ARBTECH

Bat Survey - Preliminary Roost Assessment

32 Dilworth Lane, Longridge, Preston PR3 3ST

Michael Dewhurst

Status	Issue	Name	Date
Draft	1	Jo Gregory BA (Hons) MSc GradCIEEM, Senior Consultant	20/03/2017
Reviewed	1.1	Chris Formaggia BSc (Joint Hons) CBiol CEnv MCIEEM MRBS VR - Principal	23/03/2017
Draft – awaiting data	1.2	Jo Gregory BA (Hons) MSc GradCIEEM, Senior Consultant	23/03/2017
Final	2	Jo Gregory BA (Hons) MSc GradCIEEM, Senior Consultant	28/03/2017

Arbtech Consultant's Contact details:
Jo Gregory (Hons) MSc GradCIEEM
Senior Consultant
Tel: 07748275573 **Email:** jg@arbtech.co.uk

Arbtech Consulting Ltd
https://arbtech.co.uk

Limitations and Copyright

Arbtech Consulting Limited has prepared this report for the sole use of the above-named Client or his agents in accordance with our General Terms and Conditions, under which our services are performed. It is expressly stated that no other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by us. This report may not be relied upon by any other party without the prior and express written agreement of Arbtech Consulting Limited. The conclusions and recommendations contained in this report are based upon information provided by third parties. Information obtained from third parties has not been independently verified by Arbtech Consulting Limited.

Executive summary

Arbtech Consulting Ltd. undertook a Preliminary Roost Assessment at 32 Dilworth Lane, Longridge, Preston PR3 3ST on 15th March 2017. The aim of the assessment was to consider the value and suitability of the structures for roosting bats.

The development proposals are for a two storey extension on the western elevation of the existing dwelling and a single storey extension to the rear.

Recommendations - This is work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent.

Survey feature	Recommendations
B1	Two bat emergence/re-entry surveys are required during the active bat season (May – September) to confirm the presence/likely-absence of bats roosting in the building. These surveys should be completed during the optimal survey period mid-May to August inclusive. Sub-optimal: early May and September. One of these surveys should be a dawn re-entry survey. Two surveyors are required to provide full coverage of the suitable roosting features noted on the building. If bat roosts are confirmed an additional survey will be required to inform a European Protected Species Mitigation Licence.

For full justification of these recommendations, please go straight to section 4.0 Conclusions, Impacts and Recommendations. Otherwise, the full report starts below.

Contents

1.0 Introduction and Context

1.1 Background

Arbtech were commissioned by Michael Dewhurst to undertake a Preliminary Roost Assessment (PRA) at 32 Dilworth Lane. The assessment is informed by the Bat Conservation Trust publication *Bat Surveys for Professional Ecologists – Good Practice Guidelines* (Collins, J. (Ed) 2016).

No previous reports have been produced for this site by Arbtech Consulting Ltd.

1.2 Site Context

The site is located at National Grid Reference SD 60988 37310, and comprises an area of approximately 285sqm (0.0ha). There is one building within the site boundaries. One building was surveyed as this will be effected by the proposed development.

1.3 Scope of the report

This report provides a description of all 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 the presence of roosting bats, and to gain an understanding of how they could use the site. To achieve this, the following steps have been taken:

- A desk study has been carried out, including a request for bat records from the Lancashire Environmental Records Network (LERN).
- A field survey has been undertaken, including an external survey and internal inspection where possible.
- 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 (where available), desk study results are provided in the Appendix 3 and a summary of relevant legislation can be found in Appendix 4.

1.4 Project Description

This report is prepared in support of a planning application that is being prepared for submission to Ribble Valley Borough Council. The proposed development is described as: a two storey extension on the western elevation of the existing dwelling and a single storey extension to the rear. The roof structure of the existing single storey extension will be removed and the additional second storey will be added and connected to the existing main roof. The proposed site plan is included in Appendix 2 (where available).

2.0 Methodology

2.1 Desk Study methodology

Existing bat records relating to the site and a surrounding 2km radius (the study area) are required to conform to national guidelines and these have been obtained from Merseyside BioBank. 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 and OS maps
- Designated sites, habitat and granted EPSL records held on Magic.gov.uk.

2.2 Site Survey methodology

The survey was undertaken by Jo Gregory (Natural England Bat Licence Number: 2015-11994 CLS-CLS) on 15th March 2017.

All features that will be impacted by the project proposals were assessed for their bat roosting and/or commuting habitat. The surveyor systematically surveyed all features suitable for-bats and signs of bat activity.

For any surveyed buildings:

A non-intrusive visual appraisal from the ground using binoculars, inspecting the external features of the building(s) for potential access/egress points, and for signs of bat use. An internal inspection of the building was also made, including the living areas of derelict or abandoned buildings and the accessible 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.

For any surveyed trees

A visual inspection from ground level using binoculars and where accessible an internal inspection of suitable roosting features using an endoscope, torch and ladders.

2.3 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 barn owls *Tyto alba*.

2.4 Suitability Assessment

All affected survey features on site were categorised according to the likelihood of bats being present, in line with best practice guidelines (Collins, J. (Ed) 2016). The features that dictate the likelihood of roosting bats are summarised in Tables 1 and 2 below. 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

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.

Table 2: Features of a tree that are correlated with use by bats

Likelihood of bats being present	Feature of tree and its context
Higher	A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Lower	A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features seen with only very limited roosting potential.

2.5 Limitations – evaluation of the methodology

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. 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.

There were no specific limitations to the survey regarding internal access, exterior visibility, safety from biotic (e.g. wasps) or abiotic (e.g. asbestos) sources or adverse weather. Therefore, the survey was carried out to its fullest extent, and the conclusions based on the maximum range of evidence.

