

ECOLOGICAL ASSESSMENT

**PLOT AT 22 HILLSIDE, HATHERDEN,
ANDOVER, SP11 0HP**

NOVEMBER 2023

ECOLOGICAL ASSESSMENT
22 HILLSIDE, HATHERDEN, ANDOVER, SP11 0HP

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**ECOLOGICAL APPRAISAL
22 HILLSIDE, HATHERDEN, ANDOVER, SP11 0HP**

1.0 INTRODUCTION

1.1 Background

1.1.1 Aluco Ecology Ltd was commissioned to carry out an Ecological Assessment of land at 22 Hillside, Hatherden, Andover, SP11 0HP, By Luke Rose Architects, and on behalf of the property Owner. The assessment undertaken reflects the scale of the proposed works within the site overall. This November 2023 Update is in relation to scheme changes; which in summery are a smaller 2 bedroom house, Alterations to parking area, update to landscaping.

1.1.2 An ‘Ecological Assessment’ is the investigation of the likely ecological and nature conservation issues associated with the site and its potential development. The aim of an assessment is to:

highlight any features of particular ecological value;
identify potential impacts to ecology as a result of the proposed works;
identify any ecological issues that may have legal or planning implications such as the presence of protected species;
recommend any further work (such as targeted protected species surveys) required in order to fully assess the value of the site, and therefore the potential ecological impacts of the proposals that may arise; and in this case further bat survey was recommended and completed.

1.1.3 The Government sets out its objectives for conserving and enhancing biodiversity in the National Planning Policy Framework (revised NPPF). The Government’s objectives for planning include an environmental objective ‘to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.’

1.1.4 The Framework goes on to state that at the heart of the planning system is a presumption in favour of sustainable development. Planning Practice Guidance on the Natural Environment provides information on taking biodiversity into account in planning (see Section 15 of the revised NPPF).

1.2 Outline of the Scheme and Site Location

- 1.2.1 The site, situated at 22 Hillside, Hatherden, Andover, SP11 0HP, Grid reference SU342506 / SU3421850624 and shown at **Figure 1**, is situated on the northern end of the Village of Hatherden. It consists of an area of land (c0.1ha) previously associated with the dwelling house No22.
- 1.2.2 It is proposed to build a new property on the central areas of the site. There are no structures / buildings to demolish. **Figure 2-3** below illustrates the scheme with full details within the design and access statement.



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Figure 1a: Location of the Site

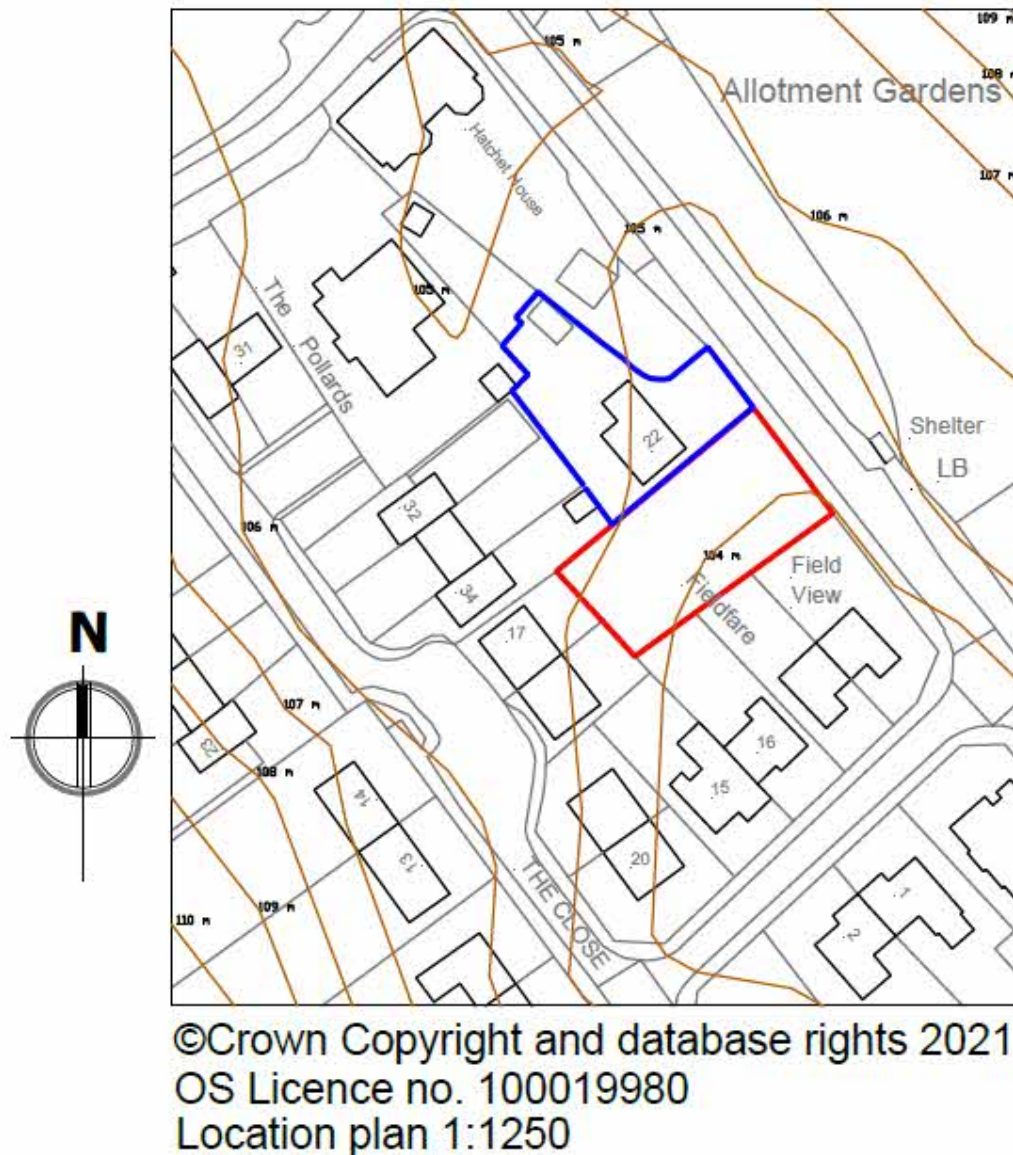


Figure 1b: Location of the Site

1.3 Relevant Legislation and Policy

1.3.1 The outcomes of this Ecological Assessment will be tested against relevant legislation and policy; namely the Conservation of Habitats & Species Regulations 2017 in relation to the protection of European sites (Special Protection Areas SPA, and Special Areas of Conservation SAC) and European protected species (eg bats, dormouse, great crested newts) (see **Technical Appendix 1**) and the Wildlife & Countryside Act 1981 (as amended) and Countryside & Rights of Way Act (CRoW) 2000 for protected species and the designation and protection of SSSIs (see **Technical Appendix 1**). The Protection of Badgers Act 1992 gives protection to Badgers *Meles meles*.

