



## Preliminary Ecological Appraisal (PEA)



99 Hightown Road,  
Ringwood  
Hampshire  
BH24 1NL

GR: SU 15724 04969

October 2023



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## **Declaration of Compliance**

### **BS 420202013**

This study has been undertaken in accordance with British Standard 420202013 Biodiversity, Code of practice for planning and development, unless specifically stated otherwise.

## **Code of Professional Conduct**

The information which we have prepared is true and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

## **Validity of Survey Data and Report**

The findings of this report are valid for 12 months from the date of survey, unless the site has been maintained in exactly the same condition, in which case the report can be considered valid for 24 months once verified by the acting ecologist. Please be aware that some Local Planning Authorities (LPAs) require an update once 12 months has elapsed. If work has not commenced within this period, an updated survey by a suitably qualified ecologist may be required.

## **Legal and Moral Constraints and Responsibilities Summary**

An overview of relevant legislation and responsibility is given within the Appendices Planning Policy and Legislation. Constraints exist for development where specific habitats or species are, or are potentially, within or adjoining a site proposed for development.

It is the responsibility of the client and those in receipt of this report to ensure ALL personnel or associated peoples likely to be involved in ANY management or works to this site - including but not limited to the seasonal flailing of hedgerows or cutting of grassland/scrub - are fully informed of any restrictions in force regarding the possible presence of protected species on this site as outlined in this report. If there is any doubt as to what works or management of habitats may legally occur, consultation with the acting ecologist is essential.

Avoidance, mitigation, compensation and enhancement are site specific and apply as herein.

In all instances where Mitigation is given, also refer to:

- Any further survey work for protected species (Phase 2 Surveys) recommended, or their results.
- General Good Practice during Construction Stage.
- Law and Legislation pertaining to specific species (plants and animals)
- Prevention of the spread of native and non-native invasive plants and animals.
- Avoidance of Wildlife Crime <http://www.nwcu.police.uk/>

Further advice if species are found onsite during development may be sought from Ecological Surveys Ltd (Tel 01503 240846 or 07736 458609) or Natural England.



# 1 INTRODUCTION

## 1.1 Executive Summary

Table 1

<b>Purpose of the report:</b>	To present the results of the Extended Phase 1 Habitat Survey undertaken at the named site; assess the impacts of the proposed development on the important ecological features identified and detail applicable compensation, mitigation measures and biodiversity enhancements as appropriate.
<b>Project Description</b>	It is understood the proposal is for the erection of a single dwelling within the rear garden of 99 Hightown Road. This will require the demolition of the existing garage to allow access.
<b>Summary of Habitat</b>	The site is composed of a residential garden and a single skin asbestos roofed garage. The rear garden had been cleared of vegetation prior to the time of survey. It is understood this included a number of garden shrubs and that these were removed outside of the bird nesting season.
<b>Summary of Impact</b>	Proposals have already resulted in a loss of garden shrubs. Although these are likely to have been ornamental and of low value, it is possible birds could have nested within this habitat. Other than this, there are very few potential impacts of the proposed development on features of ecological importance. Nonetheless, precautionary mitigation is still required to minimise any possible impacts to local protected wildlife.
<b>PEA sufficiency</b>	This report is considered sufficient for the size and scale of predicted impacts as a result of the proposal.
<b>Habitat/Species Mitigation</b>	Required: - <ul style="list-style-type: none"> <li>• Impact Avoidance During the Construction Phase</li> <li>• Artificial Lighting Strategy</li> <li>• Bird Nesting Provision</li> </ul>
<b>Habitat/Species Enhancement</b>	Required: - <ul style="list-style-type: none"> <li>• Bat Roosting Provision</li> <li>• Solitary Bee Provision</li> <li>• Landscaping for the Benefit of Wildlife</li> </ul>
The LPA should ensure that any mitigation and compensation measures identified in this report, together with enhancement recommendations are 'conditioned' where appropriate.	



## 1.2 Requirement for Ecological Survey/Assessment

Ecological Surveys Ltd were commissioned to undertake a Preliminary Ecological Appraisal (PEA) to include the potential for legally protected and notable species of the Site, and to assess the potential impact of the development on the biodiversity of the Site and its immediate environs. Ecological Surveys Ltd has not been informed of any previous surveys undertaken on this site that need to inform this report.

All ecological data and information gained through both the desktop survey and the survey work were evaluated. The important ecological features were then identified and evaluated against the potential impacts/effects that the proposed development may have on the ecology of the Site and surrounding area.

The biodiversity importance of each designated site, habitat and species is evaluated on a geographic scale: international, national, county and local.

Evaluation of designated sites considers their designation; their ecological and landscape relationship with the proposed site; and the species and/or habitat types for which the site was designated.

Evaluation of habitats considers their designation; their area, quality and viability; diversity and connectivity to the wider landscape; and structural diversity and species-richness.

Evaluation of species considers their designation, including legal protection and rarity.

