Preliminary Ecological Appraisal: Hill Farm, Lillingstone Lovell

Client	Hexon Planning Consultancy Ltd
Reference	H1173.002
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NATURAL SOLUTIONS

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Non-technical Summary

Background

In October 2023, Crossman Associates was commissioned to undertake an ecological appraisal and a bat scoping survey of Hill Farm, Lillingstone Lovell, Buckingham MK18 5BL. Development proposals include partial clearance of the site and replacement dwelling.

Methodology

The survey follows Phase 1 habitat survey methodology that was extended to record the provisional signs of notable/protected species. The survey was undertaken by Miguel Canovas, an experienced ecologist and bat worker.

Results

The site is located in a rural environment. The land is dominated by scrub and ruderal and a small area of improved grassland. The larger trees are likely to provide foraging and nesting opportunities for common garden and farm birds. The grassland has suitability to support a reptile population. The farmhouse and a stone barn have moderate suitability to support bat roost. An active badger sett occupies the site.

Recommendations

It is recommended that the following are undertaken as part of the proposals.

Further surveys for bats, reptiles and amphibians

Precautionary approach to be taken regarding hedgehogs, badgers and nesting birds.

Incorporate integral bat and bird roosting / nest boxes within the new dwelling.

Exterior lighting planned sensitive to nocturnal wildlife.

Landscape planting to include plants that have value for local wildlife.

Contents

1. Background

1.1. In October 2023, Crossman Associates was commissioned to undertake an ecological appraisal and a bat scoping survey of Hill Farm, Lillingstone Lovell, Buckingham MK18 5BL (site Ordnance Survey grid reference SP 71747 39611).

1.2. Figure 1 in Appendix I provides a site location map.

1.3. The objectives of the survey were to:

Map the existing habitats on site.

Provide an assessment of the likely presence/absence of notable or protected species.

Identify any legislative or planning policy constraints relevant to the site.

Determine the need for further surveys, compensation or mitigation.

Site Description

1.4. The site is a dilapidated and overgrown farmstead. The site is a dilapidated farmhouse and numerous ruinous buildings and surrounding land that have used for the storage of large areas of scrap and rubble over a long period of time. It is considered that the site has not been managed for an extended period so has become covered with trees and continuous areas of scrub and ruderal vegetation. The site is accessed by a network of gravel and earth tracks. Also, present is an area of improved grassland.

1.5. The site is adjacent to arable fields and pasture. An area of ancient woodland lies approximately 500 m to the north-east of the site.

1.6. The site is located in a rural environment, south of Lillingstone Lovell, Buckinghamshire. Surrounding areas include farmland, small settlements, and woodland.

Proposals

1.7. Development proposals include partial clearance and replacement of a new dwelling.

2. Methodology

Desktop Study

Data search

2.1. The MAGIC website was accessed to gain information on any statutory site designations within 2 km of the site.

National Planning Policy

2.2. National Planning Policy has been reviewed for policies that relate to nature conservation relevant to the site.

Field Survey

Ecological appraisal

2.3. The ecological appraisal follows Phase 1 habitat survey methodology, which is a survey method and habitat classification system that was developed by the Nature Conservation Council, now Joint Nature Conservation Committee (JNCC, 2003) to map habitats and land use categories to a 'consistent level and accuracy'. The habitats are mapped using standard colour codes allowing rapid visual assessment of the extent and distribution of different habitat types. Where appropriate, Target Notes highlight potential features of interest.

2.4. An extended Phase 1 habitat survey also records provisional signs of protected or notable species and assesses the suitability of the habitats on-site and within the accessible surroundings of the site to support such species.

Site Evaluation

2.5. The site evaluation for the habitat areas and species present (where appropriate) is based on published criteria given in the CIEEM guidelines for ecological impact assessment. Values are assigned between International Value and Negligible Value to habitats that are likely to be directly or indirectly affected by the proposed development.

