



Ecological Impact Assessment

54 Warblington Road, Emsworth, PO10 7HG

On behalf of Mr and Mrs Copper

July 2024

Document reference: ECIA.24016.EL

Quality Assurance

The methods and recommendations in this report are based on the following:

- Chartered Institute of Ecology and Environmental Management (CIEEM) (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.2.
- CIEEM (2021) Good Practice Guidance for Habitats and Species.
- CIEEM (2017) Guidelines on Ecological Report Writing.
- CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition
- Bat Conservation Trust (BCT) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines 4th Edition

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1. Executive Summary

Site Details
54 Warblington Road, Emsworth PO10 7HG - Central grid reference: SU74340549
Scope of Works
Imprint Ecology was commissioned to undertake an Ecological Impact Assessment at a site which is required to inform a planning proposal for a replacement dwelling.
Key Ecological Constraints
Legal protection is afforded to particular habitats, species and designated sites. The legislation, and the habitats and species listed, vary between the different jurisdictions.
Baseline Ecological Conditions
- A site visit in June 2024 found that the main house had low suitability to support roosting bats. In accordance with best practice guidance, one dusk emergence survey was undertaken to establish the presence/likely absence of bats on site. - The dusk emergence survey was undertaken on 20th June 2024. No evidence of roosting bats was identified. - Suitability on site for nesting birds, hedgehogs and common reptiles was identified. - No other protected species surveys have been recommended.
Key Impacts and Mitigation Measures
- External lighting will be avoided, or kept to a minimum to reduce light spillage. - The removal of any trees, ornamental shrubs or hedgerow on site should be undertaken outside the breeding bird season, which runs from 1st March to 31st August. If this is not possible, the shrubs must be checked by hand immediately prior to removal. - Precautionary mitigation to protect hedgehogs and reptiles have been recommended.
Enhancement Recommendations
Enhancements for bats, birds and other wildlife on site in line with local and national planning policies.

2. Introduction

2.1 Background and Proposed Development

Imprint Ecology Limited was commissioned by Mr and Mrs Copper to undertake an Ecological Impact Assessment at 54 Warblington Road, Emsworth, PO10 7HG, hereafter referred to as ‘the site’. The report has been requested to accompany a planning application for a replacement dwelling.

2.2 Experience of Ecologists

Report written by Emily Luck (née Sabin), BSc (Hons) (*Wildlife Conservation*), MRSB, ACIEEM, Natural England Level 2 Class Survey Licence holder for Bats (2024-12034). Emily is a committee member of Sussex Bat Group and a bat rescuer, and has five years’ experience as an ecological consultant. She is pending approval for her recent “Full” membership application to CIEEM. Emily is also the Water Vole Officer at the People’s Trust for Endangered Species and coordinates the National Water Vole Monitoring Programme.

2.3 Purpose of this Ecological Impact Assessment Report

This report contains the findings of an ecological assessment of the building and surrounding habitat. The purpose of the report is as follows:

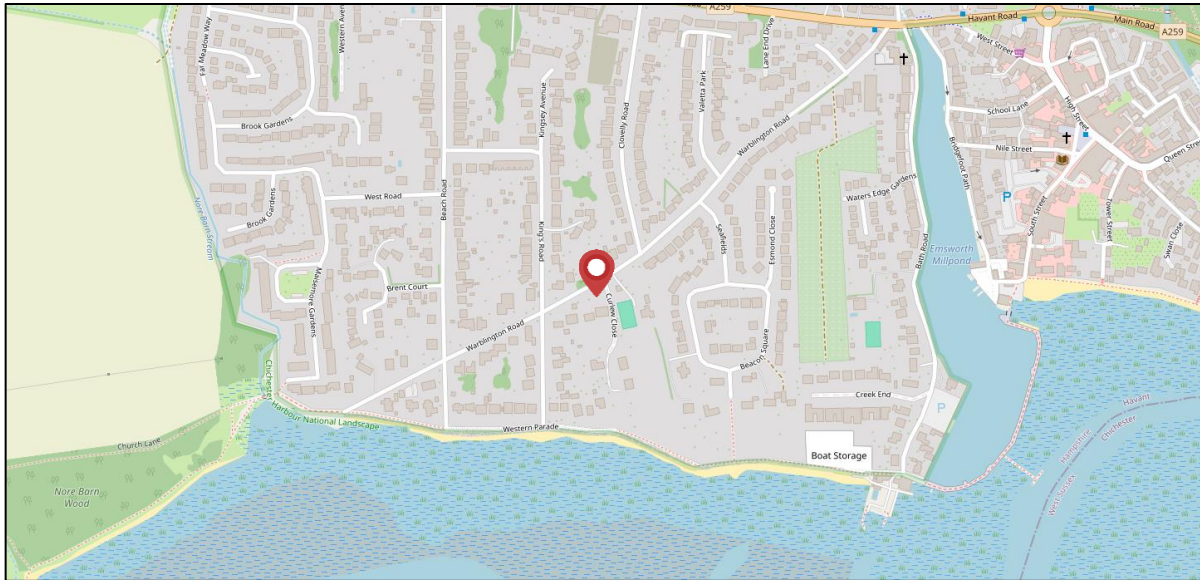
- To identify and describe all potentially significant ecological effects associated with the proposed development
- To set out the mitigation measures required to ensure compliance with nature conservation legislation and to address any potentially significant ecological effects
- To identify how mitigation measures will/could be secured
- To provide an assessment of the significance of any residual effects
- To identify appropriate enhancement measures
- To set out the requirements for any post-construction monitoring if required

