Salthouse Farm, Salters Lane, Werrington, Staffordshire, ST9 0DA

Client: Mr. Lee Brunton

Bat Survey - Preliminary Roost Assessment

06 July 2016

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Executive Summary

Arbtech Consulting Ltd. undertook a Preliminary Roost Assessment at Salthouse Farm, Salters Lane, Werrington, ST9 0DA on 22nd June 2016. The aim of the assessment was to consider the value and suitability of the structures for roosting bats. The development proposals briefly comprise converting an existing barn to dog kennels, and part of a second barn to dog kennels. The third building has been surveyed due to its proximity to the proposed works.

Building reference	Value of building for roosting bats	Recommendations for further survey and assessment
B1	Negligible Likelihood	No further surveys
B2	Negligible Likelihood	No further surveys
B3	Negligible Likelihood	No further surveys

The survey concluded that buildings B1, B2 and B3 comprise negligible likelihood of supporting roosting bats; as such, a planning determination can be made without the need for further surveys.

1.0 Introduction and Context

1.1 Background

Arbtech were commissioned by Mr. Lee Brunton to undertake a Preliminary Roost Assessment (PRA) at Salthouse Farm, Salters Lane, Werrington, ST9 0DA. The assessment is informed by the Bat Conservation Trust publication *Bat Surveys – Good Practice Guidelines* (Collins, 2016).

The PRA was carried out because the site was assessed as having a reasonable likelihood of supporting bats during the Preliminary Ecological Appraisal – Arbtech, July 2016. Preliminary Ecological Appraisal. Salthouse Farm, Salthouse Lane, Werrington, Staffordshire, ST9 0DA.

1.2 Scope of the Report

This report provides a description of all structural features suitable for roosting bats, and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It provides information on constraints to the proposals as a result of roosting bats, and summarises the requirements for any further surveys, to inform subsequent mitigation proposals, achieve Planning or other statutory consent, and to comply with wildlife legislation.

The aim of the assessment was to determine the presence or evaluate the likelihood of presence of roosting bats, and to gain an understanding of how they could use the building or structure. To achieve this, the following steps have been taken:

- A desk study has been carried out, including a request for information from Staffordshire Ecological Record
- A field survey has been undertaken, including an external and internal inspection of the building
- An outline of likely impacts on any known roosts has been provided, based on current development proposals
- Recommendations for further survey and assessment have been made, along with advice on European Protected Species Mitigation Licensing if appropriate

A survey plan is presented in Appendix 1, the proposed Project Plan is included in Appendix 2, and photographs taken during the site survey are included in Appendix 3. A summary of relevant legislation can be found in Appendix 4 and desk study results found in Appendix 5. Full records can be provided on request.

1.3 Site Context

The site is located at National Grid Reference SJ 940 465, and comprises an area of approximately 5.4ha. There are 6 buildings within the site boundaries. However this report will concentrate on the buildings that will be impacted as a result of the proposed works. The site is situated in a very rural environment, surrounded by grazing, grassland and fen habitats, bordered by hedgerows. The A520 runs to the southeast, fragmenting the site from a large block of woodland, and the A52 to the north.

The 'Batscape' is good; there is good connectivity directly from the site and high quality habitat immediately adjacent and in close proximity to the site. Some connectivity and commuting corridors exist in the wider landscape, but main roads are present in the wider landscape, resulting in some fragmentation between the site and the closest substantial block of woodland. There are numerous small rivers and large ponds within the landscape, providing foraging, commuting and a drinking water resource for bats.

1.4 Project Description

This report is prepared in support of a planning application for Salthouse Farm, Salters Lane, Werrington, ST9 0DA.

Local Planning reference number: SMD/2016/0278.

It is proposed a change of use and conversion of two of the existing barns, to boarding kennels. The Plan showing the proposed works is included in Appendix 2. All works areas, storage and haul routes will be included within the site boundaries; access will be provided by existing roads and as such, no additional working footprints are anticipated.

2.0 Method

2.1 Desk Study

Existing bat records relating to the site and a surrounding 2km radius (the study area) were requested from Staffordshire Ecological Record. The data search is confidential information that is not suitable for public release.