When assessing the impact of the development and changes to the baseline conditions on site, predictions will be made which focus solely on the zone of influence whilst taking into consideration the lifespan of the development and the significant impacts as identified from the proposed work operations throughout the lifespan of the development.

The proposed development aims to firstly avoid and then mitigate against any potential effects/impacts on the local ecology/biodiversity, ensuring compliance with nature conservation legislation. It aims to achieve this by applying the mitigation hierarchy (as mentioned in Paragraph 118 of the National Planning Policy Framework and detailed in Paragraph: 018 Reference ID: 8-018-20140306 of National Planning Practice Guidance) as follows:

**Avoidance** – Significant harm to wildlife species and habitats should be avoided through design.

**Mitigation** – where significant harm cannot be wholly or partially avoided, it should be minimised by design, or by the use of effective mitigation measures that can be secured by, for example, conditions or planning obligations.

**Enhancement** - Ecological enhancement measures are those that improve the ecological condition of the development site (or an alternative site) after the development is complete. Ecological enhancement measures must, therefore, be over and above any avoidance, mitigation and compensation measures required to neutralise the impacts of the development on wildlife.

**Compensation** – where, despite whatever mitigation would be effective, there would still be significant residual harm, as a last resort, this should be properly compensated for by measures to provide for an equivalent value of biodiversity.





Appropriate measures to avoid and/or minimise the significant negative effects on the important ecological features have been identified. These mitigation measures aim firstly to avoid the overall effect/impact, or for those that cannot be avoided, reduce their overall effect value. It is not always possible to fully mitigate an adverse effect to neutral levels.

Under the National Planning Policy Framework, NPPF, (HM Government, 2019) local planning policies and 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.

[Taken from NPPF 2019, Section 15. Conserving and enhancing the natural environment, paragraph 170, p49]

Thus, the mitigation hierarchy should be applied when considering the impacts of developments and local planning decisions on the natural environment, with the protection of important wildlife sites, habitats, species and ecosystem services; the avoidance of impacts, mitigating these impacts where appropriate, and then achieving biodiversity net gain through enhancements.

Section 15 of the NPPF 2019 goes on to state that '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 incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.'

[Taken from NPPF 2019, Section 15. Conserving and enhancing the natural environment, paragraph 175, p50]

The aim of development should be to deliver biodiversity net gain on site as well as limiting damage to important ecological features. Using the information gained during the desktop survey and the extended Phase 1 habitat survey, and the ecological requirements of habitats, species and local environmental conditions, biodiversity enhancements for the Site have been considered, providing opportunities to increase the diversity of habitats and species on site.

### **1.3 Limitations to Report**

Ecological surveys are limited by factors which affect the presence of plants and animals such as the time of year, migration patterns and behaviour. The current survey was carried out in October 2023. This is not an optimal time for undertaking ecological field surveys for all species/groups. The ecological survey has not produced a definitive list of plant and animal species present on site and the absence of evidence of any particular species should not be taken as conclusive proof that the species is not present or that it will not be present in the future. However, the results of field- and desk-based surveys are considered to have been sufficient to evaluate ecological features within the predicted zone of influence to a high degree of confidence and to enable an initial assessment of potential impacts likely to require mitigating actions.

It should be noted that habitats, and the species they may support, change over time due to natural processes and because of human influence. In line with current guidelines, the survey on which this report is based is only valid for two years, after which time it will need updating. It being accepted that some LPA's now expect a survey to be updated after twelve months.



## 2 METHODS

### 2.1 Desk Based Assessment

An initial desk-based assessment was carried out by Ecological Surveys Ltd collating data relating to the site itself and up to a 2km radius or greater depending upon the import of information gathered and includes:

- Statutory and non-statutory wildlife and earth science sites
- BAP Priority Inventory Habitats
- Legally protected and nationally notable species
- Sites primarily utilised included MAGIC, National Biodiversity Network

The data gathered is considered sufficient along with the field survey to reach appropriate conclusions for the mitigation and enhancement of this site.

### 2.2 Phase 1 Field-based Assessment

The field survey included carrying out an Extended Phase 1 Habitat Survey, consisting of a walkover assessment of the Site using Phase 1 Habitat Survey methodology (JNCC, 2010, as amended by the Institute of Environmental Assessment (IEA, 1995)). This is a standard technique for classifying and mapping British habitats. All areas within the Site were surveyed, the main plant species recorded, and habitat type mapped. Indicators of ecological value were also noted, including the presence or signs of any legally protected or rare species.

A search was also made to identify the presence of any invasive non-native species (particularly those listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)), including Japanese knotweed (*Reynoutria japonica*) and Himalyan balsam (*Impatiens glandulifera*).

#### 2.2.1 Vegetation

All broad habitat types were identified, and a list was compiled of characteristic plant species within each habitat type. Where necessary, habitat types of particular botanical interest are subject to more detailed survey using methods developed for the National Vegetation Classification (NVC) (Rodwell, 1992). The vegetation recorded on site during this Extended Phase 1 Ecological Survey is described here with reference to Joint Nature Conservation Committee Phase 1 habitat terminology.