This report is valid for a maximum of 24 months from the date of issue. Bat survey results required to inform a Natural England mitigation licence may only be valid for 12 months from the date of issue. Should there be delays, or the proposals or site alter in any way, a suitably qualified ecologist should be consulted to re-inspect the site and confirm that this report is still accurate.

2.4 Site Description

The site is located within a suburban setting in the town of Emsworth. The house is set within a large plot, comprising hardstanding, ornamental shrubs, modified grassland, and trees. The wider landscape is dominated by similar-sized houses and gardens, coastal habitats and modified grassland. See Figure 2.1 for the site location.

Figure 2.1 - Site Location. Map data ©OpenStreetMap contributors 2024.



3. Planning Policy and Relevant Legislation

3.1 National Planning Policy

The National Planning Policy Framework (2021) outlines the government's responsibility to minimise adverse impacts on biodiversity and bestow biodiversity net gains where possible. Paragraph 179 of the NPPF states that *"To protect and enhance biodiversity and geodiversity, plans should:/... promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."*

The NPPF is also complemented by the Circular 06/2005: Biodiversity and Geographical Conservation – Statutory Obligations and Their Impacts Within The Planning System (Office of the Deputy Prime Minister, 2005). Paragraph 99 states 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, otherwise all relevant material considerations may not have been addressed in making the decision."*

3.2 Local Planning Policy

The site is within the Chichester District; the proposals should be assessed against the Chichester District Local Plan – Key Policies 2014-2029. Policy 49 covers Biodiversity; the following criteria must be met for planning applications to be supported:

1. *The biodiversity value of the site is safeguarded;*
2. *Demonstrable harm to habitats or species which are protected or which are of importance to biodiversity is avoided or mitigated;*
3. *The proposal has incorporated features that enhance biodiversity as part of good design and sustainable development;*
4. *The proposal protects, manages and enhances the District's network of ecology, biodiversity and geological sites, including the international, national and local designated sites (statutory and non-statutory), priority habitats, wildlife corridors and stepping stones that connect them;*
5. *Any individual or cumulative adverse impacts on sites are avoided;*
6. *The benefits of development outweigh any adverse impact on the biodiversity on the site. Exceptions will only be made where no reasonable alternatives are available; and*

planning conditions and/or planning obligations may be imposed to mitigate or compensate for the harmful effects of the development.

3.3 Bats

British bats are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Additionally, all bat species are protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 which defines European Protected Species (EPS). Bats and their habitats receive additional protection via the Countryside and Rights of Way (CROW) Act, 2000, under the Bonn Convention (Agreement of Bats in Europe), and in Appendix II and III of the Bern Convention. Seven British bat species are listed under Section 41 of the NERC Act 2006.

This combined legislation means that it is a criminal offence to:

- Deliberately kill, injure or capture a bat
- Deliberately disturb bats, including in particular any disturbance which is likely to impair their ability to survive, to reproduce or to rear or nurture their young, or their ability to hibernate or migrate, or which is likely to affect significantly their local distribution or abundance
- Damage or destroy a breeding site or resting place of a bat
- Damage or destroy, or obstruct access to, any structure or place which any bat uses for shelter or protection
- Disturb bats while occupying a structure or place used for that purpose

A bat roost is a place or structure which a bat uses for shelter or protection. Bats are loyal to roosts, returning annually to the same place. Therefore, the legislation protects bat roosts regardless of whether or not bats are present at the time of survey or construction work.