A review of the following information sources has also been undertaken to inform the assessment:

- Landscape structure using aerial images from Google Earth
- Designated sites, habitat and species data held on Magic.gov.uk.
- Designated sites information found on Natureonthemap.naturalengland.org.uk
- Information on the surrounding area using OS Opendata 2010

2.2 Site Survey

The survey was undertaken by Jason Guile an accredited agent on license number-CLS01073 on 22nd June 2016.

All buildings that will be impacted by the project proposals (the survey area) were assessed for their potential to support roosting bats. The surveyor systematically searched for features suitable for roosting bats and signs of bat activity, by conducting a non-intrusive visual appraisal from the ground using binoculars, inspecting the external features of the buildings for potential access/egress points, and for signs of bat use. An internal inspection of the building was also made, including the roof spaces of all buildings, using an endoscope, torch and ladders. The surveyor paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows, and carried out a detailed search of numerous features within the roof space.

2.2.1 Breeding birds and other incidental observations

The surveyor also made note of any other ecological constraints observed during the survey, notably the likelihood of presence or signs of breeding birds, and the suitability of the site for breeding barn owls *Tyto alba*.

2.3 Suitability Assessment

The buildings were categorised according to the likelihood of bats being present, in line with best practice guidelines (Collins, J. 2016); the features of the building that dictate the likelihood of roosting

bats are summarised in Table 1. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed.

Table 1: Features of a building that are correlated with use by bats during the summer

Likelihood of bats being present	Feature of building and its context
Higher	Buildings/structures with features of particular significance for roosting bats e.g. mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows. Site is proximate to known or likely roosts (based on historical data).
Lower	A small number of possible roost sites/features, used sporadically by more widespread species. Habitat suitable for foraging in close proximity, but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.

2.4 Limitations

It should be noted that whilst every effort has been made to describe the features on site in the context of their suitability for roosting bats, this does not provide a complete characterisation of the site.

Where only four figure grid references are provided for bat records, 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 bats being present. This is based on suitability of the habitats on the site and in the local area, the ecology and biology of bats as currently understood, and the known distribution of bats as recovered during the desk study.

3.0 Results and Evaluation

3.1 Desk Study Results

A summary of desk study results are provided below; Magic desk study details are included in Appendix 5. Full Desk study results can be provided on request.

3.1.1 Designated sites

The site is situated within 2km of Hulme Quarry National Nature Reserve and falls within a SSSI Impact Risk Zone – to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites. The requirement to consult Natural England will depend on the scale and nature of the development. The site is also on Green Belt land.

The following sites designated for nature conservation are found within 1km of the site:

- Wetley Moor Site of Special Scientific Interest (SSSI), designated for DWARF SHRUB HEATH - Lowland

3.1.2 Landscape

The Magic database shows there is no notable habitat within or in close proximity to the site, although small blocks of the following notable (PH and BAP) habitats are found within 1km of the site:

- Lowland fens, approximately 800m to the southwest
- Deciduous and broadleaved woodland (Priority)

A review of aerial photographs (Figure 1) and OS maps shows the site is important in the context of the surrounding landscape, providing suitable habitat corridors and foraging resource for bats.

Figure 1: Aerial photo of site, showing landscape structure



3.1.3 Historical records

Biological records have been requested from Staffordshire Ecological Record and will be added to this report as soon as available.

3.2 Survey Results

The buildings within the survey area comprised barns with corrugated metal roofs. Each structure is referenced, as illustrated in the map in Appendix 1.

The environmental variables recorded at the time of the survey are: temperature 17'C, humidity 53% and cloud cover 40%.

B1 – Breeze block barn

Building description

- Single storey breeze block- built barn with roof comprising corrugated metal/asbestos sheets (refer to photo 1). The walls of the building appear to be in good condition, providing no roosting opportunity for crevice dwelling bat species. The roof appears to be in good condition; however there are gaps present, allowing access into the building for bat species.