- 1.3.2 In addition to the planning framework and the legislation outlined above, the local planning policies are the principal policies against which the outcomes of this ecological appraisal will be tested; (**Technical Appendix 2**) the Test Valley Borough LDF, Revised Local Plan DPD 2011 – 2029, Regulation 19.
- 1.3.3 Under the Governments duty to conserve Biodiversity, through Section 41 of the Natural Environment and Rural Communities Act 2006 (NERC, 2006) a number of Biodiversity Action Plans (BAPs) have been prepared for habitats and species of conservation concern, including national BAPs and a Biodiversity Action Plan for Hampshire is considered in the general ecological site assessment.
- 1.3.4 Consideration should also be given to Environment Act 2021. A core element of this is Biodiversity Net gain through planned development. Local Planning Authorities are beginning to adopt the principals of demonstrated ‘net gain’ in planning decisions. (see **Technical Appendix 1**).

2.0 ASSESSMENT METHODOLOGY

2.1 Introduction

2.1.1 The methodology for this Assessment has regard to the Guidelines for Ecological Impact Assessment (EcIA) in the United Kingdom published by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2018).

2.2 Site Survey Methodology

2.2.1 The first stage is a desk study of the site and associated Zone of Influence. This provides background information on the site and local environment in order to effectively target field survey and further desk research. The aims of the field survey are to record land-use and broad vegetation types present on the site and in the surrounding areas, and to evaluate the potential ecological value of the habitats and vegetation communities' present along with their potential to support protected species, species of principal importance, and any other notable species. Further details of the methodology used can be found in **Technical Appendix 3**. The assessment undertaken reflects the scale of the proposed works within the site overall.

3.0 BIOPHYSICAL CHANGES AND THE ZONE OF INFLUENCE

3.1 Introduction

3.1.1 In order to be able to target relevant ecological survey and assess the impacts of a proposed development, it is necessary to identify the activities that may result in biophysical changes from the development and the area these cover (i.e. the zone of influence). There are three stages of this development scheme that include activities that may have an impact on features of ecological value; namely site preparation, construction and operation / use.

3.1.2 **Figure 2** below shows the extent of the site.

3.2 Biophysical Changes associated with the Development Scheme – Determination of the Zone of Influence

3.2.1 The potential zone of influence of the proposal is determined from the predicted biophysical changes brought about by activities associated with construction and post-construction phases. Therefore, the zone is predicted to extend across the development footprint and locally along the edge of the site, and immediately adjacent to the site. Consequently, survey has been carried out within this zone.

3.3 Site Preparation / Construction Activities and Biophysical Changes

3.3.1 During the construction phase, it is predicted that site preparation activities will include some earthworks and earth stripping associated with the small areas of new building footprint and part dismantling of existing structure. This phase may affect habitat suitable for wildlife. Without appropriate mitigation, site clearance work may result in death or injury to protected species (if they are present), or damage to other features of ecological value. Construction could result in the loss of features of ecological value and/or the loss of habitat of protected species resulting in a net decrease in biodiversity.

3.3.2 The construction on the site has the potential to affect adjacent garden habitats, where present, through noise, air and run off pollution.

3.4 Predicted Operational Activities during Use Phase and Biophysical Changes

3.4.1 The operational phase will need to consider how protected species and species of conservation concern may use the site and zone of influence, and what effect the proposals may have on their conservation status locally.