2.6. The value categories used in the assessment are as follows:

International – Europe

National – England

Regional – South-east

County – Buckinghamshire

Local – Lillingstone Lovell

Site – Within the immediate zone of influence

2.7. The conservation and ecological status of the site is assessed using the Ratcliffe criteria (1977).

3. Results

Desktop Study

Data Search

3.1. The Magic website informed that there are no statutory sites within 2 km of the site designated for nature.

3.2. The MAGIC website informed that there are no statutory sites within 4 km of the site designated for bats.

3.3. Leckhampstead Wood (ancient woodland) lies approximately 500 m to the north-east of the site.

Planning Policy

3.4. National policy guidance is provided by National Planning Policy Framework (NPPF), which sets out the Government' planning policies for England and how they should be applied to planning applications;

<u>Conserving and enhancing the natural environment</u>

Planning decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services –

including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

Habitats and Biodiversity

When determining planning applications, local planning authorities should apply the following principles:

a) 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 planning permission should be refused;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not

normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons, and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

Field Survey

3.5. Survey work was undertaken by Miguel Canovas an experienced ecologist and bat worker and took place on 11th October 2023.

Habitat survey

3.6. The habitats on site are described in the paragraphs below and are shown in Figure 2, Appendix I. Photographs can be found in Appendix II.

Scrub and ruderals

Improved grassland

Trees

Bare ground

Buildings

Scrub and ruderal

3.7. The site has not been managed or maintained for an extended period of time (over 10 years) and has become overgrown with scrub and ruderals.

3.8. Scrub tends to be bramble *Rubus fruticosus* and tree saplings that surround and are growing out if buildings and over areas of stored scrap and ruderals. Some areas of scrub are approaching secondary woodland. Due to the density of the scrub, the ground tends to be covered by ivy and there are stands of common nettle in open areas.

Trees

3.9. The trees are found scattered around the site and the young trees are self-seeding. The trees species include ash *Fraxinus excelsior,* willows *Salix ssp.*, elm *Ulus procera,* walnut *Juglans regia,* elder *Sambucus nigra* and horse chestnut *Aesculus hippocastanum.*

Improved grassland

3.10. The grassland occupies the eastern side of the site and is recently unmanaged and is dominated by perennial grasses species which includes cock's-foot *Dactylis glomerata,* with some false oatgrass *Arrhenatherum elatius,* common nettle *Urtica dioca* and docks.

Bare ground

3.11. Areas of bare ground form an entrance from Chapel Lane, into the farm extending around the farm buildings and farmhouse. These areas are composed of soil, gravel with shirt ephemeral vegetation.

Species observation

Flora

3.12. The site provides a mix of open habitats with poor semi-improved grassland. No rare, protected, notable or invasive species were found on site.

Non – native invasive plants

3.13. No non-native invasive plant species were recorded on site during the visit; however, due to ongoing partial management of the site, it is possible that invasive plants could be missed. It is therefore recommended that the site is monitored for the presence of such species.

Invertebrates

3.14. The site is likely to support a moderate assemblage of common and widespread species of invertebrates associated with a farmland habitat. Much of the vegetation on site has been left to follow a natural cycle of flowering and setting seed and so will provide a supply of nectar, fruits and seeds.

Amphibians

3.15. There are no ponds on site; however, and there is a seasonal pond adjacent to the north-east corner of the site. The pond was dry during the survey and may hold water in the winter/spring months. This feature also shows up on Ordnance Survey mapping. Such ponds may be suitable as a breeding location for common amphibians such as the common frog *Rana temporaria* and could potentially provide breeding habitat for great crested newt *Triturus cristatus.*

Reptiles

3.16. The site offers potential habitat for common species of reptile, particularly slow worm *Anguis fragilis*. Suitable habitat is generally restricted to the improved grassland and the ruderals near the eastern boundary of the site.

3.17. These habitats provide a variety of suitable features including foraging opportunities, ground cover, basking opportunities, and hibernation opportunities, which are fundamental requirements for slow worms.

Birds

3.18. Mature shrubs and trees on site provide opportunities for nesting birds and the site is likely to offer both foraging and nesting opportunities for a range of common garden and farmland species.

3.19. The seed and berry-bearing plants on-site provide a good foraging resource for birds.

Dormice

3.20. The site is considered unlikely to support dormice; although there is dense vegetation on site, the site is isolated by surrounding areas of arable farmland and managed hedgerows.

Badgers

Assessment

3.21. Assessment of badger *Meles meles* activity such as the presence of setts and foraging activity is based on visual evidence at the time of the survey, and apparent suitability of habitats present within the site boundary. The assessment also considers the surrounding land and linkages to other badger setts (if present).