3.0 Results and Evaluation

3.1 Desk Study Results

A summary of desk study results are provided below; full details are included in Appendix 3.

3.2 Designated sites

There are no statutory designated sites and one non-statutory sites within the study area. Their location and extent are illustrated in Appendix 3. Table 3 provides details of the designated sites including their reasons for notification.

Table 3: Designated sites within 2km radius of the site

Designated site name	**Distance from site (approximately)**	**Reasons for notification and integral value**
Statutory designated sites		
Site of Special Scientific Interest (SSSI) Impact Risk Zone	0m the site is located within the SSSI Impact Risk Zone	SSSI Impact Risk Zone due to Red Scar and Brook Tun SSSI located approx. 2790m to the southwest
Non-statutory designated sites		
Forest of Bowland Area of Outstanding Natural Beauty	0m site located within the AONB boundary	AONBs are designated areas where protection is afforded to protect and manage the areas for visitors and local residents.

3.3 Landscape

A review of the designated sites, aerial photographs (Figure 1), the Magic database and OS maps has been undertaken. Collated together, the site's local bat habitat is described below:

The site is situated in Longridge on the outskirts of Preston in Lancashire. The landscape immediately adjacent to the site is dominated by residential areas to the south and west with pastureland to the north and east. Several reservoirs are located within the wider landscape including Spade Mill reservoir to the east, Alston reservoirs to the south and Dilworth Upper reservoir to the north. Residential gardens and tree lined field boundaries provide connectivity from the site to these reservoirs and several scattered woodlands which will be key foraging areas for bats.

Priority habitats within 2km of the site are listed in Table 4 below.

Table 4: Priority Habitat Inventory within 2km (Magic.gov.uk):

Habitat	**Closest distance from site**
Good quality semi-improved grassland	~850m south
Lowland Meadows	~1235m south
Lowland Fens	~1780m south
Ancient Woodland	~665m southeast
Deciduous Woodland	~665m southeast
Traditional Orchards	~40m northwest
National Forest Inventory	Broadleaved woodland ~150m east

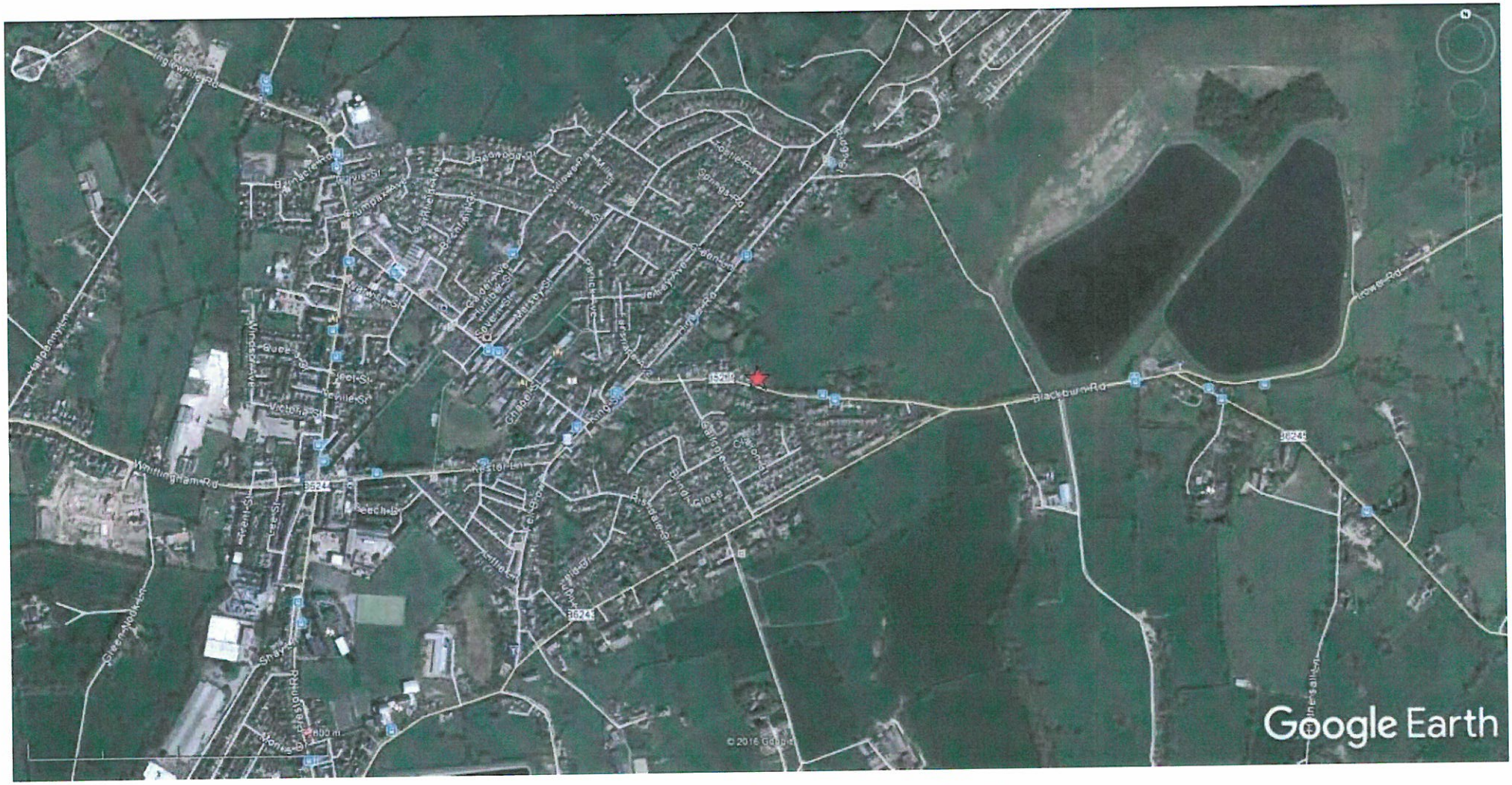


Figure 1: Aerial photo of site, showing landscape structure

3.4 Historical records

Lancashire Environmental Records Network (LERN) have been commissioned to provide bat records for within 5km of the site. The full data can be provided on request and will be analysed and summarised in Table 5 below upon receipt.