If proposed development work is likely to destroy or disturb bats or a bat roost, Natural England would be consulted to obtain a European Protected Species Licence (EPSL). which would be subject to appropriate measures to safeguard bats. With suitable approved mitigation, exemptions can be granted from the protection afforded to bats under Regulation 39 by means of a EPSL.

The Natural Environment and Rural Communities Act (NERC Act) 2006, requires due consideration be given to biodiversity and its potential enhancement when considering proposed developments. The NERC Act defines a number of bat species as species of principal importance for consideration during planning.

4. Methods

4.1 Desk Study

The desk study task forms an important part of the Preliminary Ecological Appraisal (PEA)/Preliminary Bat Roost Assessment (PBRA) and informs any subsequent Ecological Impact Assessment (EclA). A search of online mapping resources was undertaken to identify locations of, and the site's connection with, any relevant ecological features such as designated sites, non-designated sites, priority/protected habitats, granted European Protected Species licences (EPSL), ponds within 500m, and non-statutory designated sites.

These mapping resources were:

- The [Multi-Agency Geographic Information for the Countryside](#) (MAGIC)
- Ordnance Survey (OS) “Explorer” mapping software on a 1:25,000 scale (1 cm = 250 m)
- Google Earth Pro satellite imagery
- Chichester District Council Interactive Map

Due to the small size of the site, small-scale/low impact nature of the proposed development, and ornamental habitats dominating the site, it was not considered proportionate to request protected species records from the local environmental record centre(s). This decision has been made in accordance with CIEEM's Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK (2020).

4.2 Preliminary Walkover Survey

A walkover survey was conducted on 12th June 2024 where habitats, land management type, flora and fauna were recorded at the proposed development site. Since this site is relatively small in scale and contains limited semi-natural habitat diversity, it was not considered necessary to undertake comprehensive Phase 1 Habitat Mapping of the site. All habitat types contained within the site, together with the dominant botanical species and indicators of important habitat types have simply been listed and described where identified.

4.3 Preliminary Bat Roost Assessment

A visual inspection of the site was undertaken during daylight hours on 12th June 2024 by ecologist Emily Sabin (at the time acting as an Accredited Agent under George Sayer's Natural England Level 2 Class Survey Licence for Bats: 2018-34434), commencing at 11:00hrs.

A 20,000 lumen LED torch, 8x42 binoculars, telescopic ladders, inspection mirror, and camera were used to search for evidence of bats and determine the potential for the building to support bats and other protected species.

The presence of potential roosting features (PRFs) and access/exit routes which bats could use to enter these features were surveyed. Evidence of use by bats was also looked for, such as scratch marks, urine stains, lack of cobwebbing, feeding remains e.g. moth wings, droppings, and actual bats. An assessment of potential commuting routes and surrounding habitat was also undertaken to determine their potential to support bats.

Bat PRFs are usually found in specific areas, such as joints, cracks, gaps and cavities within structures like mature trees and buildings. These were prioritised as areas to check for bat evidence. Roosting bat evidence is not easy to find and not always visible, so any potential roosting locations were also noted.

Following inspection, the building(s) were categorised as having the following suitability for bats: 'high', 'moderate', 'low', 'negligible' or 'none'. These categories are based on observations made during the survey and in the context of the descriptions laid out in Table 1.

Table 1 - Categorisation of bat roosting potential of structures (adapted from Collins, J. 2023.)

Suitability	Description
Confirmed bat roost or resting place	Presence of bats or evidence of bats.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats).

Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).

4.4 Bat Emergence Surveys

One dusk emergence survey was undertaken in accordance with guidelines outlined in Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, J. 2023).

Three surveyors were assigned a position to observe signs of bats emerging from their roosts (see Appendix 2: Bat Survey Results Plan). Surveys started 15 minutes before sunset and ended 1.5 hours after sunset.

Bats were identified using Peersonic RPA3, Petterson D240x and Echometer Touch 2 Pro full spectrum recording bat detectors. The surveys were led by Aidan Bird, Accredited Agent under a Natural England Level 2 bat licence. Assistant surveyors had multiple years' bat survey experience and have received training from a licenced bat ecologist. Survey conditions are shown in Table 2.

