenches and tunnels should be covered and/or capped overnight.

4.3 Recommendations – opportunities for enhancement

Ecological Constraints and Opportunities Plan

The bullet points below represent some broad suggestions that could be included within an ECOP to inform the development proposals. These recommendations should be developed further in coordination with the landscape designers and other specialists as the design progress. It is acknowledged that not all may prove suitable/practical for this development.

- Design of wildlife friendly lighting;
- Measures to protect trees from construction activities;
- Inclusion of bird and bat boxes (ideally within the fabric of the new buildings);
- Inclusion of plant species of known value to wildlife in any landscape design proposals;
- Creation of wildlife refuge areas (habitat piles);
- Design and implementation of measures to improve ecological connectivity; such as strengthening the tree-lined boundaries

The author's current understanding is that, due to the need to demolish the existing house, a full planning application will be required (i.e. it will not qualify as a homeowner application). The project will therefore need to comply with the statutory Biodiversity Net Gain requirements. The design proposal (240 302B proposed site plan) was assessed against the DEFRA Statutory Metric, using the same red line boundary as that plan. Detailed results can be seen in the accompanying Excel spreadsheet (Statutory_Metric_1.0.4_-_39_Main_Road). The headline result is that the project currently shows a net gain of 0.03 Biodiversity Units (23.29%), and therefore meets the statutory requirement of a 10% net gain. This is based on the creation of Developed Land; Sealed Surface and Vegetated Garden; neither of which is considered a 'significant' habitat, and neither of which is subject to a specific condition assessment under the BNG methodology. A Habitat Management & Monitoring Plan will therefore not be required.

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Appendices

Appendix 1: UKHab Map (current site conditions)

39 Main Road, Ratcliffe Culey - UKHab Habitat Map - Existing / Baseline

Appendix 2: Site plan/proposals

Appendix 3: Photographs

Image 1: Site viewed from Southeast boundary

Image 2: B1

Image 3: B2 (right) and B3 (centre)

Image 4: B4

Image 5: B5

Image 6: Species-poor modified grassland adjacent to B5 (former garden)

Appendix 4: Legislation and Planning Policy

LEGAL PROTECTION

Legislation Afforded to Habitats

National Statutory Designations

Sites of Special Scientific Interest (SSSI) are designated by nature conservation agencies in order to conserve key flora, fauna, geological or physio-geographical features within the UK. The original designations were under the National Parks and Access to the Countryside Act 1949 but SSSIs were then re-designated under the Wildlife & Countryside Act 1981 (as amended). As well as reinforcing other national designations (including National Nature Reserves), the system also provides statutory protection for terrestrial and coastal sites which are important within the European Natura 2000 network and globally. Further provisions for the protection and management of SSSIs have been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and the Nature Conservation (Scotland) Act 2004.

Local Statutory Designations

Local authorities in consultation with the relevant nature conservation agency can declare ***Local Nature Reserves (LNRs)*** under the National Parks and Access to the Countryside Act 1949. LNRs are designated for flora, fauna or geological interest and are managed locally to retain these features and provide research, education and recreational opportunities.

Non- Statutory Designations

All non-statutorily designated sites are referred to as ***Local Wildlife Sites (LWS)*** and can be designated by the local authority for supporting local conservation interest. Combined with statutory designation, these sites are considered within Local Development Frameworks under the Town and Country Planning system and are a material consideration during the determination of planning applications. The protection afforded to these sites varies depending on the local authority involved.

National and European Legislation Afforded to Species

The Habitats Directive

The EC Habitats Directive aims to promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore wild species listed on the Annexes to the Directive at a favourable conservation status, introducing robust protection for those species of European importance. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (the Conservation Regulations) and the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended). The following notes are relevant for all species protected under the EC Habitats Directive: In the Directive, the term 'deliberate' is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.

The Habitats Regulations do not define the act of 'migration' and, therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered.

In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three 'tests':

- the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment;
- there is no satisfactory alternative; and
- the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

The Wildlife and Countryside Act (WCA) 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection requirements of EC Birds Directive 2009/147/EC on the conservation of wild birds in Great Britain (the birds Directive). The WCA 1981 has been subject to a number of amendments, the most important of which are through the Countryside and Rights of Way (CRoW) Act (2000) and Nature Conservation (Scotland) Act 2004.