3.22. The status of the sett entrances was assessed according to Harris *et al*. (1989) and Neal and Cheeseman (1996).

3.23. An active main badger *Meles meles* sett occupies an area on the southern boundary of the site (Target Note 1). There are also disused sett entrances in this area.

Bats

3.24. The site is rural near to farmland and woodlands which is likely to function as commuting and foraging resource for different species of bats.

Trees

3.25. The trees present on site may provide nest and foraging opportunities for birds.

Bat scoping survey

3.26. The external and internal conditions of the buildings are described in the table below and photographic reference can be found within Appendix II.

3.27. A table within Appendix III set out the criteria for the way a building is assessed for its potential to support roosting bats.

Building	Feature	Feature Description	Bat suitability
Hill Farm – Farmhouse – Target Note 2	Overview	The farmhouse is in ruins.	Moderate suitability ☒
	Exterior	The brick walls have cracks and gaps where bats could access the cavity of the walls. Windows and doors are mostly broken and/or rotten. The hanging tiles areas around the building have gaps and missing tiles.	

Building	Feature	Feature Description	Bat suitability
	Interior	There is vegetation growing inside of the building and most of the interior walls have collapsed. The building is unsafe and not fully accessible.	
	Roof	The roof is clad with slate tiles, and more than half of the roof has collapsed.	
Stone Barn – Target Note 4		The stone barn located north of the farmhouse have cracks on the walls and wooden boards which provide roosting opportunities for bats.	Moderate Suitability ☒
Outbuildings and sheds		The outbuildings/sheds and structures are open simple and makeshift constructions (no lining or roof void) and lacking any significant bat roost features.	Negligible Suitability ☒

European hedgehog

3.28. The site provides potential habitat for hedgehogs *Erinaceous europaeus*, which may use in conjunction with adjacent farmland and woodland, as a foraging and hibernating site.

Evaluation

3.29. The site supports ruderal areas and a small area of improved grassland. The ruderal and grassland provide some suitable habitat for legally protected species including common reptiles and badger.

3.30. The farmhouse and the stone barn (Target note 2 and 4) have moderate suitability to support bat roosts.

3.31. The habitats on site are widespread and common in the locality.

3.32. The site is of ecological value at a site level.

4. Recommendations

4.1. The recommendations in the paragraphs below are provided to help ensure that wildlife and important ecological features are protected during the course of works. Recommendations also set out mitigation measures to minimise harm where this cannot be avoided and provide compensation measures to allow the proposals to meet current legislative and planning policy objectives.

4.2. The Natural Environment and Rural Communities (NERC) Act (2006) states that a public authority must 'in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity; Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat'.

4.3. Under the Government's National Planning Policy Framework (NPPF) opportunities to incorporate biodiversity in and around developments should be encouraged.

Species Recommendations

Amphibians

4.4. The site is lies adjacent to a pond within may support amphibians, including great crested newt. Great crested newts use surrounding habitat, so it is possible that the site provides terrestrial habitat for this species. It is recommended that the pond is sampled for great crested newt eDNA to confirm presence/absence. The site may need to be registered under the District Level Licencing Scheme to permit development.

Reptiles

4.5. All common species of reptile are protected under the Wildlife and Countryside Act (1981) as Amended, which makes an offence to intentionally damage or destroy a reptile.

4.6. Due to the potential presence of commoner species of reptiles, particularly slow worm, it is recommended that a presence/absence survey is carried out and a suitable mitigation strategy implemented prior to development works commencing.

Bats

4.7. In the UK all species of bats are protected under the Wildlife and Countryside Act (1981) as amended and the Conservation of Habitats and Species Regulations, 2011 (as amended). Under this legislation it is a strict liability offence to injure or destroy a bat or to disturb damage or destroy the resting place of a bat. Under this legislation the UK is obliged to fully consider bats within the planning process and the level of bat activity on-site must be fully assessed prior to the assessment of the planning application.