**Table 2 Protected Species Grading Criteria**

<b>Grading Criteria</b>	<b>Justification</b>
<b>Confirmed Presence</b>	Species confirmed on site through direct sighting, presence of unambiguous field signs (e.g. scat, hair, prints, nest, eggs, habitation etc.) or through desk-based assessment.
<b>High Potential</b>	Presence of optimal habitat features for species. Surveyed site within known range/close to known occurrence. Excellent connectivity to optimal habitat. No justification for discounting presence of species.
<b>Moderate Potential</b>	Presence of some suitable habitat features for species. Surveyed site within/close to known range or known occurrence but factors such as isolation/fragmentation may reduce potential. Presence of



	species is more likely than not.
<b>Low Potential</b>	Minimal suitable habitat present or, if present, highly degraded/fragmented. Minimal linkage to suitable habitat beyond site. Presence of species unlikely.
<b>Negligible Potential</b>	Site is entirely unsuitable for species. Presence of species highly unlikely.

**2.2.2 Buildings**

**Protected Species – Built Structures**

All built structures were assessed for their potential to support protected species. All external and internal areas were inspected for the presence of suitable access, egress nesting or roosting features. Such features include open access for entry or free flight, missing, slipped, broken or bowed roof materials; gaps within soffits; gaps behind fascia; gaps/holes within brickwork; louvers; lifted lead flashing and gaps around window and door casements. Features were inspected using binoculars/close range monocular and the surveyor was equipped with a high-powered torch. All accessible internal void spaces were inspected for actual evidence (field signs) of protected presence (living or dead) nesting material, droppings, fur and urine staining.

**2.2.3 Badger**

The surveyed area and adjacent habitats were inspected for field signs of badger activity. This includes badger setts, latrine sites, dung piles, well-used trails, prints and hairs.

**2.2.4 Bats – Trees**

Trees within and immediately adjacent to the surveyed area were subject to detailed visual inspection from ground level using binoculars in order to identify potential roost features (PRF) which may offer suitable opportunities for bats. These features include dense ivy cladding; woodpecker holes; rot holes; limb stubs; cavities; flaking bark; cracks and splits.

Each tree has been graded for its suitability for supporting bats based on criteria within 'Bat Surveys for Professional Ecologists Good Practice Guidelines 3rd Edition' (Collins, 2016). These criteria are detailed in Table 3.

**Table 3 Bat Roost Tree Grading Criteria**

<b>Grading Criteria</b>	<b>Reason</b>
<b>Confirmed Bat Roost</b>	Unambiguous evidence of roost bats seen emerging/entering, bats audible, droppings/urine-/fur- staining visible or known roost based on desk-based assessment.
<b>1* - High Suitability</b>	Trees with obviously suitable PRFs which are considered capable of supporting larger, established roosts of high conservation significance.
<b>1 - Moderate Suitability</b>	Trees with potentially suitable PRFs but which are not likely to support roosts of high conservation



	status.
<b>2 - Low Suitability</b>	Trees of sufficient size/age to exhibit PRFs but nonvisible from ground-level or features seen appear to offer limited potential.
<b>3 - Negligible Suitability</b>	Trees with no /negligible potential to support bats.

**2.2.5 Bats – Foraging and Commuting Habitat**

An assessment was made of the suitability of the surveyed area and the surrounding landscape to support foraging and/or commuting bats. The assessment was based on the presence of key habitat features such as woodland, scrub, hedgerows, grassland and open water, which are highly attractive to bat species. Of importance, is the presence of unlit semi-natural vegetation and habitat linkage between the site and the surrounding landscape such that the site may form an integral part of landscape-scale habitat for bats.

The quality of bat foraging and commuting habitat has been assessed using the criteria detailed in Table 4.

**Table 4 Bat Foraging and Commuting Habitat Grading Criteria**

<b>Grading Criteria</b>	<b>Reason</b>
<b>Optimal Quality</b>	Presence of optimal habitat features such as unlit woodland, scrub, hedgerows, grassland and open water with excellent linkage to similar habitats within the wider landscape. Presence of high potential buildings/trees and/or known roosts within immediate landscape. Sites are generally rural in character.
<b>Moderate Quality</b>	Presence of optimal habitat features such as woodland, scrub, hedgerows, grassland and open water with reasonable linkage to similar habitats within the wider landscape. Limiting factors may include size of site.
<b>Low Quality</b>	Presence of some limited habitat features such as scrub or hedgerows, with minimal linkage to suitable habitats within the wider landscape.
<b>Poor Quality</b>	No suitable habitat present or, if present, highly degraded/fragmented. Minimal unlit areas with no linkage to suitable habitat beyond site. Generally urban in character.

**2.2.6 Hazel dormouse**

An assessment was made of the suitability of habitat within the site to support hazel dormice *Muscardinus avellenarius*. Key habitats are woodland, scrub and hedgerows, particularly where dense vegetation within which to nest/hibernate is offered along with key resources such as hazel nuts, fruiting/nectar-rich plants (e.g. hawthorn, bramble) and honeysuckle (for nesting material). Of importance is the presence of landscape-scale habitat linkages such as hedgerows, and where the site is linked to such habitat this will raise the potential for the species to occur.