Table 5: Historical records of bats within 5km of the site

Common name	Scientific binomial	Number of records	Number of roost records	Maternity roost records	Closest record to site
Unidentified Bat	Myotis	1	1	0	4375
Daubenton's Bat	Myotis daubentonii	2	0	0	3291
Noctule Bat	Nyctalus noctula	12	0	0	3233
Pipistrelle Bat species	Pipistrellus	1	0	0	4727
Common Pipistrelle	Pipistrellus pipistrellus	36	8	0	263
Soprano Pipistrelle	Pipistrellus pygmaeus	5	0	0	4727
Brown Long-eared Bat	Plecotus auritus	3	2	0	2505

A search of the magic database for granted European Protected Species Mitigation Licences (EPSMLs) for bats within a 2km radius found no licenced site with the nearest licenced site located approx. 2465m to the east (EPSM2011-3791, C-PIP; BLE, Destruction of a resting place).

Table 6: Granted EPSMLs (bats) within 2km of the site

Case reference of granted application	Approx. distance from site	Bat Species Effected	Licence Start Date:	Licence End Date:	Impacts allowed by licence
None within search radius					

3.5 Field Survey Results

There is one survey buildings on the site. This building is designated as B1 and is illustrated in the map in Appendix 1. The environmental variables recorded at the time of the survey are shown in Table 7.

Table 7: Environmental variables during the survey

Date: 15/03/2017	
Temperature	22°C
Humidity	36%
Cloud Cover	10%
Wind	0.40m/s
Rain	None

3.6 Site Feature descriptions and photos

Building B1 Description

B1 is a two storey detached dwelling with a single storey section on the western elevation. The dwelling is brick built with a pebbledash render on the walls of the second storey. Windows and doors are UPVC and tight fitting with large stone lintels and sills to the windows. The hipped roof of the main two storey section is constructed of slate tiles with clay ridge tiles along the main ridge and hips. A bay window is present on the western side of the front (south) elevation with a half hipped slate roof. A small porch is present above the front door located on the eastern side of the front (south) elevation. This is wood framed with a slate roof and clay ridge tiles. Wooden soffit boxes are present on all elevations and these are tight fitting.

Photo 1: South elevation of B1.

Photo 2: Single storey section on western side of B1.

Photo 3: Bay window with half hipped slate roof.

Photo 4: Small porch above the front door.

Photo 5: East elevation of B1.

Photo 6: South elevation of B1.

There is missing mortar in the ridge tiles and hipped tiles of the main roof, particularly in the central ridge tile and in the eastern hipped tiles on the south elevation. Further missing mortar is visible in the end hipped tiles on the southwest and southeast corners of the main roof structure. Two areas of missing mortar are also present in the ridge tiles of the single storey section, visible on the southern elevation. A ridge tile has slipped on the western elevation where the central ridge tiles meet the hipped tiles. When viewing the main roof structure from the rear (north elevation) gaps and dislodged ridge tiles are visible along the central ridge of the main roof. Gaps in the roof slates are also present on the northern elevation roof. All of these gaps can be utilised by crevice dwelling bat species to roost between the slates and within the small voids behind the ridge tiles and hipped tiles.

A chimney is located on the northern elevation with lead flashing around the base which is tight fitting providing no access points that could be used by bats.

Photo 7: Missing mortar in ridge tiles on south elevation.

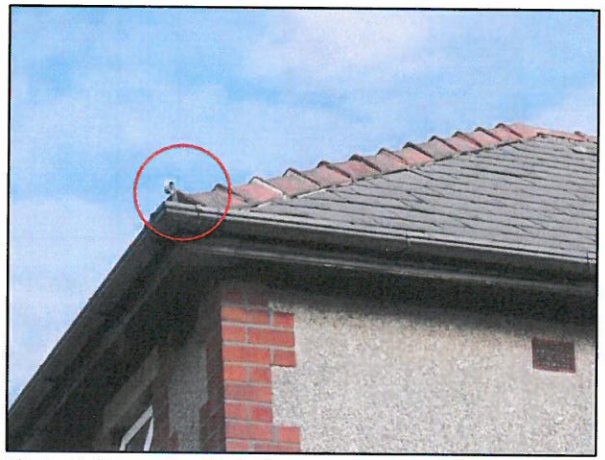


Photo 8: Example of missing mortar at end of hipped tiles.

Photo 9: Missing mortar in ridge tiles and gaps in slates.

Photo 10: Dislodged ridge tiles on western elevation where central ridge meets hipped tiles.

