



Preliminary Roost Assessment

Buildings at Hedges Farm, Worminghall Road, Oakley, HP18 9QY

Elmtree Enterprises Ltd

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Industry Guidelines and Standards

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

Executive Summary

Arbtech Consulting Limited was instructed by Elmtree Enterprises Ltd. to undertake a Preliminary Roost Assessment (PRA) at Hedges Farm, Worminghall Road, Oakley, HP18 9QY (hereafter referred to as “the site”). The survey was required to inform a planning application for a proposed demolition and conversion of an agricultural building into residential units (hereafter referred to as “the proposed development”).

The PRA focussed on a single farm building (B6). Evidence of bat activity was noted elsewhere on site, in other agricultural buildings to the south of B6, however no bat activity or suitable features to support bats were noted within B6.

The following is work you will need to commission to comply with legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in Table 6 of this report.

<i>Feature</i>	<i>Description</i>	<i>Foreseen impacts</i>	<i>Recommendations Measures required to adhere to guidance, legislation and planning policies.</i>
Roosting bats (B6)	The building has no suitable features for bats. It has a negligible habitat value.	Bats are very unlikely to be roosting within this building and as such, there are not anticipated to be any impacts on bats in this location as a result of the proposed development.	In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.
Foraging and commuting bats	The farmland and hedgerows on site could be used by local bat populations for foraging and commuting. These could also be used by bats dispersing from nearby roosts outside of the site. The author found bat droppings in multiple locations of the wider site (B3, B4, B5) likely indicating regular foraging within the open-sided farm buildings (B4 and B5), and potential roosting within the other, more sheltered buildings (B3) (detailed in a separate report). Due to its lack of suitability for bats, bats utilising these other buildings are unlikely to utilise B6.	The proposed development will not result in the removal of any habitats which could be used by foraging or commuting bats. Care should be taken so that changes to the lighting associated with the changes of use to B6 and/or the works themselves do not impact bats commuting along the hedgerows or foraging/roosting within the farm buildings to the south.	A low impact lighting strategy will be adopted for the site during and post-development, which will include measures detailed in Table 6.
Nesting Birds (B6)	This building has no suitable features for nesting birds.	None.	None.
Other ecological constraints	None identified.	N/A	N/A

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Elmtree Enterprises Ltd to undertake a Preliminary Roost Assessment (PRA) at Hedges Farm, Worminghall Road, Oakley, HP18 9QY (hereafter referred to as “the site”). The survey was required to inform a planning application for proposed demolition and conversion of an agricultural building into residential units (hereafter referred to as “the proposed development”). A plan showing the proposed development will be provided in Appendix 1 when available.

The aim of the PRA was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how bats could use the site for roosting, foraging or commuting. This has been undertaken with due consideration to the “Bat Surveys for Professional Ecologists —Good Practice Guidelines 4th Edition” publication (Collins, 2023). No previous ecology reports have been produced for this site by Arbtech Consulting Ltd or, to the author’s knowledge, by any other consultancy.

1.2 Site Context

The site is located at National Grid Reference SP 63880 11762 and has an area of approximately 0.9ha comprising a farmyard with farmbuildings (of which B6 is covered in this report) and an adjacent plot of farmland with fenced and hedgerow boundaries (outside of the development area covered by this report). It is surrounded by the village of Oakley which stretches to the north, and beyond that the landscape is dominated by large arable fields with small hedgerow margins. The M40 runs approximately 1km to the west, which will prove a major barrier to connectivity (in particular to any species using Shabbington woods to the south-east). Shabbington woods and Boarstall Wood represent large areas of deciduous woodland within the local environment which are likely to be important to protected species. Former RAF Oakley lies 1km to the south.

1.3 Scope of the Report

This report provides a description of all features suitable for roosting, foraging and commuting 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 possible constraints to the proposed development as a result of 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.

To achieve this, the following steps have been taken:

- A desk study has been carried out.
- A field survey has been undertaken, including an external survey and internal inspection of built structures where possible, to determine the presence or the suitability of any features which bats could use for roosting and to assess the suitability of the site’s bat foraging and commuting habitat.
- An outline of potential impacts on any confirmed or unidentified roosts has been provided, based on the proposed development.
- Recommendations for further surveys and mitigation have been made, along with advice on the requirements for a European Protected Species Licence (EPSL) application if appropriate.

- Opportunities for the enhancement of the site for roosting, foraging and commuting bats have been set out.