### **2.2.7 Birds**

An assessment was made of the site's suitability to support breeding and wintering bird species. Birds will utilise a broad range of habitats, including built structures; trees; scrub; isolated shrubs; dense herbaceous vegetation (terrestrial and aquatic) and open grassland among others. All bird species observed on site were recorded.

### **2.2.8 Reptiles**

An assessment was made of the site's suitability to support reptile populations. Key habitat features include tussocky/patchy grassland; scrub edge; linear watercourses; ponds; compost heaps; brush piles and rubble/soil heaps. Linkage to suitable habitat within the surrounding landscape will increase the potential for reptiles to occur, although populations can occur within isolated/fragmented habitats even within otherwise-unsuitable areas.

### **2.2.9 Amphibians**

An assessment was made of all waterbodies and terrestrial habitat within the site for their suitability to support populations of amphibians. Suitable waterbodies will generally be characterised by the presence of good quality freshwater, diverse macrophyte cover and an absence of fish.

For the European-protected great crested newt *Triturus cristatus*, each waterbody was, where considered necessary, assessed using the Habitat Suitability Index (HSI) system (Oldham et al., 2000) and assigned a grading score between zero (poor suitability) and 1 (excellent suitability).

### **2.2.10 Invertebrates**

The presence of important invertebrate species or assemblages is generally dependent upon distinct micro-habitats such as dead wood (standing, fallen, of all decay stages), sap runs, damp/wet soils, mixed sun/shade, bare/friable soils (e.g. exposed sand/soil banks) and a diversity of plant species.

For aquatic invertebrates, important species/assemblages will generally be associated with high-quality aquatic habitats such as ponds, rivers, streams and ditches where water quality is good, and vegetation is diverse. Other key factors will include substrate and waterbody morphology. An assessment of the site's potential to support a diverse invertebrate assemblage and/or specialist species is based loosely on the presence of habitat features described in Kirby (2001). Where possible, a list of all invertebrate species encountered has been made.





### 3 PROJECT DETAILS

The site relates to a rear garden located at 99 Hightown Road in Ringwood. Ecological Surveys Ltd were commissioned by the clients to undertake a Preliminary Ecological Survey (PEA) of this site in relation to the construction of 1 residential dwelling.