Further surveys

4.8. The farmhouse and the stone barn have been identified as having moderate suitability to support bat roost.

4.9. At least two activity surveys are recommended to be undertaken for standard European Protected Species Licences (EPSL) and Low Impact Licences (subject to the two surveys returning similar findings). Any discrepancies may require a third survey to fully characterise the roost. Surveys are undertaken during the main bat activity period (May – September) with at least one of these surveys carried out between May – August. Surveys should be spread out by at least two weeks.

4.10. Surveys will involve appropriately experienced personnel observing all aspects of the building to watch where bats emerge (evening emergence surveys) and where bats re-enter (dawn re-entry surveys).

4.11. Evening emergence surveys commence approximately 20 minutes prior to sunset and continue for approximately 1.5 hours. Dawn re-entry surveys commence 1.5 hours prior to sunrise and will continue for 15 minutes after sunrise.

4.12. The results of the surveys will inform an appropriate mitigation / compensation strategy that will ensure that bats are safe guarded during works and that bats are maintained at a favourable conservation status locally.

4.13. Bats and other wildlife can be negatively affected by light spill and inappropriate and un-mitigated lighting associated with the new development has the potential to cause isolation and severance of habitats, especially if boundary features and important adjacent features are subject to intense lighting. It is therefore recommended that the design of the development includes a low-level lighting scheme, with an emphasis on ensuring that the new property does not have security lighting or bright lighting that may illuminate the hedgerows. The specification of lighting at a design stage is important and installation during development of low-level lighting, will help to reduce retrofitting of bright lighting, post development.

4.14. An information sheet on bats and exterior lighting can be found within Appendix III.

[redacted]

provided below:

4.20. All nesting birds are protected under the Wildlife and Countryside Act (1981) (as amended), which makes it an offence to damage or destroy a nest when being built or in use. This legislation has implications for the timing of vegetation clearance and renovation works.

4.21. Any clearance works should take place outside of the nesting bird season, which runs from March to September; any works to be carried out within this period will be overseen by an ecologist or an ecological clerk of works (ECoW). Prior to the commencement of works, a thorough check will be made for nesting birds or dependant young. If birds are found to be nesting and or rearing young, then works in the vicinity will be deferred until young have fledged and left the nest.

Hedgehog

4.22. In the UK hedgehogs are listed on schedule 6 of the Wildlife and Countryside Act (1981) as Amended which makes it illegal to kill or capture wild hedgehogs. Hedgehogs are also listed as a species of 'principal importance' under the Natural Environmental and Rural Communities Act 2006, which is meant to confer a 'duty of responsibility' to public bodies.

4.23. Excavated holes and trenches on building sites have the potential to trap wildlife including hedgehogs leading to the potential suffering and death of the animal (s) particularly if they become filled with water.

4.24. If during the development excavated holes / trenches are likely to be left open, then timber builders' planks should be fitted as ramps to enable any wildlife including hedgehogs a means of escape.

Biodiversity enhancements

4.25. During the construction phase, there is an opportunity to incorporate inexpensive ecological enhancements that aim to increase the biodiversity of the site.

Birds

4.26. New nesting opportunities will be provided for the local bird population with a particular emphasis on house sparrows (which have suffered significant decline) and it is recommended that a sparrow nest box is installed within the development.

4.27. Sparrow nest boxes are ideally fitted below eaves. Suitable models include the Vivara Woodstone Sparrow Nest Box, which is suitable for integral and surface mounting. This model is strong, durable, long lasting and available in brown or stone colour.

4.28. Bird boxes are available from www.wildlifeservices.co.uk, telephone number 0333 9000 92. Further models are supplied by Habibat www.habibat.co.uk , telephone number 01642 724626.

Bats

4.29. There is an opportunity during the development works to enhance the ecological value of the site for bats. It is recommended that a single Habibat bat box (type 001) is built into masonry of the eastern gable. This model is designed for a variety of bat species and has good thermal properties making it suitable as both a maternity roost and hibernation roost. A variety of facings can be fitted to suit any existing brick, wood, stonework or rendered finish, making the box unobtrusive and aesthetically pleasing.

4.30. An information sheet detailing this type of bat roosting box can be found in Appendix III.

New hedgerows/ trees

4.31. Where possible short lengths of hedgerow will used rather than solid fence panels to divide individual plots / communal areas. Hedgerows will be formed by a double row of planted whips, protected by tree guards and weed fabric to maximise viability and encourage healthy growth. If a solid fence is necessary, then this will be combined with a hedgerow where possible.