- Along the ridgeline are numerous plastic roof-lights; these appear to be in good condition.
- Internal inspection of the structure showed no separate loft space within the building (refer to photo 2). The internal conditions were the same as the external, indicating fluctuating conditions, unfavorable to bat species.
- Located on the northern elevation of the structure is a single storey extension of individual compartments comprising breeze block walls and a corrugate metal/asbestos roof (refer to photo 3). The structure appears to have been used as a storage area /coal store / pig house. The roof appears to be in need of repair, having warped providing possible access into the individual sections of the extension. Internal conditions of the individual blocks within the extension were the same as the external conditions.

Evidence of bats

- No evidence of live bats or secondary evidence was found on the external or internal of the structure at the time of the survey

B2 – Breeze block barn

Building description

- A single barn comprising individual rooms, breezeblock walls and corrugated metal/asbestos roof (refer to photo 4). The walls of the structure appear to be in good condition, providing no suitable roosting opportunity for crevice dwelling bat species. The roof appears to be in good condition; however there are holes present the corrugated sections of the roof and the walls, allowing possible access into the structure.
- Internal inspection showed the structure is split into two main sections, the western and the eastern sections. The western section of the building comprised an open plan area with no separate roof space (refer to photo 5). Within the room are individual stalls with no ceiling. The internal conditions were similar to the external conditions.
- The eastern section of the structure comprised separate rooms (refer to photo 6). The rooms have a false, wooden ceiling that appears to be in good condition. The loft space spanned the full length of the eastern section of the building (refer to photo 7). There was no insulation present within the roof space and the conditions were similar to the external, unfavorable to bat species. The roof space is approximately 20m by 8m at the widest point.

Evidence of bats

- No evidence of live bats or secondary evidence was found on the external or internal features of the structure at the time of the survey

B3 – Large barn

Building description

- A large barn/warehouse structure comprising breeze block walls with wooden slats above and a corrugated metal/asbestos roof (refer to photo 8).
- The walls and roof of the structure appear to be in good condition, providing no suitable roosting opportunity for bat species. The wooden slats allow access into the structure for bird and bat species.
- Internal inspection showed the barn to comprise of a steel structure that is open plan with no separate loft space (refer to photo 9). The structure is currently used as an indoor training arena for horses. The internal conditions of the structure were similar to the external conditions.

Evidence of bats

- No evidence of live bats or secondary evidence was found on the external or internal of the structure at the time of the survey

3.2.1 Breeding birds and other incidental observations

Active nests were observed in buildings B1 and B2 during the survey.

No barn owls nests were observed during the survey; however the surrounding fields and hedgerows comprise suitable foraging resource for this species.

3.3 Evaluation – Likelihood of bats being present

Taking the desk based assessment and site survey results into account, the following value for roosting bats has been placed on each building.

Table 2: Evaluation of buildings/structures on site

Reference	Likelihood of bats using the building for roosting	Brief summary of justification
B1	Negligible/none	Possible access into the building for bat species; however the internal structure comprised materials and conditions unfavoured to bat species. Foraging resource within the surrounding landscape. No evidence found during the survey.
B2	Negligible/none	Possible access into the building for bat species; however the internal structure comprised materials and conditions unfavoured to bat species. No evidence found within the separate loft space of the building despite foraging resource within the surrounding landscape.
B3	Negligible/none	Internal structure comprises unsuitable materials and conditions for bat species, despite suitable foraging resource in the surrounding landscape. No evidence found during the survey.

4.0 Conclusions and Recommendations

4.1 Conclusions and Impact Assessment

The PRA concludes that buildings B1, B2 and B3 comprise negligible likelihood of supporting roosting bats. As such, a planning determination can be made without the need for further surveys.

Bats are very unlikely to be roosting within these buildings and as such, there are not anticipated to be any impacts on bats as a result of the proposed works.

Bats are protected under the Wildlife and Countryside Act and Conservation Regulations; see Appendix 3 for a summary of legislation protecting bats in the UK.

4.1.1 Breeding birds and other incidental observations

Active nests were observed within B1 and the western section of B2. It is likely that these will be utilised during the breeding season. As the works are to commence outside the breeding season, impacts on birds whilst they are breeding is not anticipated.