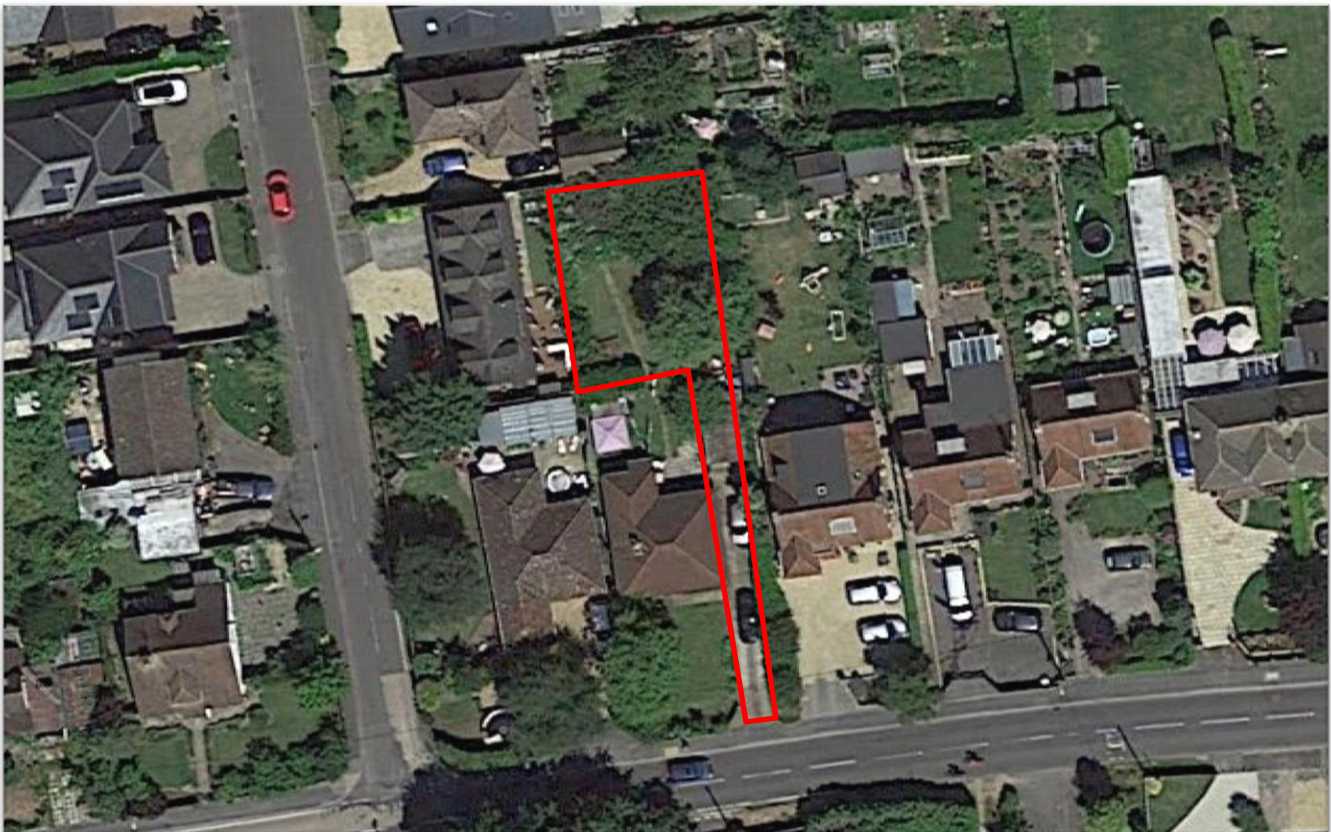
#### 3.1 Site Location Description

The site is located as indicated.

**Figure 1 Site Location**



**Figure 2: Surveyed Area**





### **3.2 Illustrated Proposal**

It is understood that the proposal is for the erection of 1 new residential dwelling in the rear garden of 99 Hightown Road. This will require the demolition of the existing garage in order to allow access to the rear plot.

#### **Figure 3 Illustrated Proposal**

An illustrated proposal has not been provided for inclusion within this report.





## 4 RESULTS

### 4.1 Introduction

This section provides details of the results of the Extended Phase 1 Ecological Survey of the named site. In light of the habitats present within the Site, a biological records search was not commissioned as it was not considered appropriate for the scale and probable impact of the proposed development.

### 4.2 Desk-based Assessment

#### 4.2.1 Internationally and Nationally Designated Sites

**Table 5:** Internationally and Nationally designated sites located within 2km of the site.

Site Name Distance & Direction	
Special Area of Conservation (SAC):	None found.
Special Protection Area (SPA):	Avon Valley
RAMSAR:	Avon Valley
Site of Special Scientific Interest (SSSI):	Avon Valley (Bickton to Christchurch) The New Forest River Avon System
National Nature Reserve (NNR):	None found.
Local Nature Reserve (LNR):	None found.

#### 4.2.2 Locally Designated Sites

**Table 6:** Non-statutory designated sites located within 2km of the site.

Designation & Site Name	
Important Plant Area	The New Forest IPA

#### 4.2.3 Priority Habitats

**Table 7:** UK BAP Priority Habitat Inventory habitats within 2km of the site.

Coastal and floodplain grazing marsh; Good quality semi-improved grassland; Lowland Dry Acid Grassland; Lowland meadows; Lowland Fens; Reedbeds; Ancient Woodland; Deciduous Woodland; Open Mosaic Habitat
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#### 4.2.4 Protected Species

**Table 8:** Records of protected and notable species within 2km of the site.

Species Group	Species
<b>Bats:</b>	Brown Long-Eared; Common Pipistrelle; Serotine; Soprano Pipistrelle; Daubenton's
<b>Other mammals:</b>	Eurasian Otter; European Water Vole; Hazel Dormouse; Eurasian Badger; Slow-worm
<b>Birds</b>	Osprey; Black-throated Diver; Peregrine; Merlin; Greenshank; Brambling; Tundra Swan; Hen Harrier; Ruff; Bittern; Scaup; Marsh Harrier; Cetti's Warbler; Black-necked Grebe; Goshawk;



	Red Kite; Black-tailed Godwit; Hobby; Green Sandpiper; Little Ringed Plover; Barn Owl; Kingfisher; Woodlark
<b>Reptiles:</b>	Smooth Snake; Grass Snake; Adder
<b>Flora</b>	Brown Galingale



### 4.3 Field Survey

The broad distribution of each habitat and its general composition is described below. The location of each surveyed area is shown in Figure 4 Habitat Map.

#### Habitat Map

Figure 4 Habitats Map





## 4.4 Habitats

### 4.4.1 Vegetated Garden (now cleared)



*Rear garden of 99 Hightown Road.*

The site is predominantly composed of a mix of short sward height amenity grassland and bare ground. A number of tree stumps were also found during the survey. Satellite imagery suggests the site to have previously contained a number of garden shrubs, with brush piles on site suggesting this to have been the case. The remaining amenity grassland is evidently regularly mown resulting in it being both botanically and structurally poor. Garden habitat on site is therefore considered to be of negligible ecological value. It is possible that birds could have nested within the garden shrubs prior to removal, but currently no evidence of or potential for protected species was recorded.

### 4.4.2 Garage



*Garage adjacent to the rear garden.*

A garden shed exists in the east of the site. This is of single skin construction with a pitched corrugated asbestos roof. No evidence of birds or roosting bats was noted within this structure. However, potential free flight access exists under eaves. Consequently, bird nests may be created in future nesting seasons. Whilst this free flight access could also allow bats ingress into the structure, windows ensure that the structure is bright internally and therefore unsuited for day roosting bats.