Figure 2: Existing / Proposed site plan

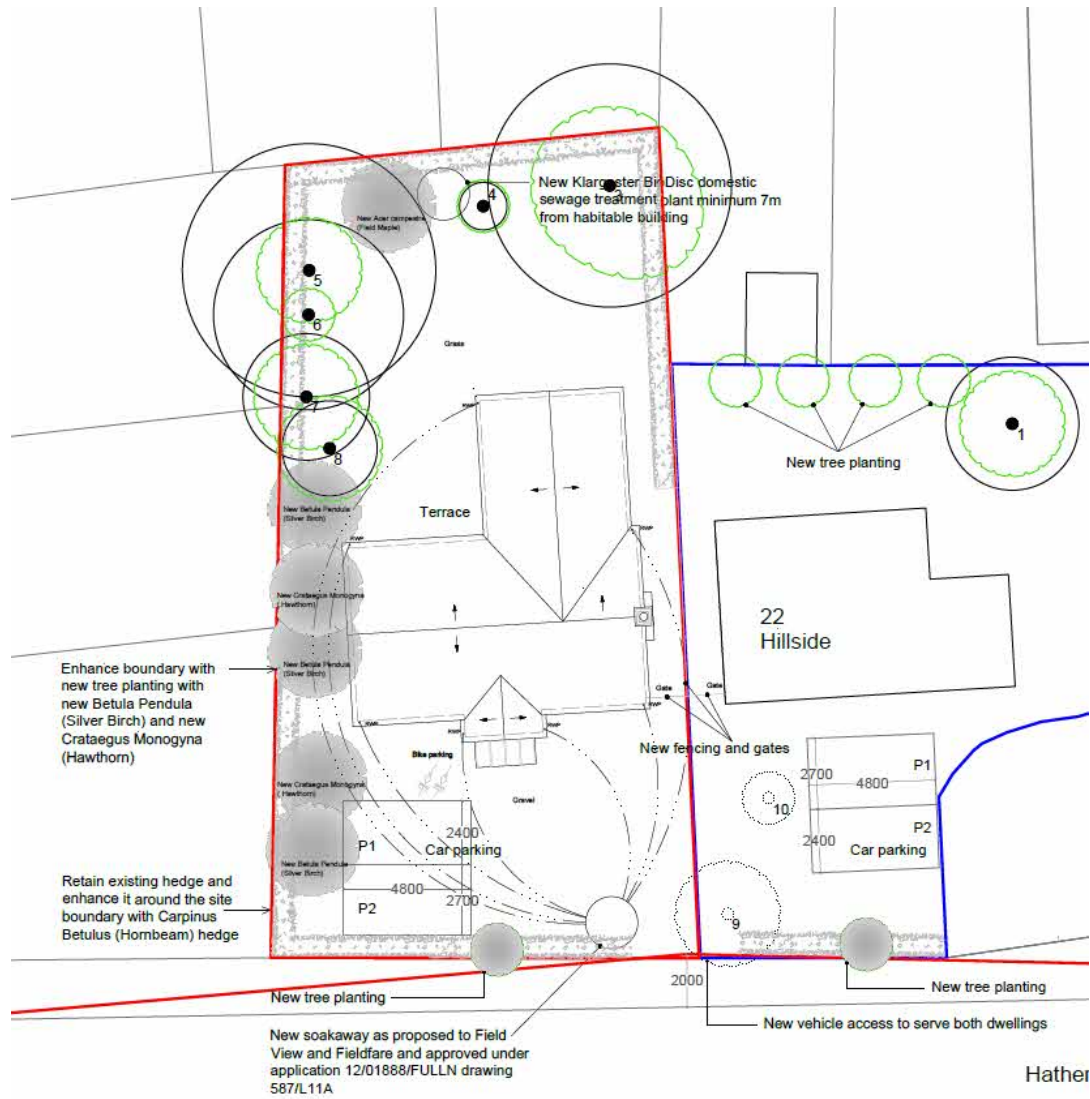


Figure 3e: Proposed site Plan - detail

4.0 BASELINE CONDITIONS WITHIN THE ZONE OF INFLUENCE

4.1 Introduction

- 4.1.1 The ecological baseline describes the site in the context of the characteristic habitats of the area, and includes descriptions of designated sites and ecological features present within the potential zone of influence of the proposed development. Survey of the site was undertaken in March 2022 and updated October 2023.

4.2 Designated Sites

Statutory Sites

- 4.2.1 Natural England has identified Natural Areas that are used to describe the broad natural associations across England. The site falls within the South Coast Plain & Hampshire Lowlands Natural Area:

'The landscape of the South Coast Plain and Hampshire Lowlands is split between the generally open, often featureless landscape of the coastal plain and the more varied landscape in the west. The Natural Area contains a number of nature conservation features. Although relatively small in extent, the south-facing slopes of Portsdown Hill support some high-quality chalk grassland, and the chalk rivers of the Itchen and Test flow through the Natural Area, supporting fine examples of threatened habitat and several key species. The floodplains of the Rivers Test and Itchen contain some botanically rich neutral grassland and elsewhere in the Natural Area fen and fen-meadows occur, especially where chalk springs arise at the foot of the downs.'

- 4.2.2 The nearest statutory Rushmore and Conholt Downs Site of Special Scientific Interest (SSSI) situated 3.4km North and The River Test (SSSI) situated 9.8km South. The River Test (SSSI) flows into the Solent and Southampton Water Special Protection Area (SPA), Special Area of Conservation (SAC).

4.3 Habitats and Vegetation

Introduction

- 4.3.1 The zone of predicted influence consists of hard standing, gravel and some small highly maintained flower beds and lawn. The construction zone is almost entirely on existing lawn and gravel hardstanding which is thought to relate to a previous greenhouse location.
- 4.3.2 The site is further illustrated in **Photos 1-5** and **Figure 3a-d**.
- 4.3.3 The typical range of lawn grasses were present with Perennial Rye *Lolium perenne* dominating in many areas indicating some past seeding, along with Red Fescue *Festuca rubra* Meadow Grass *Poa sp.* Cock's-foot *Dactylis glomerata*. The grassland lawn areas contained a few visible herbs at the time of survey.



Photo 1: View west across side, existing garden planting retained and incorporated into scheme



Photo 2: East roadside boundary with tree protection fencing of retained roadside and neighbouring hedgerow



Photo 3: Existing front hedge retained and fence of No 22 and access.



Photo 4: hedge just to south of site, laurel dominated



Photo 5: Lawn areas looking south and west to roadside boundary.

Waterbodies

- 4.3.5 There are no known waterbodies are present on site, or noted from the site visit and OS mapping from the immediate area.

Flora

- 4.3.6 No rare or scarce species were recorded on site. The bordering garden hedgerows are a longer-standing feature but are mostly ornamental rather than native.

Evaluation of Vegetation and Habitats

- 4.3.7 The site has been evaluated based on survey visits in 2022/23. The majority of the habitats over the south part of the site are considered to be species poor and are of negligible value within the zone of influence. The boundary vegetation/hedgerows are of **Value within the Zone of Influence**

4.4 Protected Species & Species of Conservation Concern

Birds

- 4.4.1 Given the habitats present and location a number of commoner garden /woodland edge species are present around the site and will use some of the habitats on the site. During the survey species of conservation concern Dunnock and Wren were noted on site. These species are Amber listed as a result of national population declines (Stanbury *et al*, 2021).
- 4.4.2 The structure of the habitats and low species diversity suggests the site is only likely to be of **Value within the Zone of Influence** for bird populations.

Bats

- 4.4.3 A bat survey of the site area was undertaken looking at foraging, commuting and roosting potential. All bats and their roosts are protected under law (see **Technical Appendix 1 & 2**).
- 4.4.4 There are no suitable structures or features for bat roosting on the site. The garden area is likely to be used for local foraging and commuting in a suburban context.
- 4.4.5 The garden habitats are considered to be of **Value within the Zone of Influence** to bat populations.

4.4.6



Dormouse

- 4.4.7 The site is suburban with houses and gardens on three sides. The site is also poorly linked to any suitable habitat and existing garden hedgerows will be retained.

Reptiles & Amphibians

- 4.4.8 Slow-worm are recorded in the local area, and small amounts suitable habitat for reptiles exists mostly on the boundaries of the site, which contains woody vegetation. The main building footprint has limited suitable reptile habitat. The majority of the site habitats are however relatively poor (maintained) garden habitat structure provide only limited habitat for small numbers of reptiles and most suitable habitat retained.

5.0 BRIEF ASSESSMENT OF LIKELY IMPACTS AND OPPORTUNITIES FOR MITIGATION

5.1 Introduction

- 5.1.1 In view of the predicted activities and the resultant biophysical changes associated with the proposal, as described in Section 3, this section identifies the main potential ecological impacts within the predicted zone of influence, those considered potentially likely to arise in to provide focus for recommendations for mitigation and/or further survey work.

5.2 Protected Sites

- 5.2.1 The proposal is a new property within a formal garden area of the existing property. The nature, scale and location of the development is likely to be such that designated sites are generally considered to be of sufficient distance for the proposed development not to have significant adverse impacts on their features subject to standard pollution prevention and control associated with any impacts to waste water from the property and Nutrient Neutrality. The River Test (SSSI) flows into the Solent and Southampton Water Special Protection Area (SPA), Special Area of Conservation (SAC).

5.3 Habitats & Species on Site

Potential Impacts on Habitats and Vegetation

- 5.3.1 The scheme design has limited potential for impact on the mature hedgerows on the site, and in particular the boundary hedges of the west and north where adverse impacts on habitats could occur. The remaining vegetation in the central area of the site is generally of low nature conservation value, being formal gardens and lawn. In addition, part of the footprint is over hardstanding for a former greenhouse.