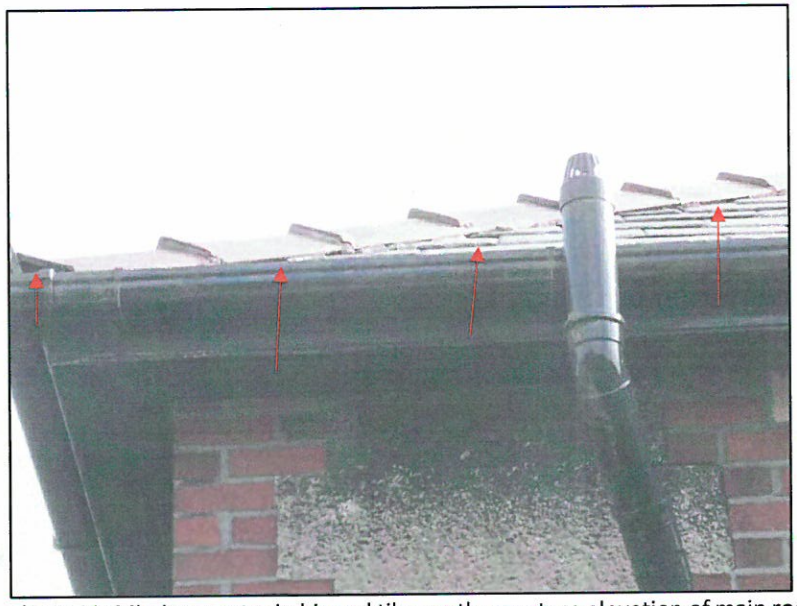


Photo 11: Missing mortar in hipped tiles on the western elevation of main roof.

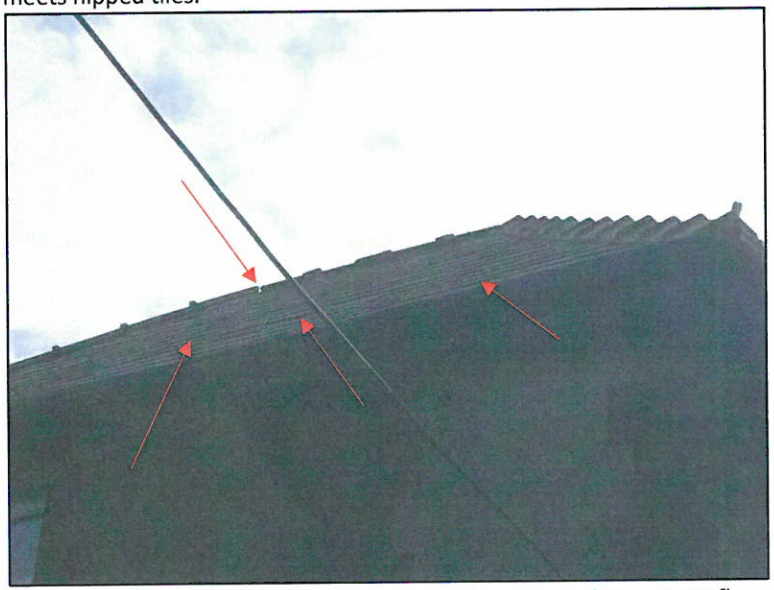


Photo 10: Dislodged ridge tile and gaps in slates (north elevation roof).

Photo 11: Tight lead flashing around base of chimney.

Interior

There is one loft space measuring approx. 2m in height to the ridge, 9m in length and 7m in width with a water tank in the centre. The roof is unlined and daylight is visible through the slates which correlated with the gaps in the slates noted on the northern elevation roof externally. Daylight is also visible in the centre of the roof structure where the missing mortar in the central ridge tile was noted externally. The floor of the loft space is partially boarded but the majority is covered in very old loft insulation. This would usually provide a good surface for identifying evidence of a bat roost i.e. bat droppings. However, the loft is infested with flies and the loft insulation was covered with dead flies and debris making locating any droppings very problematic.

Photo 13: Loft space showing unlined roof structure.

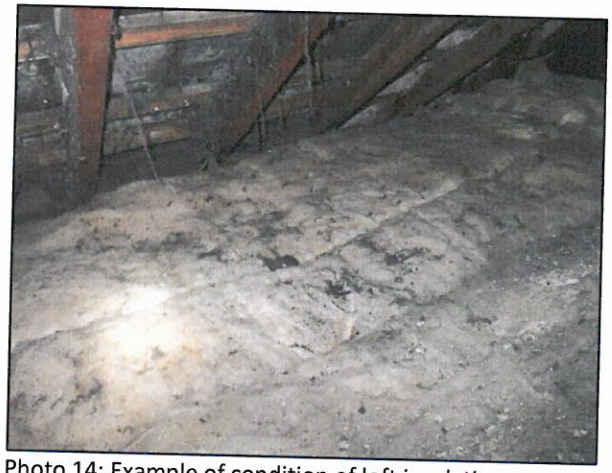


Photo 14: Example of condition of loft insulation.

Photo 15: Daylight visible through roof slates.

Photo 16: Central ridge correlating with missing mortar.

Photo 17: Debris and dead flies on loft insulation.

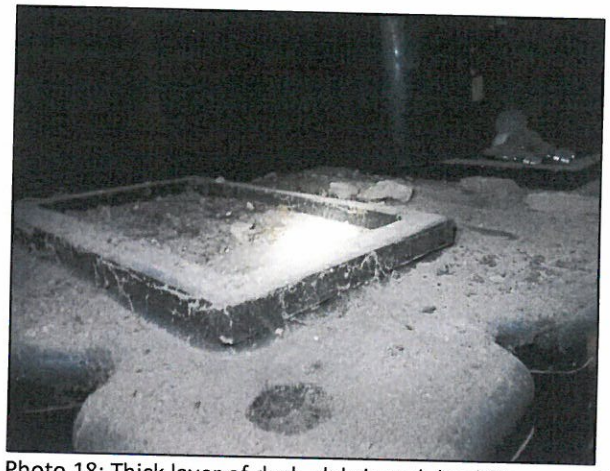


Photo 18: Thick layer of dusk, debris and dead flies on water tank.