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991
- Natural Environment & Rural Communities (NERC) Act 2006
- Protection of Badgers Act 1992
- Wild Mammals (Protection) Act 1996

Badgers

Badgers *Meles meles* are protected under The Protection of Badgers Act which makes it an offence to:

- Wilfully kill, injure, take, or attempt to kill, injure or take a badger
- Cruelly ill-treat a badger, including use of tongs and digging
- Possess or control a dead badger or any part thereof
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett[1] or any part thereof
- Intentionally or recklessly disturb a badger when it is occupying a badger sett
- Intentionally or recklessly cause a dog to enter a badger sett
- Sell or offers for sale, possesses or has under his control, a live badger

[1] A badger sett is defined in the legislation as *"any structure or place which displays signs indicating current use by a badger"*. This includes seasonally used setts. Natural England (2009) have issued guidance on what is likely to constitute current use of a badger sett: www.naturalengland.org.uk/Images/WMLG17_tcm6-11815.pdf

Effects on development works

A development licence will be required from the relevant countryside agency for any development works liable to affect an active badge sett, or to disturb badgers whilst they occupy a sett. Guidance has been issued by the countryside agencies to define what would constitute a licensable activity[2]. It is no possible to obtain a licence to translocate badgers.

Birds

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the WCA. Among other things, this makes it an offence to:

- Intentionally kill, injure or take any wild bird
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built
- Intentionally take or destroy an egg of any wild bird
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.

Certain species of bird, for example the barn owl, bittern and kingfisher receive additional protection under Schedule 1 of the WCA and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC) and are commonly referred to as "Schedule 1" birds. This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young
- Intentional or reckless disturbance of dependent young of such a bird

Effects on development works

Works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August3. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Schedule 1 birds are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The

[2] For guidance on what constitutes disturbance and other licensing queries, see Natural England (2007) Badgers & Development: A Guide to Best Practice and Licensing. www.naturalengland.org.uk/Images/badgers-dev-guidance_tcm6-4057.pdf, Natural England (2009) Interpretation of 'Disturbance' in relation to badgers occupying a sett www.naturalengland.org.uk/Images/WMLG16_tcm6-11814.pdf, Scottish Natural Heritage (2002) Badgers & Development. www.snh.org.uk/publications/online/wildlife/badgersanddevelopment/default.asp and Countryside Council for Wales (undated) Badgers: A Guide for Developers. www.ccw.gov.uk.

[3] It should be noted that this is considered the main breeding period. Breeding activity may occur outside this period (depending on the particular species and geographical location of the site) and thus due care and attention should be given when undertaking potentially disturbing works at any time of year.

most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Bats

All species are fully protected by Habitats Regulations 2010 as they are listed on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species in such a way as:
  - to impair their ability to survive, breed, or reproduce, or to rear or nurture young;
  - to impair their ability to hibernate or migrate
  - to affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Bats are afforded the following additional protection through the WCA as they are included on Schedule 5:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works

Works which are liable to affect a bat roost or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSM licence. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Wild Mammals (Protection Act) 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

Legislation afforded to Plants

With certain exceptions, all wild plants are protected under the WCA. This makes it an offence for an 'unauthorised' person to intentionally uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant, for example some species of orchid, are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits any person:

- Intentionally picking, uprooting or destruction of any wild Schedule 8 species

- Selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof

In addition to the UK legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010. These are species of European importance. Regulation 45 makes it an offence to:

- Deliberately pick, collect, cut, uproot or destroy a wild Schedule 5 species
- Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.
- Impacts of legislation on development works

An EPSM licence will be required from the relevant countryside agency for works which are liable to affect species of planted listed on Schedule 5 of the Conservation or Habitats and Species Regulations 2010. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Invasive Species

Part II of Schedule 9 of the WCA lists non-native invasive plant species for which it is a criminal offence in England and Wales to plant or cause to grow in the wild due to their impact on native wildlife. Species include Japanese knotweed *Fallopia japonica*, giant hogweed *Heracleum mantegazzianum* and Himalayan balsam *Impatiens glandulifera.*

Impacts of legislation on development works

It is not an offence for plants listed in Part II of Schedule 9 of the WCA 1981 to be present on the development site however it is an offence to cause them to spread. Therefore, if any of the species are present on site and construction activities may result in further spread (e.g. earthworks, vehicle movements) then it will be necessary to design and implement appropriate mitigation prior to construction commencing.