## **4.5 Protected Species**

### **4.5.1 Bats**

The structure surveyed on site was of single skin construction with a pitched asbestos roof. No evidence of bat roosting was noted within the structure. As the structure is of single skin construction, should roosting bats be present, evidence, such as bat droppings or feeding signs, would be visible. Consequently, with the absence of evidence or notable potential roosting features, it is considered that the structure has negligible potential to support roosting bats.

The site generally has low value for foraging or commuting bats being surrounded entirely by residential properties and gardens. Poor connectivity exists to higher value habitat in the surrounding landscape, further reducing the value of the site for bats. Nonetheless, it is likely that small numbers of bats will forage and navigate across the site, in particular between neighbouring gardens. At least 6 species of bat have been recorded within 2km.

### **4.5.2 Badger**

The surveyed area and adjacent habitats were inspected for field signs of badger activity. This includes badger setts, latrine sites, dung piles, well-used trails, prints and hairs. No evidence of badger was recorded.

### **4.5.3 Birds**

Garden shrubs as well as structures on site have (or had) the capacity to support nesting birds. Garden shrub habitat no longer exists on site. No active nests were noted, although a nest could newly be established in the garage in future nesting seasons. 23 species of protected or notable birds have been recorded with 2km of the site. Whilst it is possible that some of these species could be present on site on occasion, the habitats on site are of limited value for most. Most records are from the SPA & RAMSAR sites within 2km.

### **4.5.4 Hazel Dormouse**

Given the lack of woody habitat on site and lack of connectivity to known dormice sites, it is highly unlikely that hazel dormice are present on site.

### **4.5.5 Reptiles**

Grassland on site is regularly managed. This has resulted in a short sward height with little to no thatch present. Consequently, the cover of habitat is considered to be insufficient to support a population of reptiles. Habitat immediately surrounding the site is also largely unsuitable for reptiles, composing similar short mown residential gardens. Large numbers of reptiles have been recorded within 2km of the site, although this is predominantly confined to protected sites.



#### **4.5.6 Amphibians**

The site is not considered to offer sufficient habitat to support protected amphibian species. As with reptiles the grassland on site is short sward height with little to no thatch, having been regularly managed. Consequently, the cover of habitat is considered to be insufficient. Online mapping does not reveal the presence of any ponds within 250m.





## **5 IMPACTS**

### **5.1 Introduction**

This section is supported by the results of the Extended Phase 1 ecological survey and presents the likely impacts, *in the absence of any mitigating actions*, on protected and notable habitats and species associated with the proposed works. Only those features confirmed as present on site or considered to have from low to high potential occurrence on site have been taken forward for further assessment.

### **5.2 Designated Sites: SSSI/SPA/SAC/RAMSAR**

The Site lies within a SSSI Impact Risk Zone, but the type of development does not require Natural England to be consulted.

A '**Habitats Regulation Assessment' (HRA)** is unlikely to be required on this site.

### **5.3 Habitats**

#### **5.3.1 Vegetated Garden (now cleared)**

It is understood the current proposal will result in the loss of much of the garden habitat to make way for the proposed house / parking. The remaining area will be retained as the garden for the new dwelling. Whilst this habitat is of negligible ecological value has no potential for protected species, mitigation will be required to offset lost bird nesting habitat from the garden shrubs being cleared. Specifically, 1x Bird Brick is required to be installed within the new dwelling.

#### **5.3.2 Garage**

It is understood the current proposal will result in the demolition of the garage. This habitat is of negligible ecological value does not currently support protected species. Consequently, mitigation will not be required. Nonetheless, vigilance is required to ensure that no nesting birds are present at the time of demolition.

### **5.4 Protected Species**

#### **5.4.1 Bats**

The site has been assessed as capable of supporting occasional foraging and navigating bats. To ensure no negative impacts to bats, mitigation is required. An artificial lighting strategy should be put in place to minimise disturbance. In addition, a Bat Brick, installed within the new dwelling, will create additional roosting opportunities for bats in the local area.

#### **5.4.2 Birds**

Whilst no bird nests currently exist on site, mitigation is required to offset lost bird nesting habitat from the garden shrubs being cleared. Specifically, 1x Bird Brick is required to be installed within the new dwelling. In addition, vigilance is required to ensure that no nesting birds are present at the time of demolition.





## **6 FURTHER SURVEYS, MITIGATION & ENHANCEMENT**

### **6.1 Introduction**

This section provides details of recommendations considered necessary in order to ensure that ecological issues are considered fully. This includes recommendations for further ecological surveys to inform the assessment of impacts as well as mitigation, compensation or enhancement measures to avoid, lessen or offset the identified impacts to ecological features arising from the proposed works.

### **6.2 Mitigation**

This section provides general recommendations for mitigation and enhancement measures.

#### **6.2.1 Impact Avoidance During the Construction Phase**

All activities on site should bear in mind the potential for wildlife or the environment being harmed through the process of development from inception to end, with a proactive approach occurring for lawful protection of wildlife and the environment regarding use of materials, machines, chemicals, and human activity on site.