Evidence of bats

No evidence of bats was located internally or externally during the survey. However, several suitable roosting features were noted in the main roof structure and the single storey roof structure which will be impacted by the proposed extensions.

Breeding birds and other incidental observations

No evidence of nesting birds was observed during the survey. There are hedges around the parking area on the northern side of the site but these will not be impacted by the proposed extensions.

4.0 Conclusions, Impacts and Recommendations

4.1 Informative guidelines

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. 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.

There are three possible outcomes of this survey, each with specific recommendations. These are outlined below:

Confirmed bat roost

Best practice survey guidelines (Collins, 2016) recommends additional surveys for confirmed roosts. Three further surveys are required to characterise the bat roost present including species, roost type and access points to inform a European Protected Species Mitigation Licence (EPSML) application with Natural England. Surveys must be completed during the active bat season (May – September). At least two of the surveys should be completed during the optimal survey period mid-May to August, and at least on the surveys should be a dawn re-entry survey (Collins, J. 2016).

Low, moderate or high likelihood of a bat roost present

Best practice survey guidelines (Collins, 2016) recommends additional surveys for features assessed as having low to high suitability for roosting bats. One, two or three further surveys are required to confirm presence/likely-absence of a bat roost, based on a low, medium or high roost likelihood evaluation. Surveys must be completed during the active bat season (May – September). If more than one survey is recommended, at least one of them should be completed during the optimal survey period mid-May to August, and at least one the surveys should be a dawn re-entry survey (Collins, J. 2016). The survey effort recommended at this stage is iterative and if bats are recorded emerging from the buildings, a further survey will be required to provide sufficient information to inform an EPSML application to Natural England.

Negligible likelihood of a bat roost present

Buildings assessed as comprising negligible suitability for roosting bats do not normally require further surveys. 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.

Appropriate justification for this assessment is provided in Section 3 and Tables 1 and 2 of this report.

4.2 Evaluation

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

Table 8: Evaluation of buildings/trees on site

Ref	Survey assessment conclusions (with justification)	Foreseen impacts	Recommendations	Enhancements The Local Planning Authority has a duty to ask for enhancements under the NPPF and circular 06/2005: Biodiversity and Geological Conservation. Para.99
B1	This building has a **moderate** likelihood of supporting roosting bats.	As the proposals include the extension of this building, any bat roosts could be destroyed. This could result in death/injury of bats.	Two bat emergence/re-entry surveys are required during the active bat season (May – September) to confirm the presence/likely-absence of bat roosting in the building. These surveys should be completed during the optimal survey period mid-May to August inclusive. Sub-optimal: early May and September. One of these surveys should be a dawn re-entry survey. Two surveyors are required to provide full coverage of the suitable roosting features noted on the building. If bat roosts are confirmed an additional survey will be required to inform a European Protected Species Mitigation Licence.	To be confirmed following further surveys.

Breeding Birds				
B1	This building contains negligible habitat value for nesting birds. The hedges on the southern side of the site provide suitable nesting habitat for birds.	Although the hedges will be retained active nests could be disturbed during the works.	Building works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the hedges should be undertaken immediately prior to clearance. All active nests will need to be retained until the young have fledged.	Install three Schwegler bird boxes on the extended dwelling and/or shed in the back garden e.g. Schwegler No 17 swift nest box Schwegler 1SP Sparrow Terrace Schwegler 1B nest boxes Schwegler 2H Robin Boxes Nest boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground on an area of the tree trunk where foliage will not obscure the entrance hole.