2.0 Methodology

2.1 Desk Study

The desk study included a 2km radius review of statutory designated sites with bat qualifying interests and granted EPSL records for bats held on magic.gov.uk database. An assessment of the surrounding landscape structure was also completed using aerial images from Google Earth and OS maps.

Existing bat records relating to the site and a surrounding 2km radius were obtained from Buckinghamshire and Milton Keynes Environmental Records Centre (BMERC). The data search is confidential information that is not suitable for public release and has been analysed and summarised for presentation in this report.

2.2 Field Survey

The survey was undertaken by Dr James Fielding PhD BA (Hons), Consultant Ecologist (Natural England Bat Licence Number 2022-10412-CL17-BAT) on 28/02/2023.

The PRA focussed on a farm building, designated B6. Several other farm buildings (designated B1, B2, B3, B4 and B5) are present but have been addressed in a separate report. This report also provides an overview of the wider site and the surrounding landscape for bat roosting, foraging and commuting habitat.

For any surveyed buildings:

A non-intrusive visual appraisal was undertaken from the ground, using binoculars to inspect the external features of the buildings for features which bats could use for roosting, including access or egress points and for signs of bat use including droppings, scratch marks, insect remains and urine smear marks. An internal inspection of the buildings was also made, including the living areas and any accessible roof spaces, using a 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.

2.3 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

Built structures were categorised according to the likelihood of bats being present and the types of roost that the identified features could support. This is summarised in Table 1 for buildings 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

Classification	Feature of building and its context
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Moderate to high	Buildings or structures with features of particular significance for larger numbers of 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). Buildings with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.
Low	A small number of possible roost sites or features, used sporadically by individual or small numbers of bats. Potential roost features may be suboptimal for reasons such as shallow depth, poor thermal qualities or upwards orientation with exposure to inclement weather or predators. 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.
Negligible	Unsuitable for use by bats.

2.5 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. This survey provides a preliminary view of the likelihood of bats being present. This is based on suitability of the habitats on 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. Bats are highly mobile creatures that switch roosts regularly and therefore the usage of a site by bats can change over a short period of time.

There were no specific limitations to the survey.

3.0 Results and Evaluation

3.1 Desk Study Results

A summary of desk study results is provided below.

3.2 Designated Sites

Details of any statutory designated sites with bat qualifying interests within a 2km radius of the site, including their reasons for notification, are provided in Table 2 below.

Table 2: Statutory designated sites with bat qualifying interests within 2km radius of the site

Designated site name	Distance from site	Reasons for notification from Natural England
Shabbington Woods Complex Site of Special Scientific Interest (SSSI)	1km to the southwest	The special interest of the site lies mainly in the richness of the insect fauna associated with compartment edges and the system of woodland rides. Also included in the site are two unimproved neutral meadows with ridge and furrow topography and several shallow ponds. The vertebrates of the site include all three British species of newt which breed in the scattered ponds, grass snakes, slow worms and fallow and muntjac deer. A large number of bird species are recorded from the wood including woodcock, green and great-spotted woodpeckers, tree pipit, grasshopper warbler, spotted flycatcher and crossbills.
Non-statutory sites	Distance from site	Reasons for notification provided by BMERC
Bernwood Biodiversity Opportunity Area	~300m west	Not provided by BMERC.
Brill and Muswell Hill Biodiversity Opportunity Area	~950m north	Not provided by BMERC.
Pond near Oakley Common Biological Notification Site	~1250 west	Not provided by BMERC.
Boarstal Wood Local Wildlife Site	~1300m north	Not provided by BMERC.
Burrows Wildlife Trust Reserve	~1550m west	Not provided by BMERC.
Ixhill Meadow Biological Notification Site	~1650m south east	Not provided by BMERC.
Catsbrain Farm Local Wildlife Site	~1700m south	Not provided by BMERC.
Worminghall Brook Biological Notification Site	~1900m north east	Not provided by BMERC.

3.3 Historical Records

Bat records have been returned by Buckinghamshire and Milton Keynes Environmental Record Centre (BMERC) within 2km of the site. Records are summarised in Table 3.

Table 3: Historical records of bats within 2km of the site

Common name	Number of records	Dates of records	Roost records
Brown long-eared bat	15	1993 - 2011	1 roost
Common pipistrelle	13	2003 - 2008	2 roosts
Natterer's bat	4	2003 - 2011	1 roost
Serotine	2	2006 - 2006	1 roost
Soprano pipistrelle	2	2003 – 2003	

A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed. Displaced bats from licensed sites <2km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence or will relocate to other known roosts sites in close proximity to the licensed site. EPSL records for bats are summarised in Table 4.