Legislation protects all wild birds whilst they are breeding, and prohibits the killing, injuring or taking of any wild bird or their nests and eggs. Certain species of bird, including the barn owl, are subject to special provisions; it is an offence to disturb any bird or their young during the breeding season.

4.2 Recommendations

4.2.1 Survey and assessment

Best practice survey guidelines (Collins, 2016) recommend additional surveys for all buildings assessed as having low to high suitability for roosting bats. The survey effort recommended at this stage is iterative and if bats are recorded emerging from the buildings the survey effort should be adjusted to provide sufficient information to inform European Protected Species Mitigation licensing (EPSML). Buildings assessed as comprising negligible suitability for roosting bats do not normally require further surveys. Appropriate justification for this assessment is provided in Section 3.0 and Table 4 of this report.

However, if bats are found during any stage of the development, work should stop immediately and a suitably qualified ecologist should be contacted to seek further advice.

Recommendations for further survey or assessment associated with each building are provided in Table 5.

Table 3: Survey recommendations

Building Ref	Likelihood of supporting roosting bats	Recommendations
B1	Negligible Likelihood	No further surveys
B2	Negligible Likelihood	No further surveys
B3	Negligible Likelihood	No further surveys

4.2.2 Breeding birds

It is recommended that the works and all vegetation are removed outside the breeding bird season (March to August). However, if this is not possible, the building and vegetation should be surveyed for breeding birds immediately prior to clearance. If active nests are found, they will need to be retained in situ until the young have fledged.

5.0 Bibliography

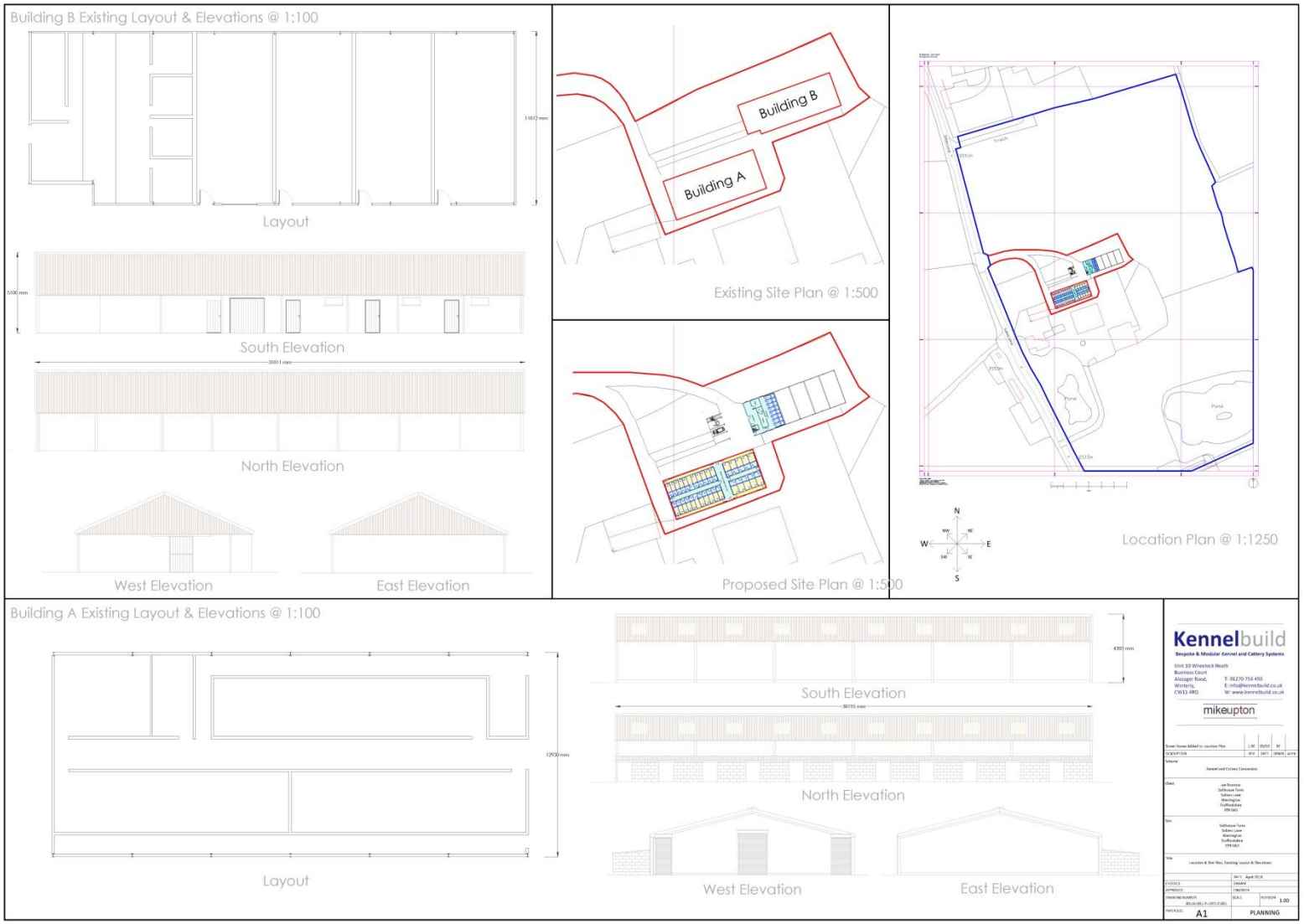
- Collins, J. (ed) (2016). Bat Surveys For Professional Ecologists: Good Practice Guidelines (3rd edn)
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.
- Garland & Markham (2008) Is important bat foraging and commuting
- Google.co.uk
- Magic.gov.uk/Magicmap.aspx