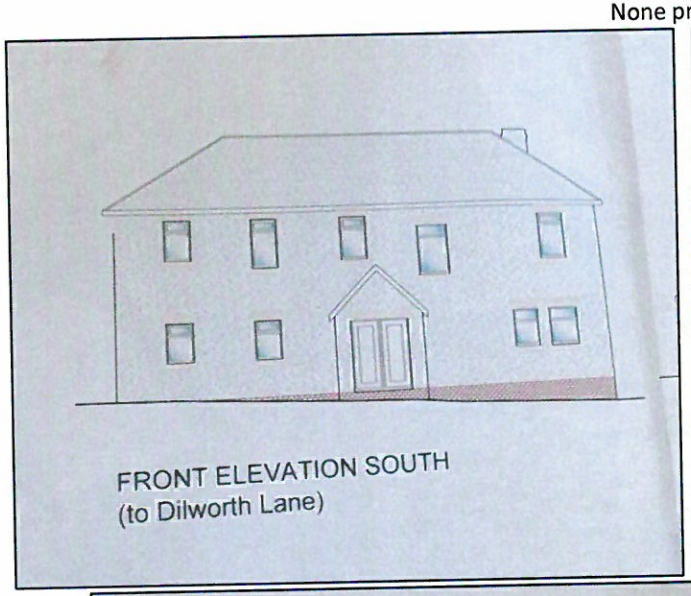
5.0 Bibliography

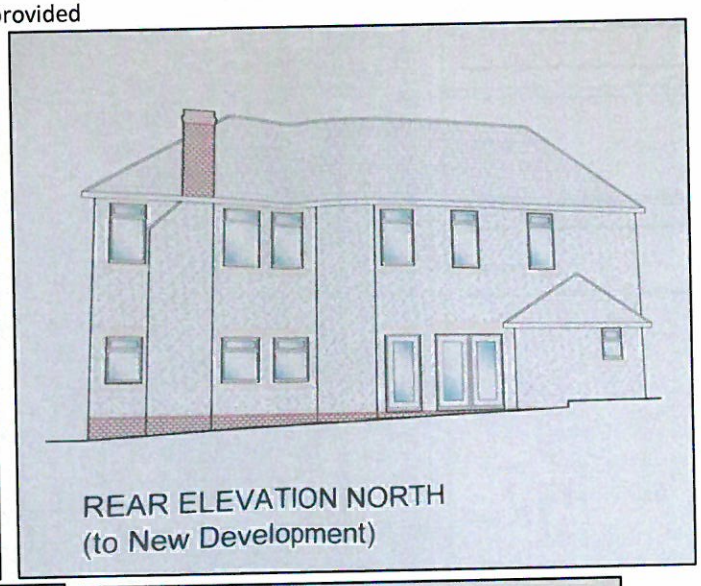
- Arbtech Consulting Ltd BS5837:2012 Tree Survey (January 2017)
- British Trust for Ornithology (2016) www.bto.org/about-birds/nnbw/putting-up-a-nest-box
- Collins, J. (ed.) (2012). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 3rd edition, Bat Conservation Trust, London.
- Garland & Markham (2008) Is important bat foraging and commuting habitat legally protected?
- Google Earth (2017) accessed on 15/03/2017.
- Magic database (2017) http://www.magic.gov.uk/MagicMap.aspx accessed on 15/03/2017.
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