Table 4: Granted EPSLs for bats within 2km of the site

EPSL reference	Bat species affected	Impacts allowed by licence
2017-31016-EPS-MIT	Brown long-eared bat	Destruction of a resting place
2017-27811-EPS-MIT	Common pipistrelle and brown long-eared bat	Destruction of a resting place Destruction of a breeding place
EPSM2009-1217	Common pipistrelle, natterer and brown long-eared bat	

3.4 Field Survey Results

The results of the field survey are illustrated in Appendix 3. The weather conditions recorded at the time of the survey are shown in Table 5.

Table 5: Weather conditions during the survey

Date:	28/02/2023
Temperature	4°C
Humidity	51%
Cloud Cover	0%
Wind	1mph
Rain	None

Building B6

B6 – south-western elevation and eastern elevations pictured opposite.

B6 is a large metal barn with metal sides and a corrugated metal roof with sections of bitumen felt flashing. It has no internal or external access points for bats, and its corrugated metal structure will be highly unsuitable for bats due to the thermal properties of the metal. There are several overhanging points on the elevations, for example gap underneath the lead flashing on the gable ends, however bats will be highly unlikely to utilise these spaces due to the poor thermal qualities of the corrugated metal. As such this building is assessed to have a negligible suitability for crevice or void dwelling bats.



B6 Evidence of bats

There was no evidence of bat activity located externally or internally on B6.

B6 Breeding birds and other incidental observations

There was no evidence of nesting birds located externally or internally on B6, and no features suitable for nesting birds were identified during the survey.

Foraging, Commuting Habitat and Roosting Activity in the wider site.

The site contains arable farmland with semi-improved grasslands and hedgerows. These will offer limited foraging habitat for bats, and the hedgerows likely form a linear commuting feature for bats in the nearby landscape. Although the local habitat is a mix of village buildings and arable farmland, areas of deciduous woodland are present >1km to the north and west, which could provide useful foraging grounds for bats.

The author found bat droppings in multiple locations of the wider site (B3, B4, B5) likely indicating regular foraging within the open-sided farm buildings (B4 and B5), and potential roosting within the other, more sheltered buildings (B3) (detailed in a separate report). Due to its lack of suitability for bats, bats utilising these other buildings are unlikely to utilise B6.



4.0 Conclusions, Impacts and Recommendations

4.1 Informative Guidelines

A summary of the relevant legislation and planning policies is provided in Appendix 4.

Bats

Bats are protected under the Wildlife and Countryside Act and the Conservation of Habitats and Species Regulations 2017 (amended by the Conservation of Habitats and Species Regulations (amendment) (EU Exit) Regulations 2019).

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

Confirmed bat roost

Best practice survey guidelines (Collins, 2023) recommend 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 an EPSL application to 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 one of the surveys should be a dawn re-entry survey.

Low, moderate or high likelihood of a bat roost present

Best practice survey guidelines (Collins, 2023) recommend 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 or 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 of the surveys should be a dawn re-entry survey. If two or one further survey is recommended these surveys must be completed during the optimal survey period (mid-May to August). For low and moderate roost likelihood evaluation the survey effort recommended at this stage is iterative and if bats roosts are confirmed in the building, a further survey will be required to provide sufficient information to inform an EPSL 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 for further advice.

Birds

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 Evaluation

Taking the desk study and field survey results into account, Table 6 presents an evaluation of the value of the site for bats and also details any other ecological constraints identified such as nesting birds in relation to the proposed development which will comprise proposed conversion of an agricultural building into residential units.