- Contractors must ensure that no harm can come to wildlife by maintaining the site efficiently, clearing away any material such as wire in which animals can become entangled and preventing access to toxic substances.
- Trenches or large excavations should be covered overnight to prevent wildlife such as badgers or hedgehogs falling in and failing to escape. If this is not possible then a strategically placed plank may provide a means of escape.
- Any large bore pipes should be capped at the end of the day to reduce the potential for badgers and other wildlife entering and becoming trapped.
- If there is a substantial delay before development commences, the site should be maintained in a way that would prevent wildlife colonising it and causing constraints in the future. Such management should include mowing grassland at least twice a year and preventing scrub encroachment.
- Piles of brush wood and or log piles should be carefully inspected for signs of wildlife prior to their removal. This is especially crucial during the period March – September (inclusive) as some species of bird choose such sites to construct their nests. Ideally removal of such features should be done outside of the nesting season. If this is not possible, it is recommended that these features are covered in such a way as to exclude / prevent birds and / or reptiles taking up residence. If nesting birds or reptiles are discovered, work must cease immediately with ecological advice sought.



### **6.2.2 Artificial Lighting Strategy**

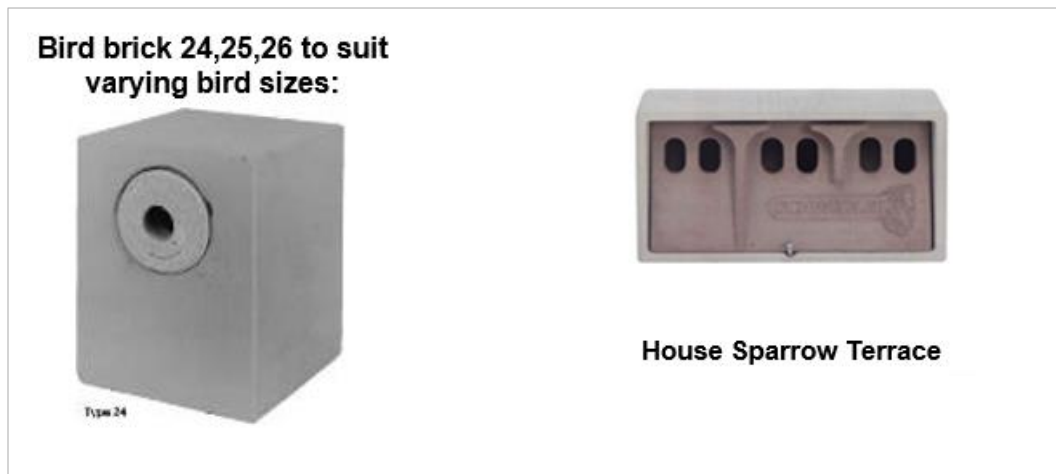
No external artificial lighting will be introduced to the site during the groundworks and construction phases of the development. External artificial lighting during the operational phase will comprise lights above external doors.

- LED and/or low-pressure sodium lamps with glass glazing should be utilised instead of mercury or metal halide lamps. This type of lighting can be utilised more directionally and will reduce the range of light wavelengths emitted thus significantly reducing the levels of UV light which may attract increased levels of invertebrate bat prey items.
- Avoid artificial lights shining on known or potential bat roosts, their access points and their flight paths.
- Light ONLY when and where it is needed for health and safety.
- Prevent light-spill and spread. Eliminate bare bulbs, upward pointing lights, keep light near to or below the horizontal. E.g. flat cut-off lanterns. Such light should be positioned to only illuminate the required areas, limiting light spill, both horizontally and vertically. Additionally, hoods, cowls, louvers and/or shields may be utilised to further direct any lighting.
- When external lighting is needed for safety reasons, dynamic lighting schemes that are switched on only when needed should be considered. Dynamic lighting schemes are usually triggered via motion sensors by a pedestrian, bicyclist or cars.
- Timer switch on any proposed outdoor lighting to facilitate dark periods.

### **6.2.3 Bird Nesting Provision**

One built in bird provision of a type similar to that illustrated is required to offset bird nesting habitat removal. In-built bird bricks provide a long-lasting solution. LPA approval of external mounted boxes is generally required.

- Only boxes of robust or permanent construction are suitable. Some account must be taken of the potential need to maintain and replace boxes after a number of years in use.
- Boxes/bricks should be positioned with orientation preferably between north and east with external positions of not less than 3m high to avoid cat predation and vandalism.
- Site nest boxes in locations that are accessible for maintenance, but away from bird feeders. Ideally boxes should be a discrete distance away from other nest boxes, except for house sparrows, as they like to nest in colonies.



### 6.3 Enhancement

#### 6.3.1 Bat Roosting Provision

One built in bat provision of a type similar to that illustrated is required.