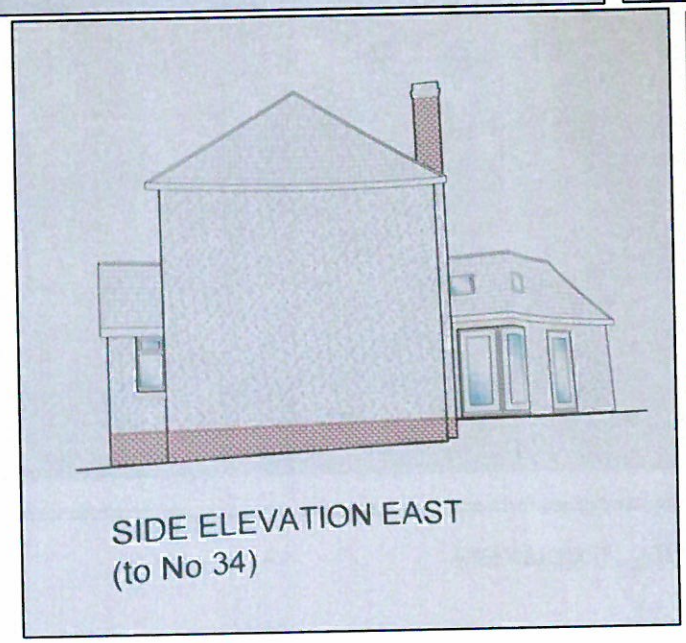
Appendix 1: Survey Plan

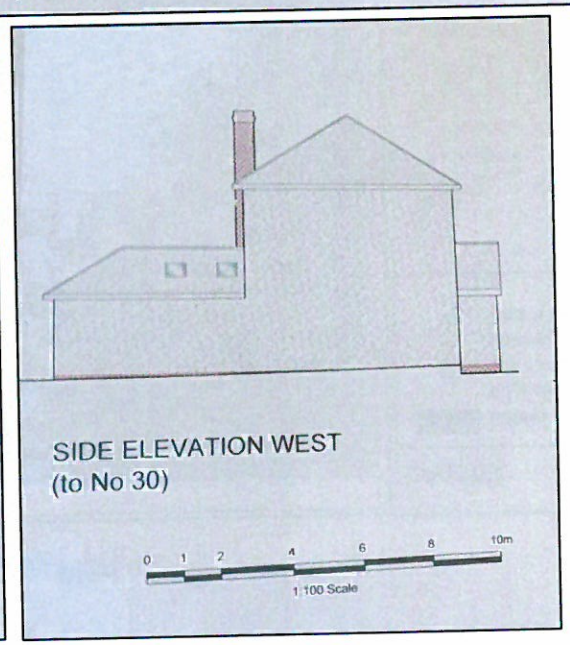
Appendix 2: Proposed Site Plan

None provided



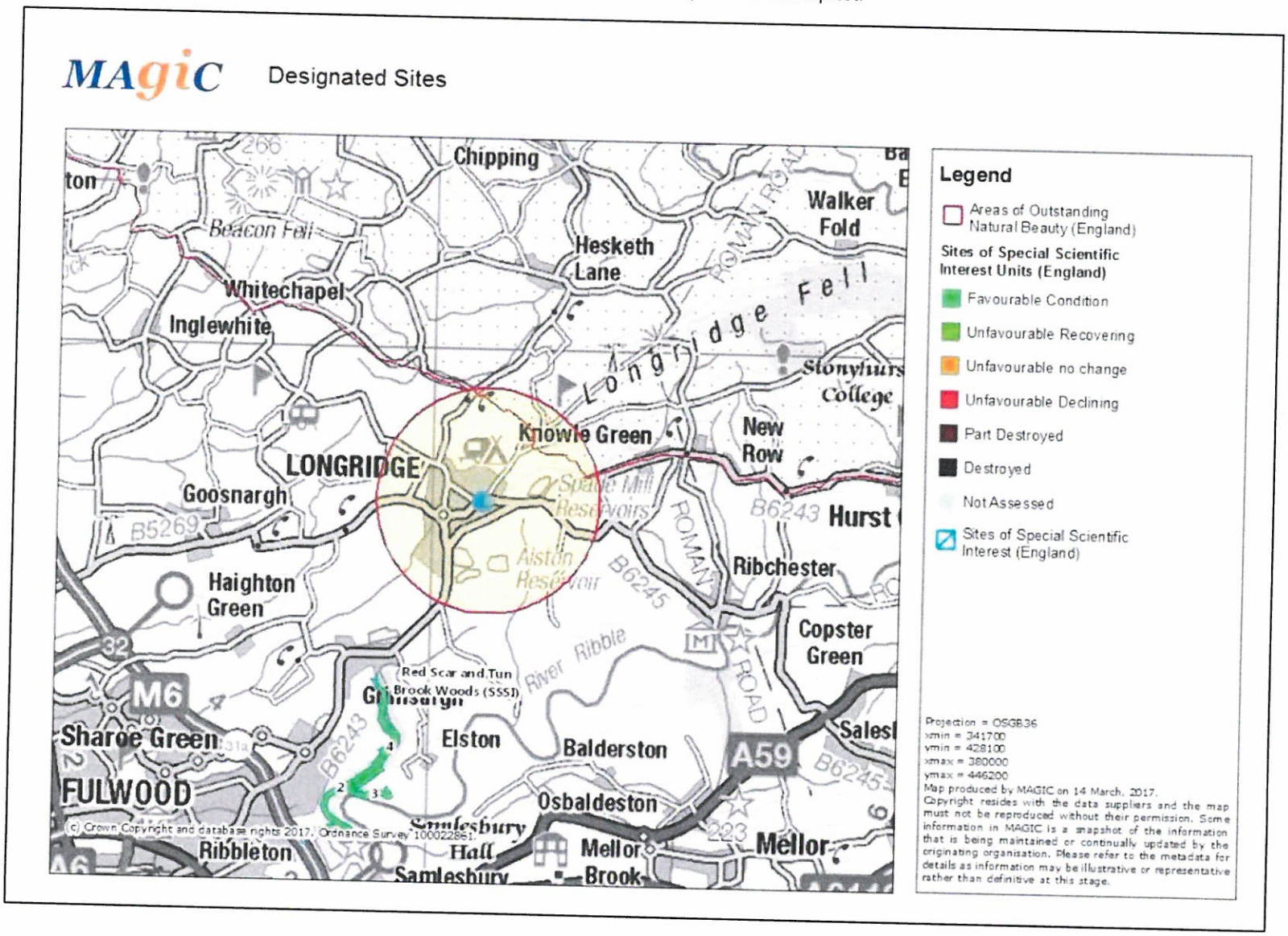




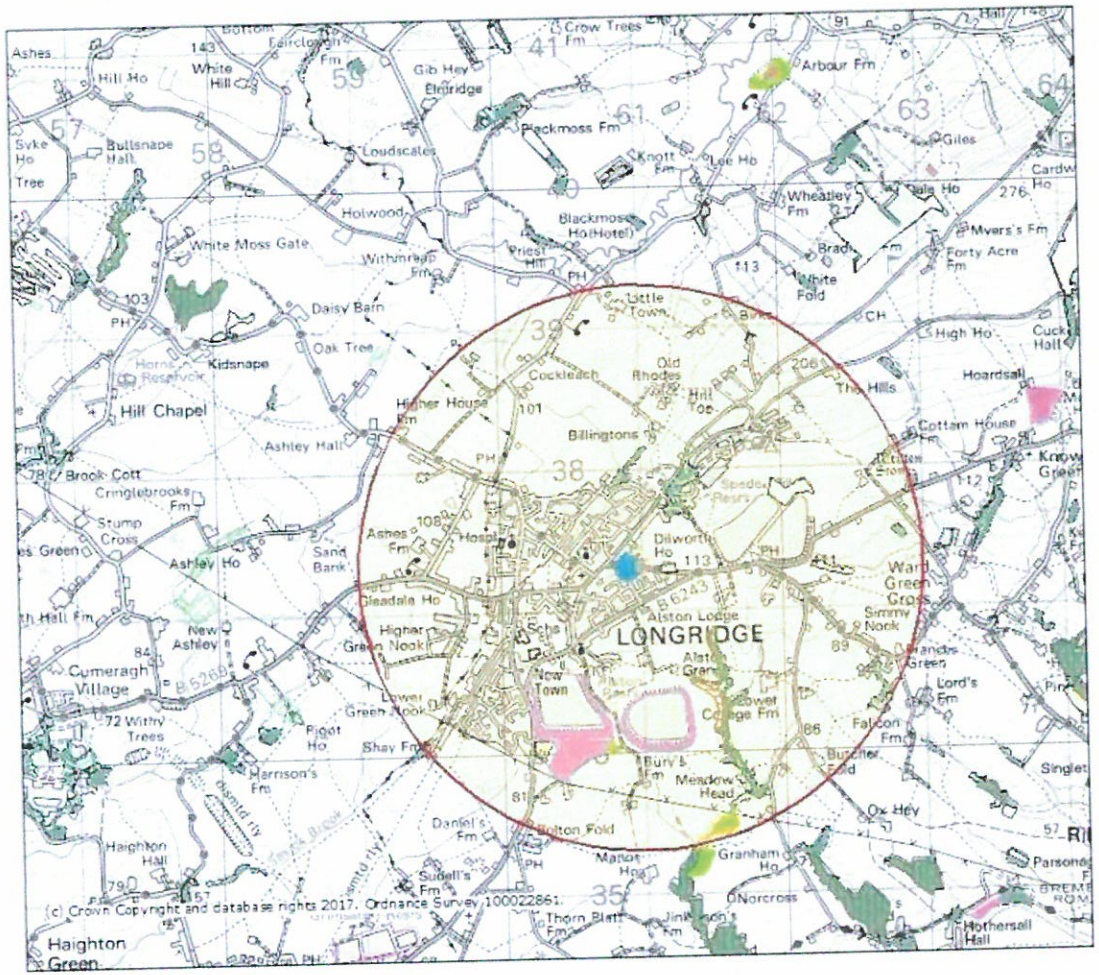


Appendix 3: Desk Study Information

Full historical records can be provided on request.