Table 6: Evaluation of the site for bats and any other ecological constraints

Feature	Survey conclusions (with justification)	Foreseen impacts	Recommendations <i>Measures required to adhere to guidance, legislation and planning policies.</i>	Biodiversity Enhancements <i>The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021)</i>
Roosting bats (B6)	The building has no suitable features for bats. It has a negligible habitat value.	Bats are very unlikely to be roosting within this building and as such, there are not anticipated to be any impacts on bats in this location as a result of the proposed development.	In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.	The installation of 2 bat boxes at the site will provide additional roosting habitat for bats. The bat boxes will be installed on new buildings on site. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light. The bat boxes will be a specification suitable for crevice or void dwelling bats such as RSPB burford bat boxes or a similar alternative brand.
Foraging and commuting bats	The farmland and hedgerows on site could be used by local bat populations for foraging and commuting. These could also be used by bats dispersing from nearby roosts outside of the site. The author found bat droppings in multiple locations of the wider site (B3, B4, B5) likely indicating regular foraging within the open-sided farm buildings (B4 and B5), and potential roosting within the other, more sheltered buildings	The proposed development will not result in the removal of any habitats which could be used by foraging or commuting bats. Care should be taken so that changes to the lighting associated with the changes of use to B6 and/or the works themselves do not impact bats commuting along the hedgerows or foraging/roosting within the farm buildings to the south.	A low impact lighting strategy will be adopted for the site during and post-development, which will include the following measures: <ul style="list-style-type: none"> • Light spill on to the hedgerows to the north, or the agricultural buildings to the south (B3, B4, B5) should be avoided. • Use narrow spectrum light sources to lower the range of species affected by lighting. • Use light sources that emit minimal ultra-violet light. • Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue shortwave length content they should be of a warm / neutral colour temperature <4,200 kelvin. 	None.

	(B3) (detailed in a separate report). Due to its lack of suitability for bats, bats utilising these other buildings are unlikely to utilise B6.		<ul style="list-style-type: none"> • Not use bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal. • Light spill will be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers and shields. Lights will also be directional to ensure that light is directed to the intended areas only. • External lighting will be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set to the shortest time duration to reduce the amount of time the lights are on. Wall lights and security lights will be 'dimmable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available. 	
Nesting Birds (B6)	This building has no suitable features for nesting birds.	None.	None.	None.
Other ecological constraints	None identified.	N/A	N/A	N/A

5.0 Bibliography

- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.
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Appendix 1: Proposed Development Plan

Not available at the time of writing this report.

Appendix 2: Site Location Plan



Appendix 3: PRA Plan



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 2017* (as amended) through their inclusion on Schedule 2.

Regulation 43: Protection of certain wild animals - offences

(1) A person is guilty of an offence if they:

- (a) Deliberately captures, injures or kills any wild animal of a European protected species,
- (b) Deliberately disturbs wild animals of any such species,
- (c) Deliberately takes or destroys the eggs of such an animal, or
- (d) Damages or destroys a breeding site or resting place of such an animal,

(2) For the purposes of paragraph (1) (b), disturbance of animals includes in particular any disturbance which is likely—

- (a) To impair their ability:
 - (i) To survive, to breed or reproduce, or to rear or nurture their young; or
 - (ii) In the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- (b) To affect significantly the local distribution or abundance of the species to which they belong.

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

NATIONAL PLANNING POLICY (ENGLAND)

National Planning Policy Framework 2021

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 species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) 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; measurable gains in biodiversity in and around developments are incorporated; 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 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.

LOCAL PLANNING POLICY

Vale of Aylesbury Local Plan (VALP) (adopted 2013 - 2033)

NE1 Biodiversity and Geodiversity Protected Sites

Internationally or nationally important Protected Sites (SACs and SSSIs) and species will be protected. Avoidance of likely significant adverse effects should be the first option. Development likely to affect the Chiltern Beechwoods SAC will be subject to assessment under the Habitat Regulations and will not be permitted unless any significant adverse effects can be fully mitigated. Development proposals that would lead to an individual or cumulative adverse impact on an internationally or nationally important Protected Site or species, such as SSSIs or irreplaceable habitats such as ancient woodland or ancient trees, will be refused unless exceptional circumstances can be demonstrated as follows: a. the benefits of the development at this site significantly and demonstrably outweigh both the impacts that it is likely to have on the features of the site that make it internationally or nationally important and any broader impacts on the national network – for example of Sites of Special Scientific Interest, and b. the loss can be mitigated and compensation can be provided to achieve a net gain in biodiversity/geodiversity

Sufficient information must be provided for the council to assess the significance of the impact against the importance of the Protected Site and its component habitats and the species which depend upon it. This will include the area around the Protected Site and the ecosystem services it provides and evidence that the development has followed the mitigation hierarchy set out in (d) below.