Potential for Impacts on Protected Species and Species of Conservation Concern

- 5.3.2 There is potential for nesting bird species within woody vegetation and buildings on site. Without mitigation there is the potential for a development to affect the nests of birds, which would be contrary to Section 1 of the Wildlife & Countryside Act 1981 (as amended).
- 5.3.3 No works have the potential to destroy and disturb any bat roosting. Mature garden planting and hedgerows will be retained so and local flight corridors and foraging will not be significantly affected.
- 5.3.4 No evidence of Badgers was noted on site, or Badger Setts to be impacted by the proposals, however they are likely to be present within the wider local area, and may forage on the site on occasion.
- 5.3.5 A small localised area of low potential reptile habitat, lawn and flowerbed) is present on site and is to be affected by the new property. Existing garden mature garden landscaping will be retained.

5.4 Mitigation and Enhancement for Ecological Features Affected by the Scheme

- 5.4.1 Although there was no evidence of active Badger Setts on the site, development of the site should have regard to the presence of Badgers and other mammals and animals moving through the site. Mitigation in the form of safe work practices should be employed to avoid impacts during construction. Any excavation works required within the development will be covered over night to prevent and animals, nocturnal mammals such as hedgehogs and badgers falling in and becoming trapped. Alternatively, a suitable ramp should be provided or the excavation battered to allow and trapped animals to escape.
- 5.4.2 There is very little potential reptile / amphibian habitat present that will be impacted by the construction. As this is such a small area, hand clearance of any likely areas will be sufficient to prevent the harm of any reptiles/amphibians present. A supervised destructive search of potential reptile habitats should take place during the active reptile season (April – early Oct).
- 5.4.3 Vegetation clearance should be undertaken outside the bird nesting season (ie between Sept-end Feb), cutting to 10cm above ground level in areas where reptile habitat is present. Small amounts of nesting bird habitat may be able to be cut during the active nesting season only where it is thoroughly checked by a qualified ecologist and the vegetation is not extensive. Contractors should as standard be made aware of the potential when works begin. One reptile habitat pile will be created to enhance the site boundaries for reptiles and amphibians.
- 5.4.4 Landscaping of a new garden areas will be localised around the house. Existing mature planting is proposed to be retained. The existing planting should be supplemented to enhance biodiversity, through native locally sourced woody species, hedgerow enhancements, and provision of new wildflower grassland areas.
- 5.4.5 The provision of bird boxes on site in the form of a Sparrow Terrace and general purpose 27/32mm hole nest boxes would also provide additional local wildlife benefit. A single bat roost until will be incorporated into the new building see **Figure 5**.

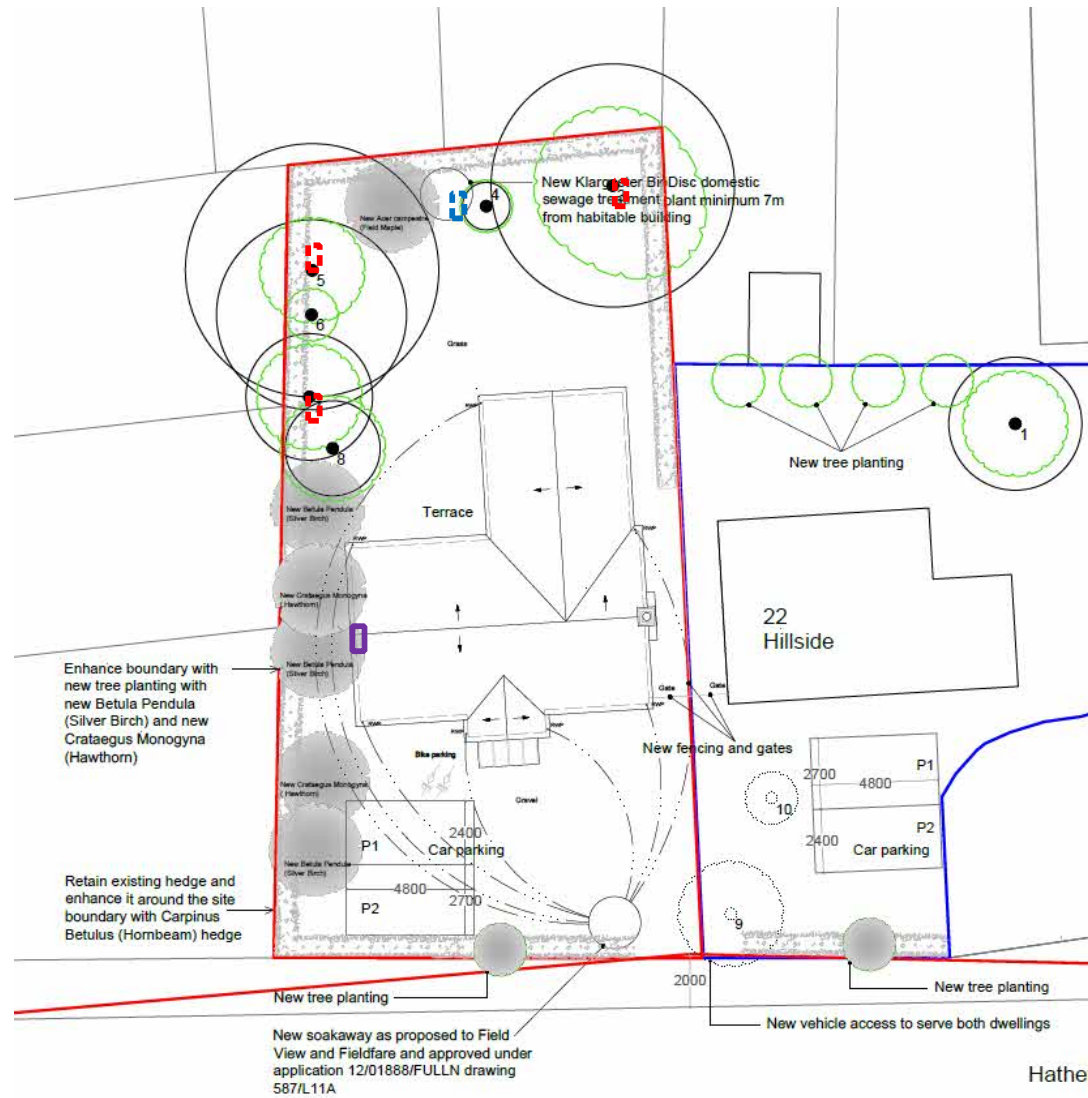


Figure 5a: new roosts - Scale 1:100 Bird Nest Box Bat roost unit 2fr type roost unit Reptile Habitat Pile