Appendices

Appendix 1: Survey Plan

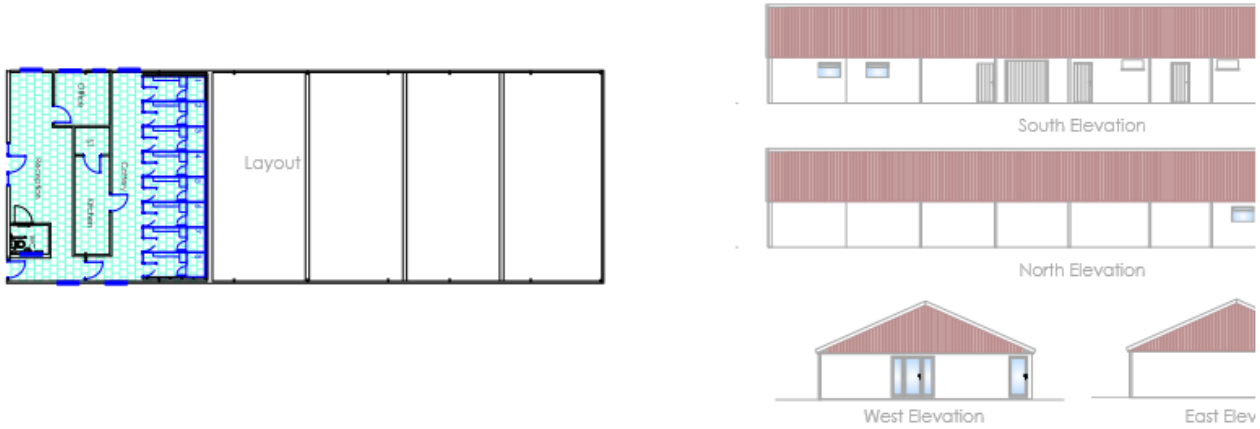


Appendix 2: Existing Plan

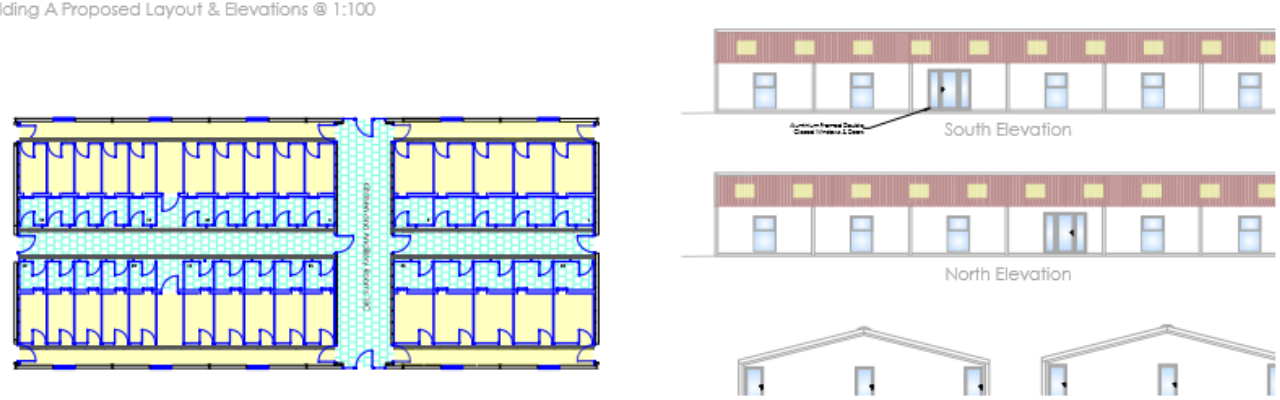


Proposed Site Plan

Building B Proposed Layout & Elevations @ 1:100



Building A Proposed Layout & Elevations @ 1:100



Appendix 3: Photographs

Photo 1: B1 Western elevation	
Photo 2: B1 Internal view	
Photo 3: B1 Northern elevation	

Photo 4: B2 Southern elevation	
Photo 5: B2 Western section	
Photo 6: B2 Eastern section	

Photo 7: B2 Eastern section roof space	
Photo 8: B3 Western elevation	
Photo 9: B3 Internal view	

Appendix 4: Legislation and Planning Policy related to bats

LEGAL PROTECTION

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2.

Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species as:

  a)to impair their ability:

  (i) to survive, breed, or reproduce, or to rear or nurture young

  (ii) to hibernate or migrate

  b)to affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Bats are also protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale

Effect on development works:

A European Protected Species Mitigation (EPSM) Licence issued by the relevant statutory authority (e.g. Natural England) will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored.

The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008)

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.

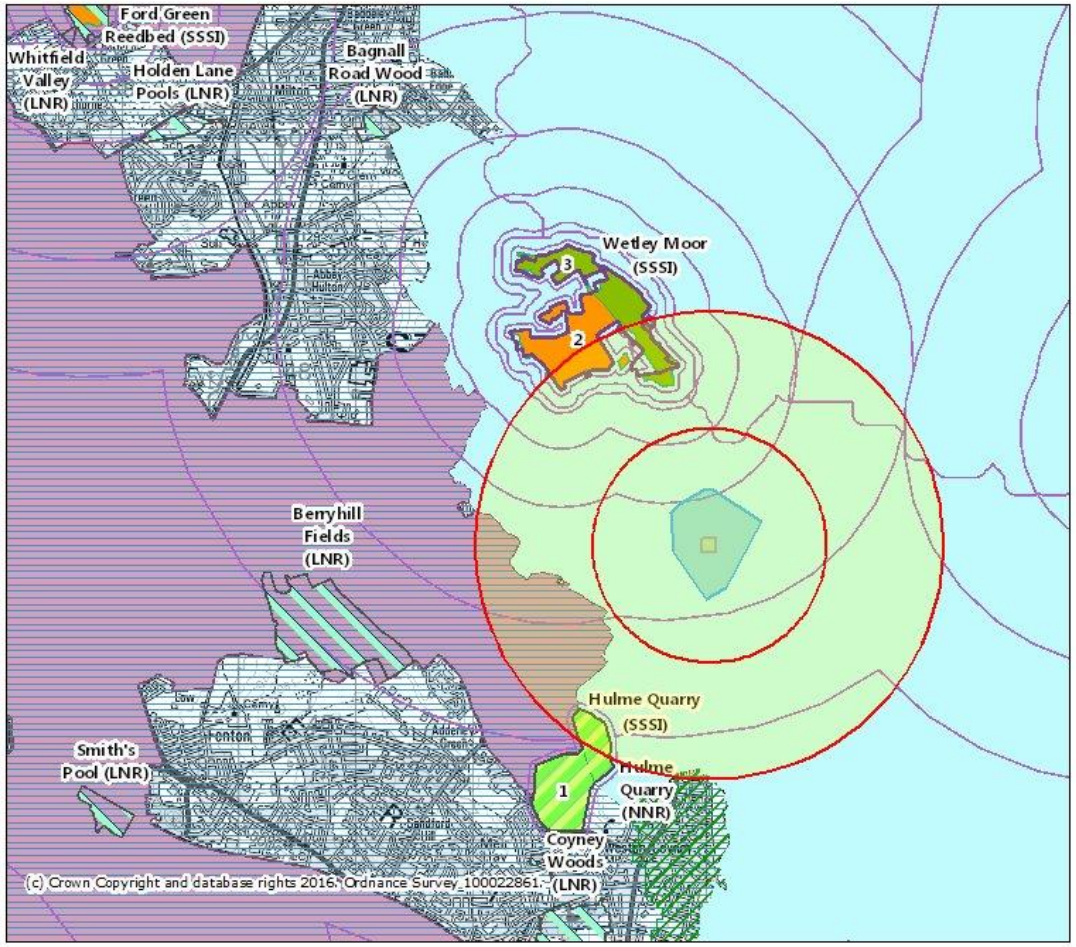
The Natural Environment and Rural Communities Act 2006 and The Biodiversity Duty