Protection and enhancement of Biodiversity and Geodiversity

Protection and enhancement of biodiversity and geodiversity will be achieved by the following:

- c. A net gain in biodiversity on minor and major developments will be sought by protecting, managing, enhancing and extending existing biodiversity resources, and by creating new biodiversity resources. These gains must be measurable using best practice in biodiversity and green infrastructure accounting and in accordance with any methodology (including a Biodiversity Impact Assessment) to be set out in the Buckinghamshire Biodiversity Accounting SPD.
- d. If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or as a last

resort, compensated for, then development will not be permitted. If a net loss in biodiversity is calculated, using a suitable Biodiversity Impact Assessment (see c) then avoidance, mitigation and compensation, on site first, then offsite must be sought so the development results in a net gain (percentage of net gain to meet any nationally-set minimum standard and Vale of Aylesbury Local Plan 254 or as detailed in an SPD) in order for development to be permitted. Mitigation, compensation and enhancement measures must be secured and should be maintained in perpetuity. These assessments must be undertaken in accordance with nationally-accepted standards and guidance (BS 8683 Biodiversity net gain in project design and construction; and CIRIA Biodiversity Net Gain Good practice principles for development).

e. Development which would result in damage to or loss of a site of biodiversity or geological value of regional or local importance (such as Local Wildlife Sites or Local Geological Sites) including habitats of principal importance (known as Priority Habitats) or the habitats of species of principal importance (Priority Species) or their habitats will not be permitted except in exceptional circumstances where the need for, and benefits of the development significantly and demonstrably outweigh the harm it would cause to the site, and the loss can be mitigated and compensation provided to achieve a net gain.

f. The Council will, where appropriate, expect ecological surveys for planning applications. These must be undertaken by a suitably qualified person and consistent with nationally accepted standards and guidance (BS 42020: Biodiversity – Code of Practice for planning and development; and CIEEM Ecological Report Writing guidance) as replaced

g. Where development proposals affect a Priority Habitat (As defined in the Buckinghamshire Biodiversity Action Plan or UK Biodiversity Action Plan and as listed in accordance with s41 of the NERC Act 2006) then mitigation should not be off-site. Where no Priority Habitat is involved then mitigation is expected to follow the mitigation hierarchy, where options for avoidance, mitigation and compensation on-site, and then offsite compensation, should be followed in that order as outlined in d. When there is a reasonable likelihood of the presence of protected or priority species or their habitats, development will not be permitted until it has been demonstrated that the proposed development will not result in adverse impacts on these species or their habitats. The only exception will be where the advantages of development to the protected site and the local community clearly outweigh the adverse impacts. In such a case, the council will consider the wider implications of any adverse impact to a protected site, such as its role in providing a vital wildlife corridor, mitigating flood risk or ensuring good water quality in a catchment.

h. Development proposals will be expected to promote site permeability for wildlife and avoid the fragmentation of wildlife corridors, incorporating features to encourage biodiversity, and retain and where possible enhance existing features of nature conservation value on site. Existing ecological networks should be identified and maintained to avoid habitat fragmentation, and ecological corridors including water courses should form an essential component of green infrastructure provision in association with new development to ensure habitat connectivity

i. Planning conditions/obligations will be used to ensure net gains in biodiversity by helping to deliver the Buckinghamshire and Milton Keynes Biodiversity Action Plan targets in the biodiversity opportunity areas and other areas of local biodiversity priority. Where development is proposed within, or adjacent to, a biodiversity opportunity area, biodiversity surveys and a report will be required to identify constraints and opportunities for biodiversity enhancement. Development which would prevent the aims of a Biodiversity Opportunity Area from being achieved will not be permitted. Where there is potential for development, the design and layout of the development should secure biodiversity enhancement and the council will use planning conditions and obligations as needed to help achieve the aims of the biodiversity opportunity area. A monitoring and management plan will be required for Vale of Aylesbury Local Plan 255 biodiversity features on site to ensure their long-term suitable management (secured through planning condition or Section 106 agreement).

j. Development proposals adversely affecting a Local Nature Reserve will be considered on a case-by-case basis, according to the amount of information available about the site and its significance, relative to the type, scale and benefits of the development being proposed and any mitigation. Any mitigation strategy will need to include co-operation with the nature reserve managers.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by 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).

There are 17 species of bat breeding in England and Natural England issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

Licences are issued for specific purposes stated in the Regulations, if the following three tests are met:

- The purpose of the work meets one of those listed in the Habitats Regulations (see below);
- That there is no satisfactory alternative;
- That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range

The Habitats Regulations permits licences to be issued for a specific set of purposes including:

1. include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
2. scientific and educational purposes;
3. ringing or marking; and,
4. conserving wild animals.

Development works fall under the first purpose and Natural England issues bat mitigation licences for developments.

EUROPEAN PROTECTED SPECIES POLICIES

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

- Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;
- Policy 2; provides greater flexibility in the location of compensatory habitat;
- Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
- Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.

The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to 'local populations' of EPS and not individuals/site populations.