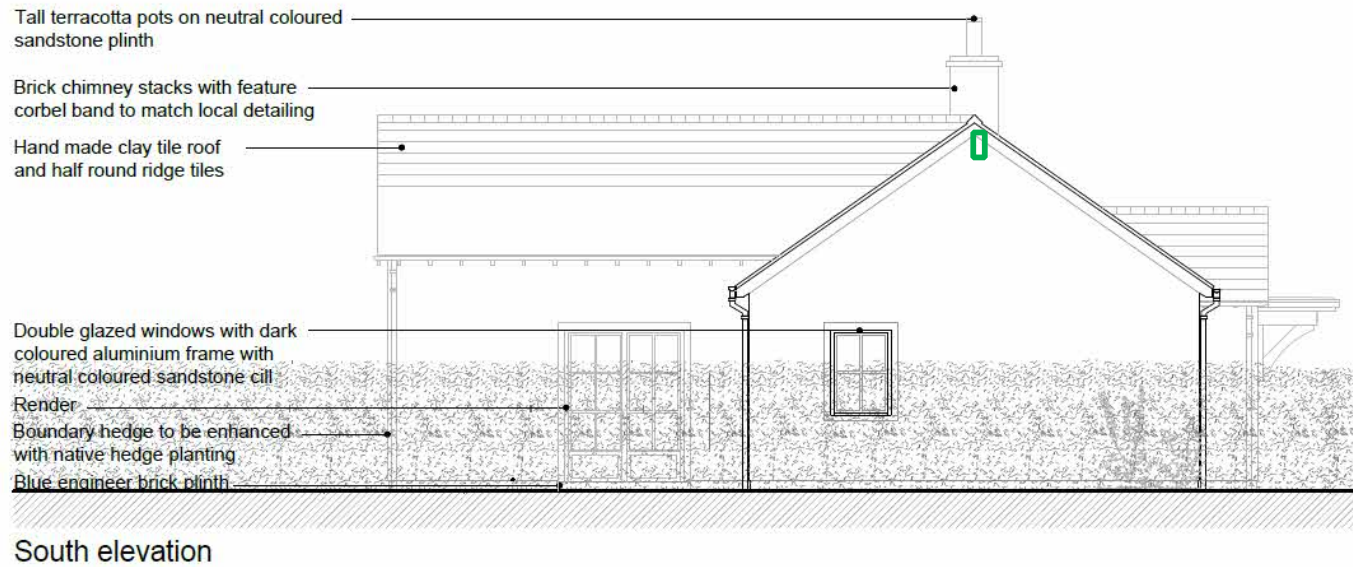


Figure 5b: New Roost provision 0



Figure 5c: Biodiversity enhancements



Reptile / wildlife habitat Pile – stacked logs / stone/ blocks cover with soil and grass



Sparrow Terrace

26mm Woodcrete



32mm Woodcrete



6.0 CONCLUSIONS AND RECOMMENDATIONS

Compliance with legislation

- 6.1. Due to the potential presence of small numbers of reptiles such as Slow-worm and breeding birds in garden vegetation, both protected by the provisions of the Wildlife and Countryside Act 1981, vegetation and building clearance associated with the development will be required to be carried out sensitively to ensure that reptiles are not harmed and bird nests are not impacted. The mitigation proposed will ensure that legal and policy provisions relating to protected species will be met.

CONCLUSIONS

- 6.2 An ecological appraisal of the site was undertaken in order to provide an indication of the potential for habitats and species of conservation concern to be present on site. The vegetation and habitats of the site are described, and potential for presence of protected and notable biodiversity. Options for mitigation and biodiversity gain are presented.

7.0 REFERENCES

Bat Conservation Trust (2016) Bat Survey Good Practice Guidelines Third Edition

BCT & ILP (2023) Guidance Note GN08/23 Bats and Artificial Lighting in the UK, Bats and the Built Environment Series

CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, Institute of Ecology and Environmental Management, Winchester.

CIEEM (2019) Guidelines for Ecological Impact Assessment in the United Kingdom Second Edition

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Government & Natural England (2023) Standing Advice for Protected Species from www.gov.uk

Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.

Andrew Stanbury, Mark Eaton, Nicholas Aebischer, Dawn Balmer, Andy Brown, Andy Douse, Patrick Lindley, Neil McCulloch, David Noble and Ilka Win (2021) The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114, December 2021 p723-747

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Technical Appendix 1
Wildlife & Countryside Act
Habitats Regulations and Schedule 2 Species
Natural Environment & Rural Communities Act 2006
Environment Act 2021

WILDLIFE & COUNTRYSIDE ACT 1981 (AS AMENDED)

The Wildlife and Countryside Act 1981 (as amended) (WCA) is the principle legislation in Britain for the protection and conservation of our wildlife and its habitats of national importance. The legislation adopts a habitat and species based approach to nature conservation. Habitats and some species are protected in designated Sites of Special Scientific Interest (SSSI). Other species are afforded some protection from harm or disturbance by way of inclusion in either Section 1 (birds), Schedule 1 (specially protected birds), Schedule 5 (specially protected animals) or Schedule 8 (specially protected plants).

Protection Afforded to SSSIs

The presence of an SSSI on or near to a development is a material consideration, and this is discussed further in planning policy (see National Planning Policy Framework)

Law Relating to Protected Species

The WCA provides protection to such species in Part 1 of the Act. These sections provide protection from intentionally:

killing, injuring or taking any wild bird or taking, damaging or destroying the nest or eggs of a wild bird

disturbing any wild bird in Schedule 1 whilst building, on or near a nest, or disturbing dependant young of such birds

damaging, destroying or obstructing access to any structure or place of shelter or protection of a schedule 5 animal, or disturbs any such animal whilst it is occupying a structure or place it uses for that purpose

killing, injuring or taking any animal listed in Schedule 5

Having in possession or control any live or dead wild bird or egg, or any wild animal in Schedule 5, or trading in any animal under Schedule 5.

Damage to plants listed in Schedule 8 or uprooting of wild plants unless an authorised person.

Exemption and licences for development can be obtained in certain circumstances. Protected species are also a material consideration in planning applications.

Disturbance & Recklessness

The Countryside and Rights of Way Act 2000 (CRoW Act 2000) adds to protected species legislation in the WCA. The lesser test of 'Recklessness' is added to the protection from disturbance in three circumstances. These are:

- disturbance to Schedule 1 birds and their nests, eggs and dependant young,
- disturbance to Schedule 5 animals in their place of shelter/protection, and
- disturbance to the places of shelter/protection of Schedule 5 animals.