MAGIC Priority Habitats



Legend

- Priority Habitat Inventory - Good quality semi-improved grassland (Non Priority) (England)
- Priority Habitat Inventory - Lowland Meadows (England)
- Priority Habitat Inventory - Lowland Fens (England)

Ancient Woodland (England)

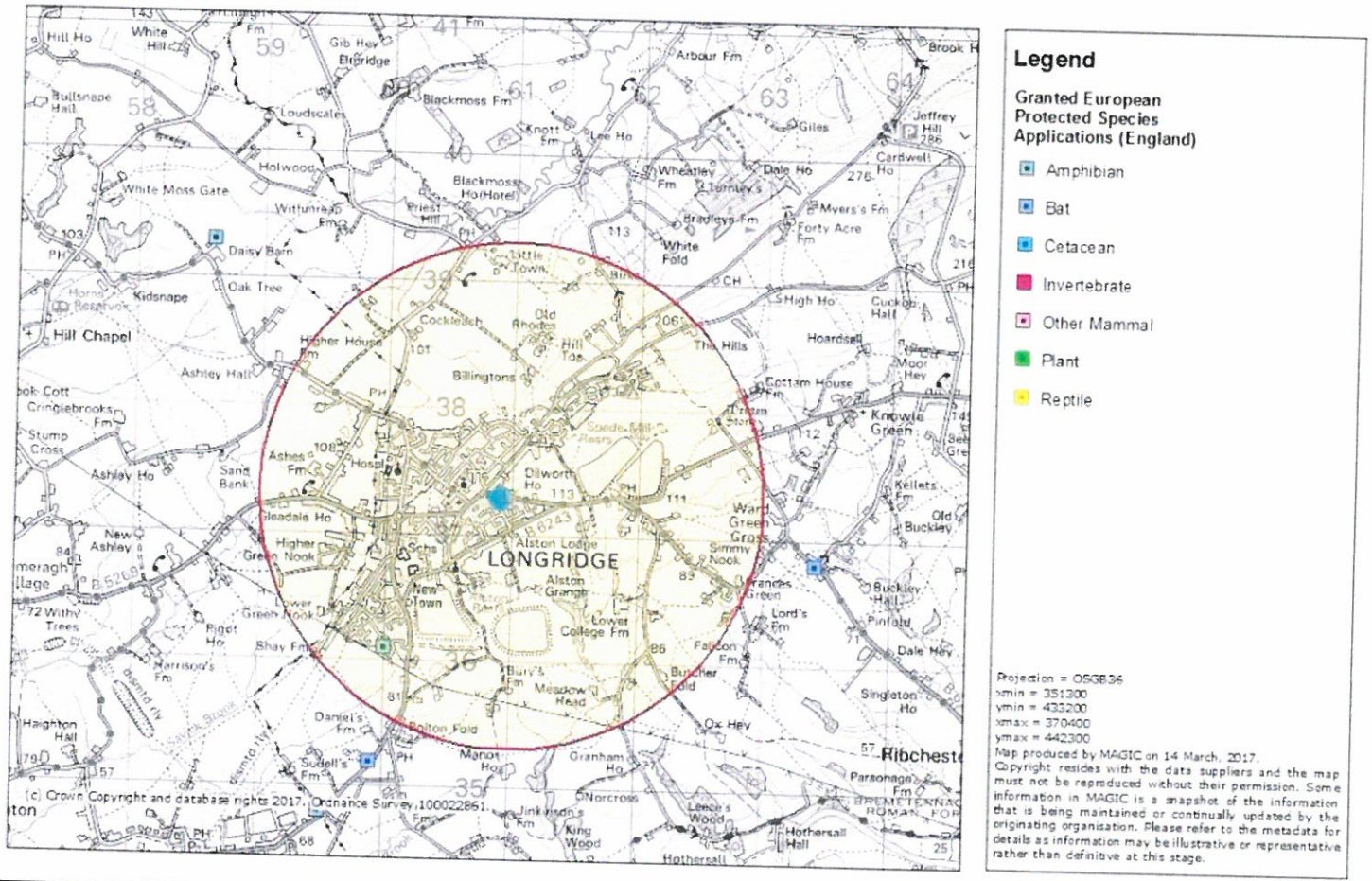
- Ancient and Semi-Natural Woodland
- Ancient Replanted Woodland
- Priority Habitat Inventory - Deciduous Woodland (England)

National Forest Inventory (GB)

- Assumed woodland
- Broadleaved
- Cloud / shadow
- Conifer
- Coppice
- Coppice with standards
- Felled
- Felled
- Ground prep
- Low density
- Mixed mainly broadleaved
- Mixed mainly conifer
- Shrub
- Uncertain
- Windthrow
- Young trees
- Priority Habitat Inventory - Traditional Orchards (England)
- Priority Habitat Inventory - Fragmented heath (Non Priority) (England)
- Priority Habitat Inventory - Grass Moorland (Non Priority) (England)
- Priority Habitat Inventory - No main habitat but additional habitat exists (England)

Projection = OSGB36
xmin = 350800
ymin = 433400
xmax = 369900
ymax = 442400
Map produced by MAGIC on 14 March, 2017.
Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGIC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.

MAGIC EPSLs


LONGRIDGE
Legend
Granted European Protected Species Applications (England)
Amphibian
Bat
Cetacean
Invertebrate
Other Mammal
Plant
Reptile
Projection = OSGB36
xmin = 351300
ymin = 433200
xmax = 370400
ymax = 442300
Map produced by MAGIC on 14 March, 2017.
Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGIC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.
(c) Crown Copyright and database rights 2017. Ordnance Survey 100022861

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.