NATIONAL PLANNING POLICY (ENGLAND)

National Planning Policy Framework

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as UK Biodiversity Action Plan priority species) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting

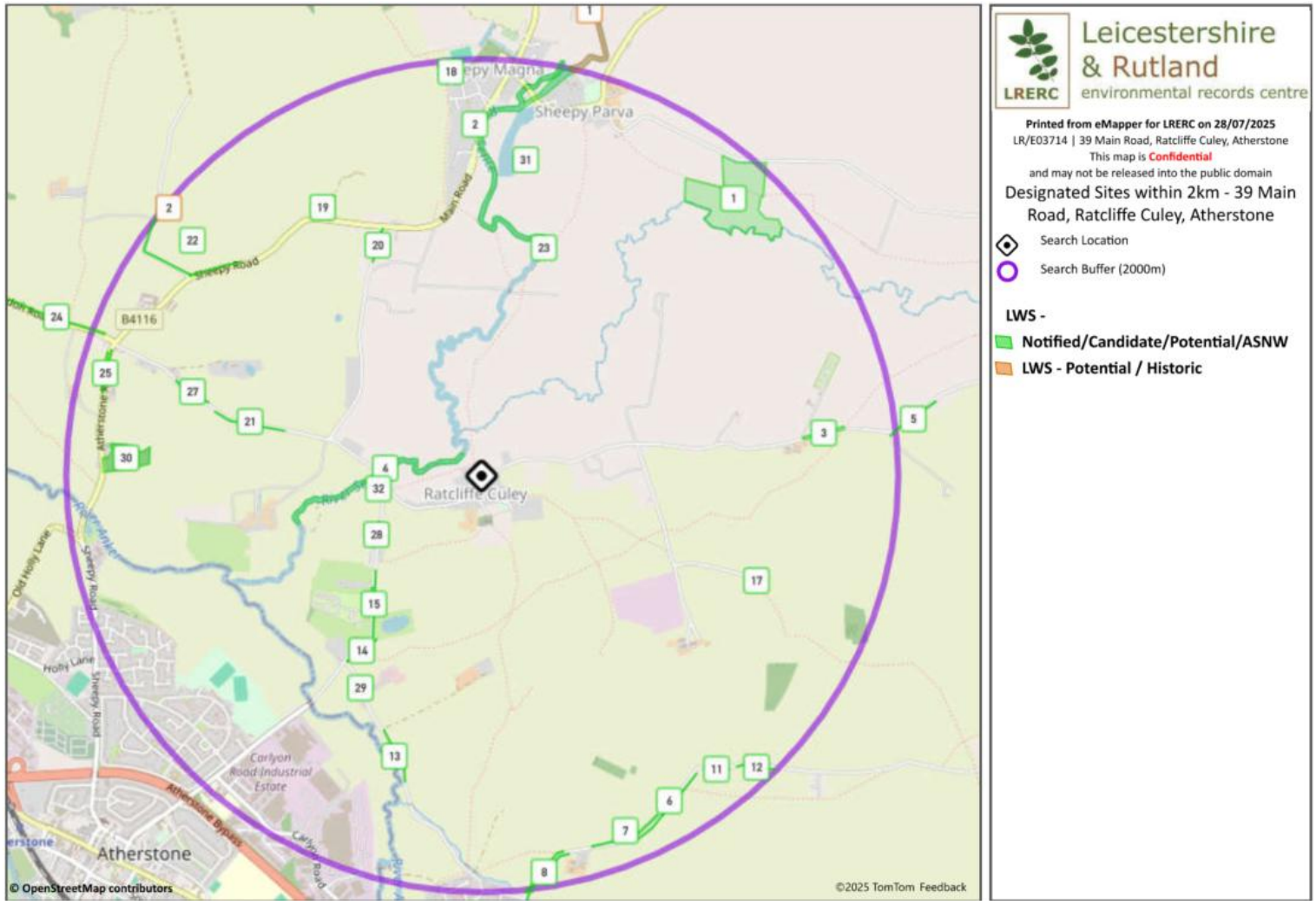
in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and The Biodiversity Duty