This addition means that any person who deliberately takes an unacceptable risk or fails to notice an obvious risk falls under the Section irrespective of intention. The CRoW Act also provides greater protection to SSSIs from operations (and non-operations) of owners, occupiers and third party users of the SSSI.

For further information see: <https://www.legislation.gov.uk/ukpga/1981/69>

HABITAT REGULATIONS 2017

General

The Conservation of Habitats and Species Regulations 2017 ('The Habitat Regulations') consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law. They also transpose elements of the EU Wild Birds Directive in England and Wales. The Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites.

European Protected Species

Species listed under Annex II of the Habitats Directive were formally afforded protection by the Habitat Regulations. European protected species include the great crested newt, dormice and all species of bats. The provision relating to wild animal offences is reproduced below:

Protection of certain wild animals: offences

43.—(1) A person who—

- (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,
- is guilty of an offence.

(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.

(3) It is an offence for any person—

(a) to be in possession of, or to control,

(b) to transport,

(c) to sell or exchange, or

(d) to offer for sale or exchange,

anything to which this paragraph applies.

(4) Paragraph (3) applies to—

(a) any live or dead animal or part of an animal—

(i) which has been taken from the wild, and

(ii) which is of a species or subspecies listed in Annex IV(a) to the Habitats Directive;

and

(b) anything derived from such an animal or any part of such an animal.

(5) Paragraphs (1) and (3) apply regardless of the stage of the life of the animal in question.

(6) Unless the contrary is shown, in any proceedings for an offence under paragraph (1) the animal in question is presumed to have been a wild animal.

(7) In any proceedings for an offence under paragraph (3), where it is alleged that an animal or a

part of an animal was taken from the wild, it is presumed, unless the contrary is shown, that that

animal or part of an animal was taken from the wild.

(8) A person guilty of an offence under this regulation is liable on summary conviction to imprisonment for a term not exceeding six months or to a fine, or to both.

(9) Guidance as to the application of the offences in paragraph (1)(b) or (d) in relation to particular species of animals or particular activities may be published by—

(a) the appropriate authority; or

(b) the appropriate nature conservation body, with the approval of the appropriate authority.

(10) In proceedings for an offence under paragraph (1)(b) or (d), a court must take into account

any relevant guidance published under paragraph (9).

(11) In deciding upon the sentence for a person convicted of an offence under paragraph (1)(d),

the court must in particular have regard to whether that person could reasonably have avoided the

damage to or destruction of the breeding site or resting place concerned.

Section 44 provides certain defences to the above.

The granting of a licence under Part 5 Section 55 of the Habitat Regulations

In order to carry out a lawful operation (e.g. development work which has full planning permission) that may result in any of the offences above, it is necessary to obtain a licence from Natural England to allow the operation to proceed.

However, in accordance with the requirements of the Habitats Regulations, a licence can only be issued after the following conditions have been satisfied:

that there is no satisfactory alternative, and

*that the action authorized will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.
that the action is required in preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;*

Full planning permission is required to apply for a Natural England licence (where such a consent is necessary for the work to be carried out). In addition, a method statement which details the survey results, methodology of work to be undertaken, mitigation and compensation measures, must be submitted to Natural England with the licence application.

Plans and Projects & Designated Sites

The Regulations provide procedure whereby designated SAC or SPA and other European Protected Sites are afforded protection from plans and projects that may be likely to have a significant effect on the Features for which these sites are designated. Where a significant effect is considered likely in-combination with other projects an appropriate assessment is required to be undertaken. Details of this procedure can be found at Part 6 of the Act onwards, see link below.

For Full details of the 2017 Habitat Regulations see:

http://www.legislation.gov.uk/uksi/2017/1012/pdfs/uksi_20171012_en.pdf

NATURAL ENVIRONMENT AND RURAL COMMUNITIES ACT 2006

This Act places a specific duty to conserve biodiversity on all public bodies, including Local Planning Authorities. In order to aid with this process Section 41 of the Act requires the Secretary of State to publish lists of living organisms and habitats which are of principal importance for the purpose of conserving biodiversity. These are the national Biodiversity Action Plan (BAP) lists, and BAP projects are also undertaken at a County, Borough or District level.

For further information see: <https://www.legislation.gov.uk/ukpga/2006/16/part/3>

ENVIRONMENT ACT 2021

Royal Assent 9 November 2021

The Environment Act 2021 has recently received Royal Assent and will introduce a number of nature conservation initiatives. These include Biodiversity Net Gain assessments. The following measures are part of the Act (see Gov.UK, 2021):

- Strengthened biodiversity duty;
- Biodiversity net gain to ensure developments deliver at least 10% increase in biodiversity;
- Local Nature Recovery Strategies to support a Nature Recovery Network;
- Duty upon Local Authorities to consult on street tree felling;
- Strengthen woodland protection enforcement measures;
- Conservation Covenants;

Protected Site Strategies and Species Conservation Strategies to support the design and delivery of strategic approaches to deliver better outcomes for nature;
Prohibit larger UK businesses from using commodities associated with wide-scale deforestation;
Requires regulated businesses to establish a system of due diligence for each regulated commodity used in their supply chain, requires regulated businesses to report on their due diligence, introduces a due diligence enforcement system;
Long-term targets to improve air quality, biodiversity, water, and waste reduction and resource efficiency;
A target to halt the decline of nature by 2030;
Environmental Improvement Plans, including interim targets;
A cycle of environmental monitoring and reporting;
Environmental Principles embedded in domestic policy making;
Office for Environmental Protection to uphold environmental law;
Air and Water pollution measures.

For further information see:

https://www.legislation.gov.uk/ukpga/2021/30/pdfs/ukpga_20210030_en.pdf

Biodiversity Net Gain under the Environment Act

Mandatory biodiversity net gain in England is likely to become law in 2023 (through amendments to the Town & Country Planning Act). The key measures include (see eg Gov.uk & Local.gov.uk):

- Minimum 10% gain required using Biodiversity Metric;
- Habitat secured for at least 30 years via obligations/ conservation covenant;
- Habitat can be delivered on-site, off-site or via statutory biodiversity credits;
- Creation of a national register for net gain delivery sites;
- Continued use of mitigation hierarchy - avoid, reduce, off-set (mitigation and compensation);
- Will apply to Nationally Significant Infrastructure Projects (NSIPs)
- Will not apply to marine development;
- Works alongside existing legal environmental and wildlife protections.

Adopted Local Plan 2011-2029 Test Valley Borough Council

Policy E5: Biodiversity

Development in the Borough that will conserve, and where possible restore and / or enhance, biodiversity will be permitted.

Development that is likely to result in a significant effect, either alone or in combination, on an international or European nature conservation designation, or a site proposed for such designation, will need to satisfy the requirements of the Habitat Regulations⁹⁹.