Table 2 – Bat dusk emergence survey conditions

Date	Sunset	Start	End	Weather - Start	Weather - End
20 June 2024	21:21	21:01	22:51	16.8°C, BF.3, Okt.1, RH76%	14.2°C, BF.2, Okt.2, RH80%

The surveyors were supported by five infrared camcorders used to cross-check bat activity during the survey. These were a Canon XA40s, Canon XA50, Canon XA60, Nightfox Whisker and a thermal camcorder, each supported by two high-powered infrared illuminators (Nighfox XB5 or XC5) to improve spatial and temporal coverage. Footage was subsequently reviewed at 1.0x speed and any findings added to the survey results. Identification of bat species and sonogram analysis was undertaken using Wildlife Acoustics Kaleidoscope.

4.5 Ecological Impact Assessment

The methodology for Ecological Impact Assessment (EclA) follows best practice guidelines set by CIEEM: 'Guidelines for Ecological Impact Assessment' (CIEEM, 2018). This includes identifying the baseline conditions on the site and rating the potential impacts of the development based on the sensitivity and importance of the ecological resource affected, combined with the magnitude, duration and scale of the impact (or change). This is assessed initially without mitigation measures,

and then assessed again after allowing for the proposed mitigation measures, providing the residual impacts. The assessment is separated into construction effects and longer-term effects. Each ecological feature within the site has been considered within a defined geographic context such as:

- International and European
- National
- Regional
- County
- District
- Local
- Site Level
- Negligible

The ecological impacts resulting from the proposals were then outlined according to a defined set of characteristics as defined within ‘Guidelines for Ecological Impact Assessment in the UK and Ireland’ (CIEEM, 2018). This assessment considers the residual impacts after mitigation measures have been accounted for, highlighting any significant effects. A significant effect is “an effect which either supports or undermines biodiversity conservation objectives for ‘important ecological features’ or for biodiversity in general”.

4.6 Limitations and Constraints

Preliminary assessments act like a ‘snapshot’ to record any flora or fauna that are present. It is therefore possible that some species may not have been present during the survey, but may be evident at other times of the year. For this reason, habitats are assessed for their potential to support some species, even where no direct evidence has been found. As discussed in Section 4.1, local protected species records from a LERC was not requested in line with CIEEM guidance for sites of this size and with predominantly ornamental habitats. It was considered that the lack of local biological records data would not significantly alter the assessments that have been made. The western elevation of the house was obscured from view during the dusk survey due to scaffolding and the neighbouring house. Infrared camera use was increased in order to crosscheck any results.

5. Baseline Conditions

5.1 Designated Sites

Chichester Harbour lies 230m south of the site and hosts a suite of national and international designations associated with the protection of coastal habitats and wildlife. Designated sites information is summarised in Table 3.

Table 2 - Designated sites within 1km of the site. Source: MAGIC.

Site Name	Designation	Proximity to site	Reason for designation
Chichester Harbour	Area of Outstanding Natural Beauty (AONB)	160m S	Chichester Harbour is a large estuarine basin. At low tide, extensive mud and sandflats are exposed, drained by channels which unite to make a common exit to the sea. The site is of particular significance for wintering wildfowl and waders and also breeding birds both within the harbour and in the surrounding permanent pasture fields and ancient woodlands. The harbour boasts a wide range of habitats, most of which are nationally and internationally important for supporting high numbers of migrating and breeding birds.
Chichester Harbour	SSSI	160m S	
Chichester and Langstone Harbours	Special Protection Area (SPA), Ramsar	160m S	
Solent Maritime	Special Area of Conservation (SAC)	160m S	
Brook Meadow	SSSI	880m NE	5-acre natural space with grassland, woodland and streams. Supports a population of water voles.

The site lies beyond 12.0km south from the Singleton and Cocking Tunnels SAC, SSSI, which is beyond the 12km wider conservation area.

The following protected/priority habitats lie within 2km of the site:

- Deciduous Woodland
- Coastal and Floodplain Grazing Marsh
- Chalk Stream
- Saline Lagoon
- Coastal Saltmarsh

- Mudflats

These habitats of Principal Importance are listed in Section 41 of the NERC Act, 2006. Section 40 places a duty on Local Planning Authorities to have due regard to biodiversity.