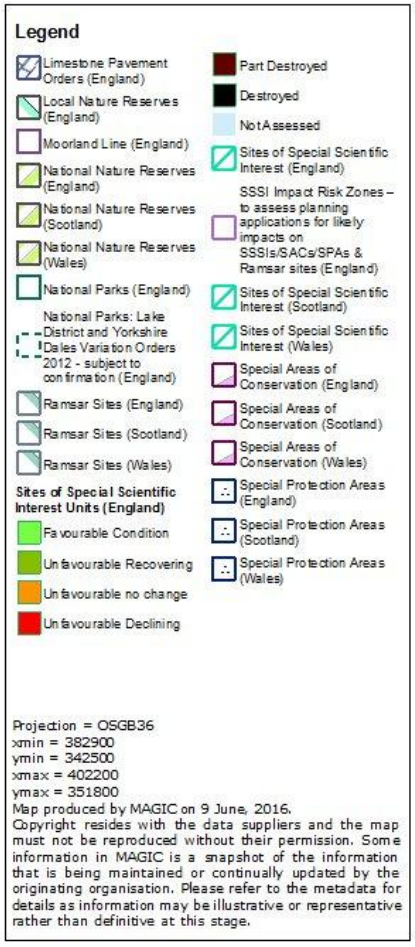
Section 40 of the Natural Environment and Rural Communities (NERC) Act, 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