Development likely to result in the loss, deterioration or harm to habitats or species of importance to biodiversity or geological conservation interests, either directly or indirectly, will not be permitted unless:

- a) the need for, and benefits of, the development in the proposed location outweighs the adverse effect on the relevant biodiversity interest;
- b) it can be demonstrated that it could not reasonably be located on an alternative site that would result in less or no harm to the biodiversity interests; and
- c) measures can be provided (and secured through planning conditions or legal agreements), that would avoid, mitigate against or, as a last resort, compensate for the adverse effects likely to result from development.

The habitats and species of importance to biodiversity and sites of geological interest considered in relation to points a) to c) comprise:

- Sites of Special Scientific Interest (SSSIs);
- legally protected species;
- Sites of Importance for Nature Conservation (SINCs) and Local Nature Reserves (LNRs);
- priority habitats and species listed in the national and local Biodiversity Action Plans⁹⁹;
- habitats and species of principal importance for the conservation of biodiversity in England¹⁰⁰;
- trees, woodlands, ancient woodland (including semi-natural and replanted woodland), aged and veteran trees, and hedgerows; and
- features of the landscape that function as 'stepping stones' or form part of a wider network of sites by virtue of their coherent ecological structure or function or are of importance for the migration, dispersal and genetic exchange of wild species.

The level of protection and mitigation should be proportionate to the status of the habitat or species and its importance individually and as part of a wider network.

Technical Appendix 3

Ecological Appraisal Method

Introduction

The methodology for this appraisal is based on the Guidelines for Ecological Impact Assessment (EcIA) in the United Kingdom published by the Institute of Ecology and Environmental Management (IEEM June 2006). Regardless of whether a statutory Environmental Impact Assessment is required, these guidelines provide a robust framework for ecological assessment at any scale.

Desk Study

The first stage of the appraisal is a desk study of the proposed development site and associated Zone of Influence. This provides background information on the site and local environment so as to more effectively target field survey and further desk research.

The Multi Agency Geographical Information for the Countryside (MAGIC) database and Natural England's 'Nature on the Map' are interrogated for information regarding nationally or internationally designated sites within 1km or 5km of the site respectively. The National Biodiversity Network (NBN) data base is interrogated primarily for any relevant local protected species records within the area. The NBN provides access to a substantial volume of biodiversity data for the UK. Although rarely site specific, it does provide valuable information on the local occurrence of protected species.

Where appropriate, the local environmental Record Centre is approached to provide information regarding locally identified sites and records of protected and/or notable species within and around 1km of the site and European Protected species within 5km of the site.

Site Survey Methodology

The aims of the survey are to record land-use and broad vegetation types present on the site and in the surrounding areas, and to evaluate the habitats and vegetation communities ecological value along with the potential to support protected species, species of principal importance, and any other notable species.

Where relevant, habitat immediately adjacent to the site is also assessed as this can have a bearing on the possible presence of protected species on the site and the ecology of adjacent areas can be affected by development nearby.

Habitats and Vegetation

Habitats and vegetation communities are recorded on a broad scale by visually noting contrasting land uses, vegetation zones and landscape features, such as hedgerows and trees. Dominant plant species are recorded in each of the areas identified, as are any notable plant species, such as protected species and habitats or notifiable weeds.

Protected Species

Many plant and animal species are legally protected in the UK. Some, such as bats, badger, water vole and great crested-newt are commonly encountered on development sites. Protected species law is a serious consideration for developers and land owners, as failure to confirm their presence during initial project conception can later lead to serious programming delays and their associated costs and to prevent any infringement of the law.

Case law has established (Regina vs. The Cornwall County Council ex parte Hardy 2001) that “It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted.

For the most regularly encountered protected species, a brief summary of methods follows:

Bats

Bats use buildings and trees for roosting and breeding, and so the potential for any of these features on site to support bats was considered, as was the site’s potential for providing bat foraging habitat. The survey for signs of residence by bat species consisted of a slow, methodical search both internally and externally for actual roosting bats and their signs which could indicate the presence of a bat roost including:

Bat droppings – e.g. on floors, stored articles, walls, beams, tiles, windowsills entry/exit points, etc. These can be used to aid species identification.

Dark staining at well-used roost sites (e.g. ridge boards and timber joints, etc.) or entry/exit points.

Wear marks at bat roost sites and entry/exit points. This can be a polishing and smoothing of rough wood surfaces and masonry or slight scuffing of very smooth wooden surfaces.

Urine spots or streaking in the vicinity of bat roosts and entry/exit points.

Similarly, the presence of spider webs at a potential roost can often indicate their absence at that time, but requires careful interpretation combined with other evidence.

All internal spaces of the building were searched for any roosting bats or signs to indicate their use by bats, including gaps at the roof timber frame joints. External surfaces of the building were also examined for evidence of use of any potential bat access points. This survey was achieved using a strong torch in dark internal areas, endoscope for inaccessible spaces, binoculars and, where appropriate, a ladder to examine the buildings externally.

The potential to support bat roosts either in the summer (nursery) or winter (hibernation) based previous experience of bat occupancy at other sites and upon the presence of suitable roost sites and access points was also considered. In particular, the potential for roost sites which are hidden from view is noted.

Evaluation

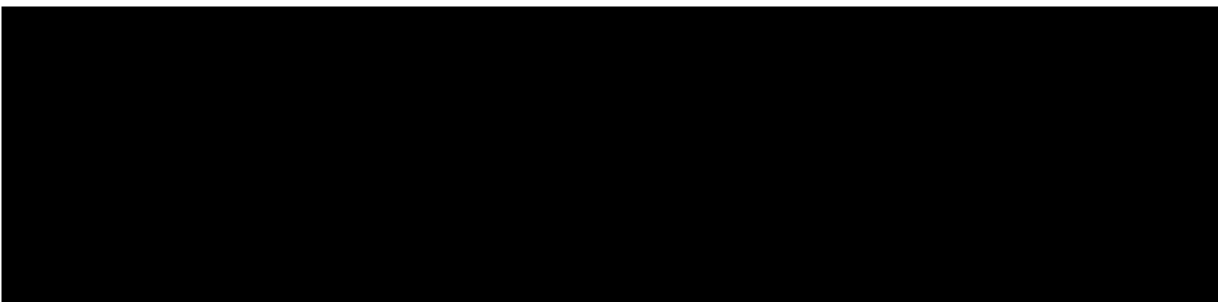
The aim of this Bat Survey is to evaluate the potential suitability of the proposed development site in relation to bat use and bat roosts using the Bat survey guidelines (Bat Conservation Trust (2016) Bat Surveys Good Practice Guidelines 3rd Edition), which provides guidance on assessing and evaluating development sites and features for bat roost potential. The potential for structures to support roosting or breeding bats is evaluated under the protocol for the visual internal and external inspection (Negligible, Low, Moderate or High).