- Bat tubes/boxes erected on properties offer potential bat roosts and augment the natural roosting opportunities. These tubes/boxes should be erected not less than 3m high and ideally 4m plus.
- Bat tubes must be built into the fabric of the building, ideally on the southern and western aspects, and not bolted on to the outside and are therefore only suited to structures, not trees. A choice of styles is sometimes available, and the most suitable style can be agreed with the LPA.
- Where bat-tubes are unsuited owing to the type of construction of the proposed structures, other bat boxes or specifically designed bat habitation of an equally durable condition may be substituted for bat-tubes (subject to LPA approval.)
- Where enhancement recommends bat tubes or bat boxes on structures, aspects of the Artificial Lighting Strategy must be followed to ensure artificial lighting does not shine on the access points /boxes or flight paths.





### 6.3.2 Solitary Bee Provision

One Solitary Bee Brick to be installed on the proposed residential unit. Each bee brick provides multiple cavities for solitary bees to lay their eggs. Bricks should ideally be built into south-facing, sunny walls, at between one and two metres above ground level and with nectar sources nearby.



**Solitary bee bricks**

### 6.3.3 Landscaping for the Benefit of Wildlife

Landscaping in sympathy with the needs of native wildlife is relevant to all important wildlife species. It helps to support birds by providing plant species which carry seeds, fruits, nuts, and/or support insects (nectar and pollen) upon which birds feed and supports bats by attracting insects to the garden. The list below is not exhaustive, neither is it prescriptive, and recommendations can be applied with discretion.

- The landscape architect/or appointed person should plant a variety of flowering plants, biased towards native and near-native species. Exotics are not required; however, a selection of exotics to extend the flowering season and potentially provide resources for specialist groups now and in the future, is becoming increasingly important owing to climatic changes, and should be given serious consideration by any with a view to protecting and sustaining present and future biodiversity. Plant holistically for biodiversity value: nectar rich plants/shrubs which yield fruits /nuts of benefit to a multitude of species.
- Where grass is planted, use a grass mix other than low amenity lawn grass. Plant mixes with diverse grass species support a wealth of insects when allowed to seed and flower before being cut back.
- Provide green corridors (hedges/trees/water features/lawns or mixed diversity species and beds) with attention to other neighbouring green spaces. The garden itself, when taken as one of many within the neighbourhood, will become part of a wider green corridor.
- Select a variety of plants that will produce foods in different seasons. For winter residents as well as migrants that return early in spring, plants that hold their fruits throughout the winter ("winter-persistent" plants) are a vital food source.
- Leave rough areas of vegetation and native trees and shrubs around the vicinity of any replacement building will also maintain nesting opportunities.
- Avoid pesticide and insecticide use.



- For garden areas: improve the area of green habitat within the garden wherever feasible and where paved spaces and balconies must be used also consider:
- Planters and raised beds
  - Courtyard trees, low level shrubs, hedges
  - Planting climbers and creepers.
- Provide shelter using low shrubs, thickets or hedges where birds can nest, perch, and escape from predators.
- Leave tree stumps, dead wood (where safe to do so) tree limbs, leaf piles and compost to encourage insects and worms for birds to feed on.
- Appropriate aftercare and management should ensure that these areas are maintained to give optimum benefit to wildlife.



## 7 CONCLUSIONS

The Extended Phase 1 Habitat Survey undertaken along with the desktop survey are considered to have collected enough information about the ecological condition of the site to have been able to adequately assess the impact of the proposed development. Further survey work is therefore not required.

A strategy of 'Avoidance' must be employed to significant harm to wildlife species and habitats is avoided through the design of the Site.

Where significant harm cannot be wholly or partially avoided, Mitigation measures have been set out to avoid and reduce the effects/impacts of the development on the important ecological features and the local environment as a whole. All measures should be included as a planning condition for the proposed development.

Ecological enhancement measures are required to improve the ecological condition of the development site (or an alternative site) after the development is complete. Ecological enhancement measures must, therefore, be over and above any avoidance, mitigation and compensation measures required to neutralise the impacts of the development on wildlife. These enhancements should result in a net ecological gain for the site and should be included as a planning condition for the proposed development.

Providing the recommendations within this report are adhered to, with the mitigation measures and enhancements agreed, there would appear to be no ecological constraints to prevent this development.

The local planning authority (LPA) should ensure that the mitigation measures, together with enhancement recommendations, are either 'conditioned' where appropriate, or that full permission is withheld pending the agreement of mitigation, compensation (where necessary) and enhancement measures.

It is the responsibility of all those involved with the proposed development works at this site to ensure that wildlife protection and nature conservation legislation is complied with throughout the lifespan of the development, at every stage. Although no current evidence of protected species was found on site it cannot be assumed that they are not present when the development work commences. Care should therefore be taken during all stages of the development and if any protected are discovered they must not be handled; works must stop immediately, and advice sought from a licensed ecologist.



## **8 MAP OF ECOLOGICAL CONSTRAINTS & OPPORTUNITIES**

It is not possible to map Mitigation / Enhancement measures at this stage as no plans have been provided for this report.





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## 9.1 Data Search Websites

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