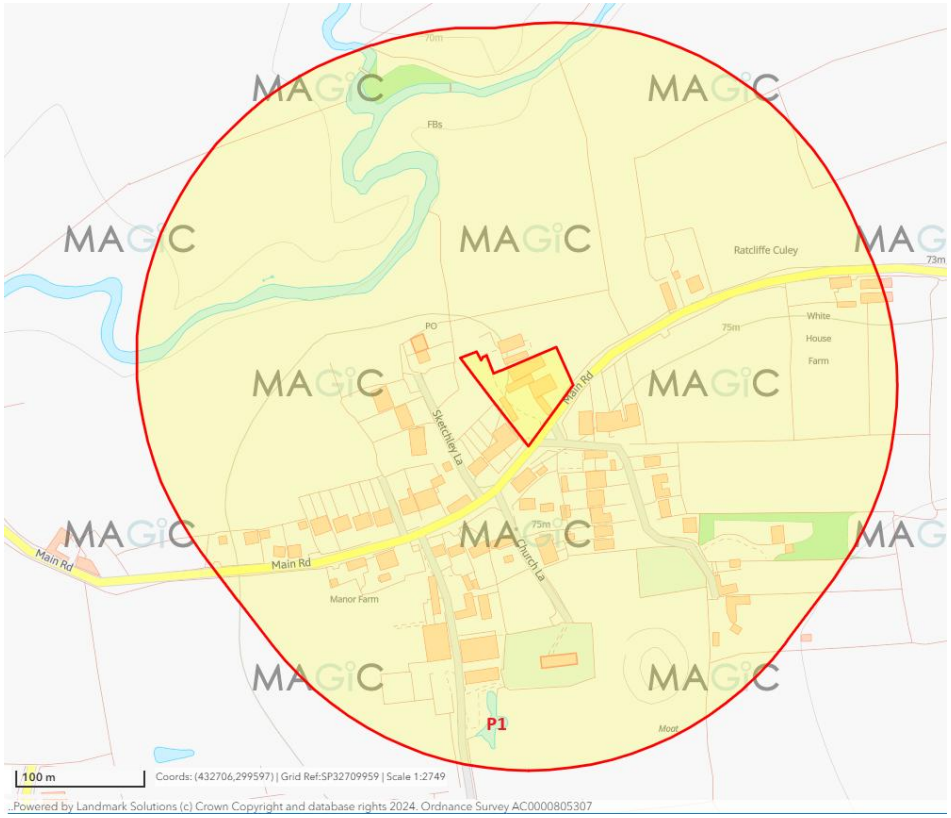
Section 40 of the Natural Environment and Rural Communities (NERC) Act, 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

Appendix 5: Desk study data (Designated sites and Priority habitats)



Ponds within 250m of site



Habitat Suitability Index for Great Crested Newt

ARGUK GCN HSI Calculator

	Pond Name		P1	
	Grid Ref		SP 3262 9937	
SI No	SI Description			
1	Geographic location		1	
2	Pond area		0.9	
3	Pond permanence		0.9	
4	Water quality		0.33	
5	Shade		0.2	
6	Waterfowl effect		0.67	
7	Fish presence		0.33	
8	Pond Density		0.45	
9	Terrestrial habitat		0.33	
10	Macropyhyte cover		0.3	
	HSI Score		**0.47**	
	Pond suitability (see below)		Poor	

Categorisation of HSI Score by Lee Brady

HIS Score	**Pond Suitability**
< 0.50	Poor
0.50 - 0.59	Below average
0.60 - 0.69	Average
0.70 - 0.79	Good
> 0.80	Excellent

Based on ARGUK advice note 5 - Great Crested Newt Habitat Suitability Index