Survey Constraints and Limitations

Lack of bat evidence cannot always be taken to mean the lack of use by bats as signs of bats can be easily washed off by wind or rain; droppings are hard to see where rubble and other

floor debris may obscure them; low numbers of droppings can easily be missed especially where they may become damp and deteriorate; evidence of bats may not be apparent where bats roost out of view, such as in tree and wall cavities, etc.

The survey was carried out during a brief window of time and, therefore, the survey has provided only a snapshot of the site use. Since bats regularly move between different roost sites, particularly to satisfy their varying requirements at different times of the year, a bat survey often concentrates upon searching for signs to indicate the presence of roosting bats at any time of the year. Due to these survey limitations an assessment using professional judgement has been used to interpret the findings and the potential for supporting bats and is used to guide any recommendations for precautionary approaches to carrying out the proposed work.



Dormice

The presence of Dormouse on or near the site was considered during the survey, principally through habitat suitability, combined with data on occurrence within the area. Where suitable habitat occurs, further survey for feeding signs on hazel nuts and honeysuckle where it occurs along with searches for arboreal nests. If it a site is considered suitable, further survey may be recommended.

Other Mammals

Consideration is also given to the potential for habitats to support other legally protected mammals and those of nature conservation importance. Where any water bodies occur on or near to the site species including Water Vole *Arvicola terrestris* and Otter *Lutra lutra* are considered. Depending upon the geographic location consideration is also given to species such as Red Squirrel .

Breeding Birds

Any notable bird species seen during the survey are recorded. The type and quality of breeding, foraging and roosting habitats available for birds is also considered and interpreted with particular reference to protected or more notable bird species.

Consideration is given to any features which could support nesting birds, (Buildings and other structures, and areas of vegetation) that will be cleared or disturbed as a result of the development.

Reptiles

Any areas of habitat considered suitable for supporting reptiles were noted (for example, areas of rough grassland and scrub, banks, burrows, and rubble piles, compost heaps).

Great Crested Newt

Due to declines in numbers predominantly due to habitat loss and restricted European range, Great Crested Newts *Triturus cristatus* are protected under Section 9 of the Wildlife and Countryside Act, 1981 (as amended) and Regulation 39 of the Conservation (Natural Habitats &c) Regulations 1994, which protects Great Crested Newts from harm, injury and deliberate capture, killing, disturbance, damage and destruction of eggs, breeding site or resting place. This includes deliberate or reckless damage or disturbance.

Survey was by habitat suitability (the occurrence of suitable ponds and terrestrial habitat) combined with knowledge on their distribution from biological records for the area. If a site is considered suitable, further survey is usually required if an impact is considered likely.

Invertebrates

A very small proportion of invertebrates are afforded legal protection under the Wildlife and Countryside Act 1981 (as amended), although a relatively high number of invertebrates are included within the UK and local BAPs, and many more species are identified as being Nationally Scarce. Most invertebrates require specialist knowledge in order to identify them, although some groups, including butterflies and dragonflies, can be readily identified by generalists. Therefore, apart from recording any species of these readily identifiable groups, the survey concentrated on recording the presence of any key habitats of nature conservation importance considered suitable for supporting more scarce and restricted invertebrates, for example bare ground, dead wood and botanically rich habitats.

Survey Constraints and Limitations

Walkover surveys are carried out during a brief window of time. And therefore, the survey will provide only a snapshot of the range of plants and animals that might be present. However, professional judgement is used to interpret the habitat features recorded, and their likely value for supporting protected and notable species, including species of principal importance. Where timing is likely to significantly affect the results of a survey, further survey work is often recommended. Survey can also be restricted through land access, especially land adjacent to the site.

Assessment Guidelines

Introduction

The IEEM guidelines (2006) provide three principal reasons for an ecological feature being valued and therefore included within the EcIA: biodiversity value, social/community value, and economic value.

The evaluation and assessment undertaken assigns one of a number of value labels based on a geographic scale as follows:

- International
- National
- Regional
- County
- District
- Local (Parish)
- Within the zone of influence

Value is determined with reference to the following factors:

- level of designation (sites) or biodiversity-based protection (legal and policy);
- biodiversity value (e.g. inclusion in Biodiversity Action Plans, rarity, position in ecosystem, assemblages and communities, size and diversity);
- social and economic value;
- legal issues (eg protected sites).

All impacts of the scheme on features of local importance or greater are assessed in the impact assessment stage

Assessment of Likely Impacts

The ecological impact assessment methodology used is based on the following considerations.

Characterisation of Likely Impacts

The potential impacts identified as a result of the proposals are characterised according to the following parameters:

- Positive or negative
- Magnitude (and extent if not synonymous)
- Duration
- Reversibility
- Timing and frequency

Significance of Impact

A significant impact on a valued ecological feature (whether negative or positive) is defined in IEEM's guidelines as an impact on the integrity of a defined site or ecosystem, and/or the conservation status of habitats or species within a given geographical area. These terms are defined below.

Integrity

Integrity is defined as follows. *'The integrity of a site is the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified.'* A site or ecosystem that achieves this is considered to be at favourable conservation status.

Conservation Status

For habitats, conservation status is determined by the sum of the influences acting on the habitat and its typical species, which may affect its long-term distribution, structure and functions as well as the long-term survival of its typical species within a given geographical area.

For species, conservation status is determined by the sum of the influences acting on the species, which may affect the long-term distribution and abundance of its populations within a given geographical area.

Impact Prediction

For guidance as to whether an impact is likely to result in an adverse effect on the integrity or conservation status of a feature, reference has been made to the conservation objectives for that feature where they are available, for example in habitat and species action plans. Otherwise professional judgement has been made based on available information.

The confidence in the prediction that an activity will give rise to a significant adverse impact on a valued ecological feature is given based on a four point scale:

- Certain (or near-certain);
- Probable;
- Unlikely; and
- Extremely unlikely

Drawing the Assessment Together

The above factors – value, integrity and conservations status of the feature, prediction and characterisation of the impact and overall significance of the impact is brought together in the final assessment. This is done without additional mitigation measures that may be proposed. An impact is then summarised as significant or not.

Mitigation, Compensation and Enhancement

Where impacts are characterised as significant mitigation or compensation may be offered to prevent, reduce or offset such impacts. In addition enhancement measures may be built into a scheme to ensure that the scheme is compliant with the proactive measures outlined in the latest Government policy on nature conservation (PPGs).