5.2 Habitats

The site consists of a large residential dwelling, gravel driveway, mature ornamental shrubs, trees, modified grassland which has been left to grow long. The grassland was dominated by perennial rye-grass *Lolium perenne*, with white clover *Trifolium repens*, selfheal *Prunella vulgaris*, daisy *Bellis perennis*, Greater Plantain *Plantago major*, bird's-foot trefoil *Lotus corniculatus*, and creeping buttercup *Ranunculus repens*. This habitat is considered to be widespread and offered low ecological value, although the recent growth of the long grasses would offer sheltering opportunities for small animals. The potential for the buildings to support protected species is discussed in section 5.3 below.

5.3 Protected Species Assessment

5.3.1 Amphibians

The desktop study showed that there have been no EPSLs for great crested newt (GCN) within 500m of the site. There are no ponds within 250m of the site and the site is set in a suburban landscape preventing natural movement of GCN and other amphibians to breeding ponds. The site's small, frequently mown lawn, hardstanding and isolated ornamental shrubs lack the habitat provision required to support GCN during their terrestrial or breeding phases. GCN are considered to be likely absent from the site and are not considered further.

5.3.2 Badger

No evidence of badger was recorded on site. There is no ancient woodland directly linked to the site and no sett building opportunities on site. Overall, the site is assessed to be of negligible value for badgers and they are not considered further.

5.3.3 Bats

The following European Protected Species Licence (EPSL) for bats has been granted within 2km of the site:

- 2019-44235-EPS-MIT, licence allowing the destruction of a soprano pipistrelle resting place, granted in 2020, 600m northeast of the site

Site Assessment

The dwelling at 54 Warblington Road is a two-storey brick building with rendered exterior walls and a slate-tiled hipped roof. There were smaller pitched roofs to the east and north including a slate-tiled single storey extension and a porch. The roof appeared in relatively good condition, with a limited number of lifted slate tiles across the northern and southern elevations that could allow access for roosting bats into crevices or the loft void behind.

There were timber soffits around the building. One soffit had a gap on the northern elevation of the building above the porch. On the single-storey pitched gabled extension on the eastern elevation there were fascia boards with gaps behind that could allow roosting opportunities for crevice-dwelling bats. Across the property the windows and doors were in good condition with no visible damage that bats could exploit.

Internally, there was a large loft void which was unlined as the tiles were exposed. It was insulated with loose fibre insulation and the timber rafters were exposed. There was daylight coming into the loft through the eaves and small gaps in the roof tiles through which daylight could be seen suggesting potential access points for bats.

In accordance with Table 1 and the guidance in Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition) (Collins J (ed.) (2023), the building was assessed as having low suitability for roosting bats. As per best practice guidance, one dusk emergence survey was carried out to establish the presence/likely absence of bats on site.

Dusk Emergence Surveys

The results of the survey are presented in Table 4.

Table 4: Dusk bat emergence survey results.

Survey Date	Emergence/Re-entry Results	Bat activity		
21/05/2024	No bats were recorded emerging from the building.	Species	First pass	Last pass
		Common pipistrelle	21:41	22:38
		Soprano pipistrelle	21:49	22:21
		Activity overview: A very low amount of bat activity recorded across the site, with nine common pipistrelle bats recorded across the site in total and four soprano pipistrelle		

		passes over the site. One common pipistrelle spent <1 minute foraging in the rear garden. No other bat species were detected. No bats were reliant on the site for foraging. Review of the infrared cameras and bat detector recordings confirmed no evidence of bats emerging from the building during the survey.
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The dusk emergence survey revealed that the house does not currently support any bat roosts.