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 Information

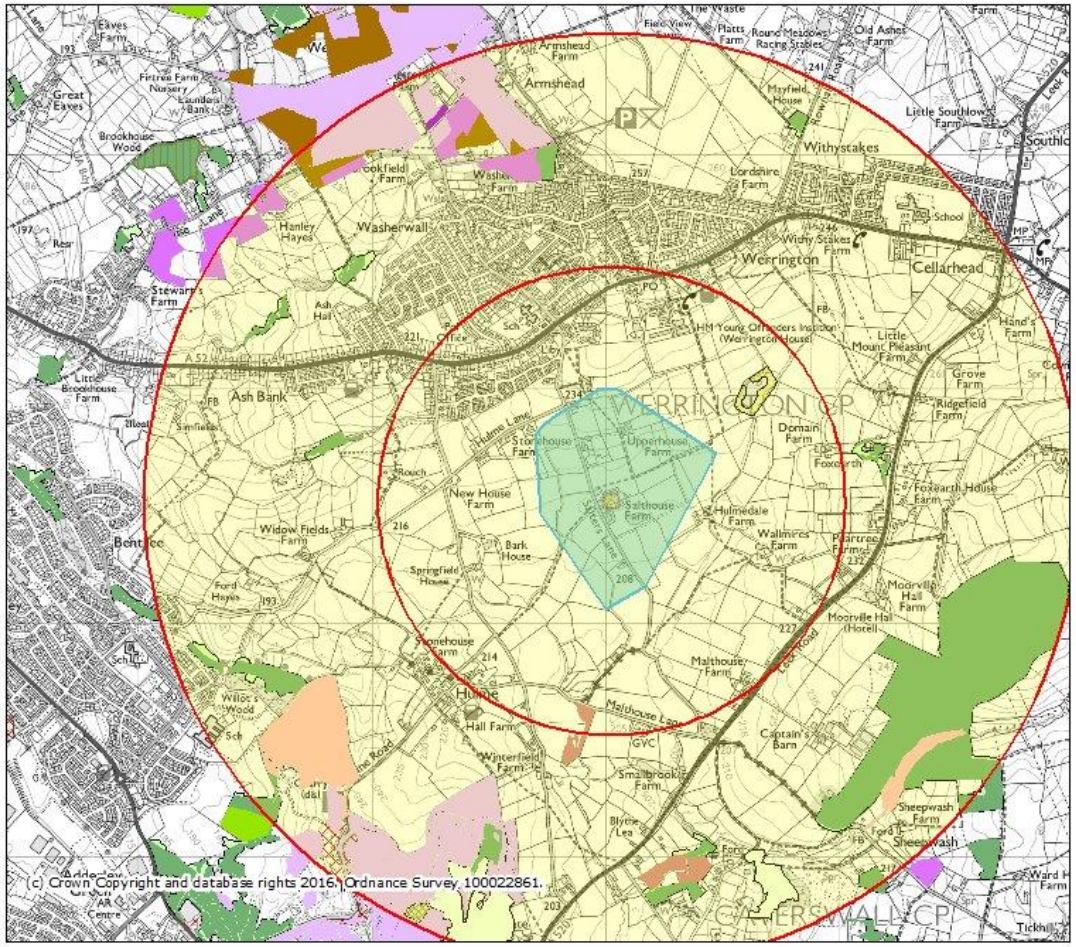
MAGIC **Designated Sites with 1km and 2km buffer**





MAGIC

Notable habitats with 1km and 2km buffer



Legend

- Priority Habitat Inventory - Coastal Saltmarsh (England)
- Priority Habitat Inventory - Coastal Sand Dunes (England)
- Priority Habitat Inventory - Coastal Vegetated Shingle (England)
- Priority Habitat Inventory - Maritime Cliffs and Slopes (England)
- Priority Habitat Inventory - Mudflats (England)
- Priority Habitat Inventory - Saline Lagoons (England)
- Saline Lagoons (Wales)
- Saltmarsh (Wales)
- Sand Dunes (Wales)
- Priority Habitat Inventory - Calaminarian Grassland (England)
- Priority Habitat Inventory - Coastal and Floodplain Grazing Marsh (England)
- Priority Habitat Inventory - Good quality semi-improved grassland (Non Priority) (England)
- Priority Habitat Inventory - Lowland Calcareous Grassland (England)
- Priority Habitat Inventory - Lowland Dry Acid Grassland (England)
- Priority Habitat Inventory - Lowland Meadows (England)
- Priority Habitat Inventory - Purple Moor Grass and Rush Pasture (England)
- Priority Habitat Inventory - Upland Calcareous Grassland (England)
- Priority Habitat Inventory - Upland Hay Meadows (England)
- Priority Habitat Inventory - Lowland Heathland (England)
- Priority Habitat Inventory - Mountain Heaths and Willow Scrub (England)
- Priority Habitat Inventory - Upland Heathland (England)
- Priority Habitat Inventory - Limestone Pavements (England)

Projection = OSGB36
xmin = 388900
ymin = 344300
xmax = 398500
ymax = 349000
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