4.32. Areas of soft landscaping planned for the site should include native trees and shrubs. Short lengths of native hedgerow can be incorporated within the development acting as screening / buffering and dividing boundaries. Suitable species include holly *ilex auditorium*, dogwood *Cornus sp,* butterfly bush *Buddleia davidii,* honeysuckle *Lonicera periclymenum* and privet *Ligustrum ovalifolium.* Further species are listed within Appendix III.

5. Limitations

5.1. This report records wildlife found during the survey and anecdotal evidence of sightings. It does not record any plants or animals that may appear at other times of the year and were therefore not evident at the time of visit.

5.2. This report represents a preliminary assessment only. Recommendations and conclusions are subject to change should further findings significantly differ from those collected from the survey efforts to date.

5.3. The advice contained in this report relate primarily to factual survey results and general guidance only. On all legal matters you are advised to take legal advice.

6. References

Bat Conservation Trust (BCT) *Bats and Lighting in the UK* BCT

HMSO (1981) *Wildlife and Countryside Act 1981 (and subsequent amendments).* HMSO

HMSO (1995) *Biodiversity.* The UK Steering Group Report

Joint Nature Conservation Committee (JNCC) *Common Standards Monitoring Guidance for Reptiles and Amphibians* (2004) JNCC

Mitchell-Jones, A.J (2004) *Bat Mitigation Guidelines* English Nature

Mitchell-Jones, A.J, & McLeish A.P. (2012) *The Bat Worker's Manual* (4th Edition)

Multi-Agency Geographical Information for the Countryside (MAGIC) Website at www.magic.gov.uk

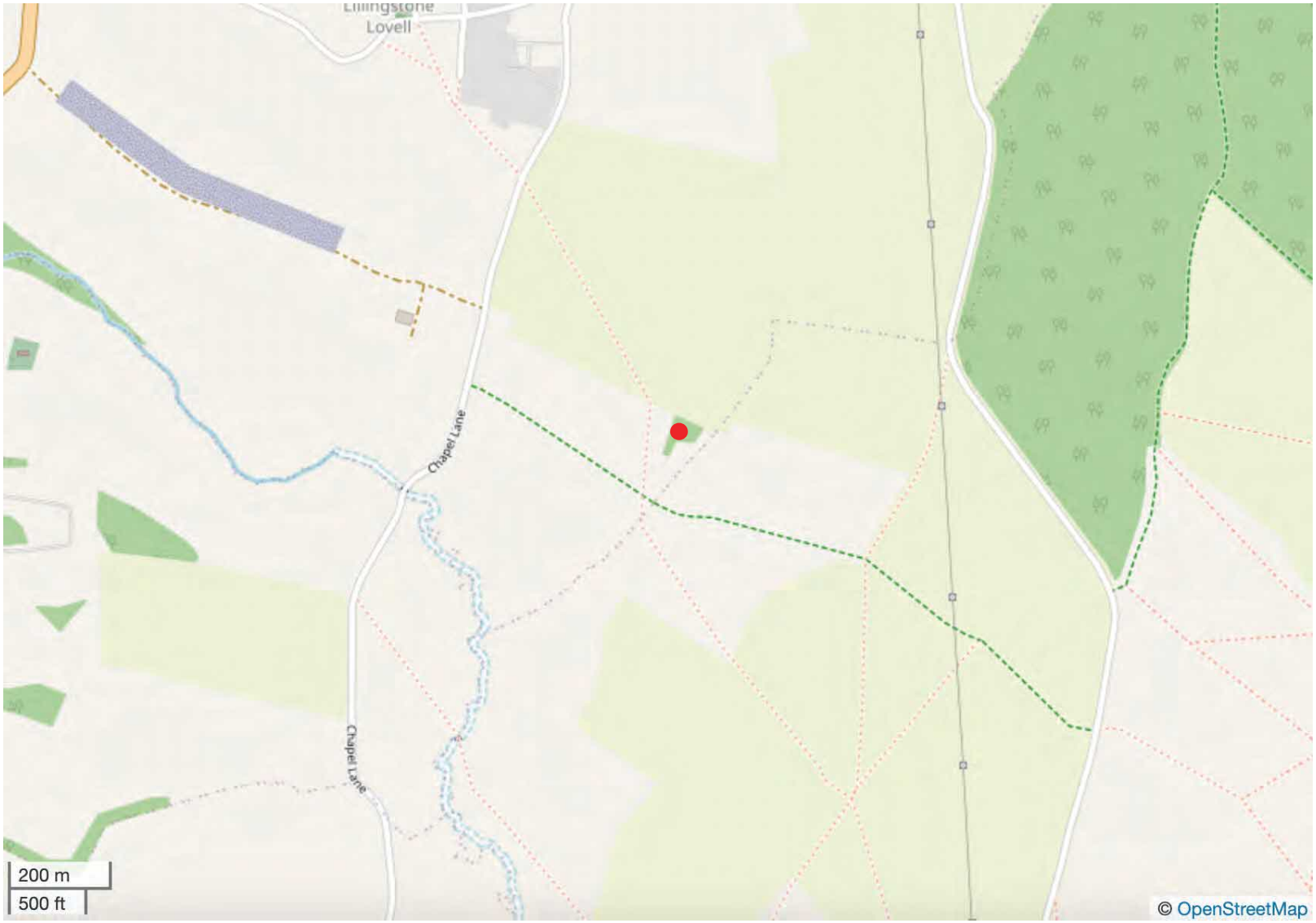
Stace, C. (1997) New *Flora of the British Isles 2nd Edition.* Cambridge University Press

TSO (2018) *National Planning Policy Framework.* TSO

TSO (2021) *National Planning Policy Framework.* TSO

TSO (2006) *Natural Environment and Rural Communities Act* TSO

Appendix I –Site Figures



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● Site location

Client	Hexon Planning Ltd
Title	Location plan
Site	Hill Farm, Lillingstone Lovell
Figure	1
Date	19/10/2023
Scale	xxx

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- Site boundary
- Improved grassland
- Trees
- Ruderal
- Bare ground
- Buildings
- Target Note

Client	Hexon Planning Ltd
Title	Habitat Map
Site	Hill Farm, Lillingstone Lovell
Figure	2
Date	18/10/2023
Scale	xxx

Appendix II – Site Photographs

Photographs 1- 3

Photograph 1:

Target Note 2 - Farmhouse - southeastern elevation

Photograph 2:

Farmhouse - northern elevation

Photograph 3:

Farmhouse - northwestern elevation

Photographs 4 - 6

Photograph 4:

Farmhouse - southwestern elevation

Photograph 5:

Target Note 4 - Stone barn

Photograph 6:

Stone barn

Photographs 7 - 9

Photograph 7:

Farm building - eastern boundary

Photograph 8:

Target Note 3 - improved grassland

Photograph 9:

Farm building - northern boundary

Photographs 10 - 12

Photograph 10:

Target Note 1 - active badger sett - southern boundary

Photograph 11:

Former badger setts - southern boundary

Photograph 12:

Southern boundary

Appendix III –Information Sheets

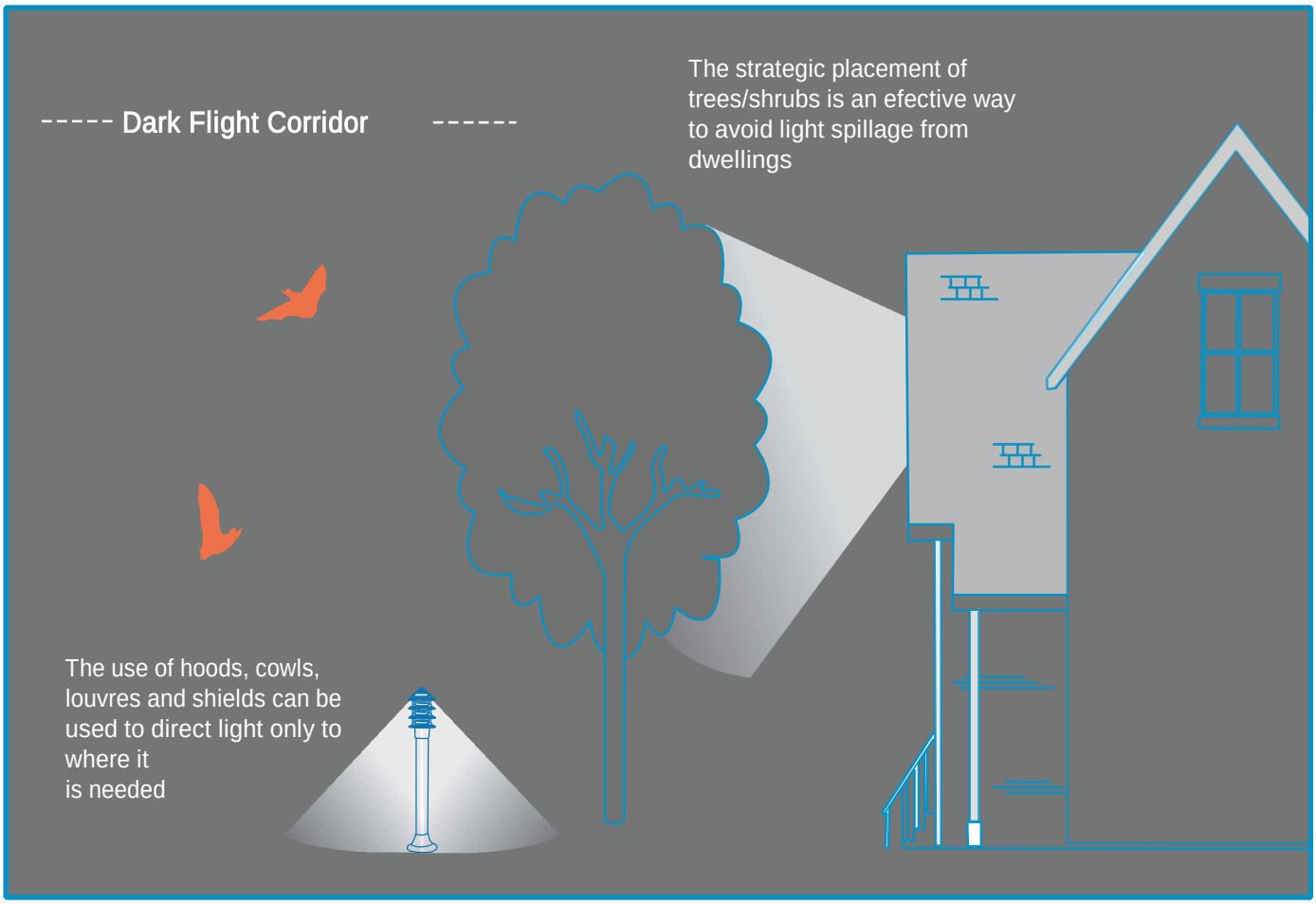
Bat Habitat Suitably Criteria

Bat Roosting Suitability	Criteria	Survey requirement to prove likely absence
Negligible	Negligible habitat features on site likely to be used by roosting bats.	No further survey work required
Low	A building, structure or tree with one or more potential roosting sites that could be used by individual bats opportunistically; however, these possible roost sites do not provide enough space, shelter, protection and/or suitable surrounding habitat to be used by large numbers of bats and are unlikely to be suitable for maternity or hibernation roosts.	One activity survey
Medium	A building, structure or tree with one or more potential roost sites that could be used by bats due to the size, shelter, protection, conditions and surrounding habit, but is unlikely to support a roost of high conservation status.	Two activity surveys
High	A building, structure or 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.	Three activity surveys

Survey requirements are taken from Bat Surveys for Professional Ecologists: Good Practice Guidelines (2016), which is the recognised industry standard guidance used by local planning authorities and other statutory consultees.

Sensitive Lighting for Bats

MITIGATION GUIDELINE № 001



Lamp Type

The impact of light on bats can be minimised by the use of low/high pressure sodium lamps.

Lighting Column

The height of lighting columns should be kept as low as possible to reduce the impact of light spill. For example, when designing lighting for pedestrian walkways, use short bollard lights that produce a low level light (as low as 3 lux) directed downwards.

Light Mapping

Mapping the light spill of a lighting scheme using computer software can prove essential in design-ing schemes that are ft for purpose, that minimise energy costs and create dark fight corridors and foraging areas for bats.

Light Levels

Proposed light levels within landscape plans should be as low as possible. If lighting is not needed, don't light.

Timing of Lighting

The times at when lighting is left on should be limited where possible. The use of movement sensors and timers for lights is useful for saving energy and reducing the amount of time a light is left on.

Impacts of Light on Bats

As nocturnal mammals, light causes disturbance to bats and many species will actively avoid lit areas. The illumination of bat roosts can delay bats emerging and thus shorten their foraging time and may eventually lead to bats abandoning their roost. The illumination of foraging or commuting areas may also lead to an increase in the rate of predation of bats by predators.

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Information sheet Artificial bird nesting boxes for Buildings: Swifts, house martins and house sparrows

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Habibat house sparrow nest box

Vivara woodstone sparrow nest box; suitable for both integral ftment or surface mounting

Ibstock Swift boxes are also suitable for house sparrows. Can be customised to suit any exterior finish.Site boxes under eaves, away from windows and direct sunlight.

Ibstock Box

Sparrow boxes should be grouped together and be at least 2 m of the ground. The boxes can be also be sited on gable walls. At least 3 per averaged size house.

Swifts boxes should be at least 5 m above the ground with an clear un-obstructed flight path.

Schwegler model 9b

Schwegler house martin box model 9 b double is a suitable box for house martins and can be used to encourage the uptakeof a building by this species. The boxes can be attached to the exterior walls in a sheltered position; ideally beneath the eaves. At least two sets should be placed on an averaged size house.

Wildlife Friendly Planting

ECOLOGICAL LANDSCAPING № 001

Plants of known beneft to UK bat species:

Border Flowers

Corncockle *Agrostemma githago*
Cornf ower *Centaurea cyanus*
Corn poppy *Papaver rhoeas*
English bluebell *Hyacinthoides non-scripta*
Knapweed *Centurea niger*
Night-scented catchfy *Silene noctifora* *
Ox-eye daisy *Leucanthemum vulgare*
Primrose *Prima rosa*
Red campion *Selene diotica*
Scabious species *Scabiosa Sp.*
St Johns wort *Hyppericum perforatum*
Sweet rocket *Hesperis matronalis* *
Yarrow *Achillea millefolium*

Herbs

Angelica *Angelica archangelica*
Bergamot *Citrus bergamia*
Borage *Borago of cinalis* *
Chives *Allium schoenoprasum*
Engligh marigolds *Calendula of cinalis* *
Fennel *Foeniculum vulgare*
Feverfew *Tanacetum parthenium*
Hyssop *Hyssopus of cinalis*
Lavenders *Lavandula Sp.*
Lemon balm *Melissa of cinalis* *
Marjoram *Origanum majoram* *
Rosemary *Rosmarinus of cinalis*
Sweet Cicely *Myrris odorata*
Thyme *Thymus vulgaris*

Trees

Elder *Sambucus niger*
English oak *Quercus niger*
Hawthorn *Crataegus Sp.*
Hazel *Corylus avellana*
Pussy willow *Salix caprea*
Rowan *Sorbus Sp.*
Silver birch *Betula pendula*
Common alder *Alnus glutinosa*

Shrubs and Climbers

Bramble *Rubus fruticosa* *
Buddleia *Buddleia buddleia*
Dog rose *Rosa canina* *
Gorse *Ulex europaeus*
Guelder rose *Viburnum opulus*
Honeysuckle *Lonicera Sp.* *
Ivy *Hedera helix*
Jasmine *Jasminum* *

Aquatic plants

Bog bean *Menyanthus trifoliata*
Bugle *Ajuga Reptans*
Creeping Jenny *Lysimachia nummularia*
Flag iris *Iris pseudacorus*
Hemp agrimony *Eupatorium cannabinum*
Lady's smock *Cardamine pratensis*
Marsh mallow *Althaea of cinalis*
Marsh marigold *Caltha palustris*
Purple loosestrife *Lythrum salicaria*
Water mint *Mentha aquatica* *

Landscaping Planting for Bats
As very active mammals bats need to eat up to 3000 midges, mosquitoes and other insects a night.
Incorporating night-scented plants within your site will especially help encourage bat prey insect species.
Using structural plants such as trees and large shrubs can also improve a soft landscaped area by introducing dark and sheltered areas.

* Night-scented

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