Photo 1: Interior loft void



Photo 2: Interior loft void



Photo 3: South facing elevation



Photo 4: East facing elevation



Photo 5: East facing elevation



Photo 6: East facing elevation



Photo 7: North facing elevation



Photo 8: North facing porch



Photo 9: Driveway to north



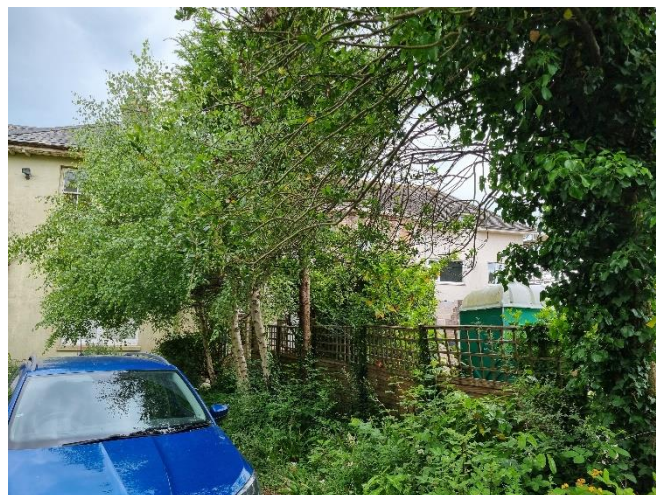
Photo 10: Side passage looking south



Photo 11: Rear garden to south



Photo 12: Driveway trees



5.3.4 Dormice

The absence of ancient woodland, scrub, and lack of mature species-rich native hedgerow within the site lowers the chances of dormice being present or affected by site works. Overall, the site is assessed to be of negligible value for dormice and they are not considered further.

5.3.5 Hedgehogs

Hedgehogs are locally abundant and widespread. They mainly feed on invertebrates such as earthworms, earwigs and beetles. The garden contains sheltered shrub borders and long areas of grass which may occasionally be used by hedgehogs for sheltering, commuting and foraging. Overall, the site is assessed to be of site value for hedgehogs.

5.3.6 Invertebrates

There were no habitats on site other than individual shrubs that would support a wide diversity of invertebrates. The shrub borders and trees may provide seasonal sheltering opportunities e.g. for stag beetle larvae. Overall the site is assessed to be of site value for invertebrates.

5.3.7 Nesting birds

A pigeon nest was seen within a holly tree on the driveway, with a pigeon nest-building during the survey. No evidence of nesting birds was found in the building but the soffits and eaves had suitability to support small common garden nesting birds. The trees on site had low suitability to support nesting birds. The habitats suitable to support nesting birds make up a very small percentage of suitable nesting habitat within the local landscape. The site has been assessed to be of site value for birds.

5.3.8 Reptiles

The hardstanding and buildings offer negligible value for reptiles. Individual reptiles like slow worms, grass snakes and common lizards may use the unmown lawn and ornamental shrub borders for sheltering, foraging and commuting. The site is assessed to be of site value for common reptiles.

5.3.9 Water vole and otter

No habitats on site are suitable for otters which require freshwater containing deep pools with abundant fish/crustacean food sources and secluded areas of vegetation to build holts. Water voles generally occupy waterbodies such as drainage ditches, ponds, lakes and wetlands, ideally with slow-flowing or still water and a soft bankside substrate for burrowing. There are no such habitats on or adjacent to the site. Otter and water vole are not considered further.

6. Impact Assessment and Mitigation

This section seeks to present all potential impacts of the proposed development on each relevant feature identified in the Baseline Conditions (section 5). This includes impacts associated with all phases of the proposed development including, but not limited to, construction, operation, restoration, de-commissioning, etc.

Impacts are clearly set out and justified and mitigation measures that can be secured to avoid significant impacts are clearly stated. Residual impacts have been calculated following coherence to mitigation measures.

In accordance with CIEEM (2018) guidelines, where Baseline Condition features have been evaluated at “site value”, no further assessment is deemed necessary, as the impact on these receptors is not likely to be of significance. However, mitigation measures may still be required to ensure compliance with current wildlife legislation and best practice guidelines.

6.1 Designated Sites

Potential impacts

Given the intervening distances, and the small scale of the proposals, any impacts upon local designated sites would be of extremely minor magnitude and are highly unlikely to occur. Indirect impacts from traffic pollution during construction is possible. This increase in pollution would be minimal.

Mitigation measures

None required.

Significance of residual effects

The impacts will be negligible and non-significant.

6.2 Habitats

Potential impacts

The proposals may increase the amount of dust, noise and light pollution onto the garden habitats on site. These impacts would be minimal and short-term.

Mitigation measures

- Trees will need to be protected against damage from vehicles and machinery during the construction phase. Mature trees around the edges of the site shall be retained and protected in accordance with BS5837:2012. Heras fencing or similar will be erected around trees to protect their root protection area (RPA) from damage from construction machinery and vehicles. An arboriculturist may advise on the specific RPAs for retained trees in order to establish protection zones.
- All construction will be undertaken in accordance with best practice advice with regards to control of dust, noise and emissions.
- Any demolition/destructive construction activities shall take care to be undertaken inward away from boundary vegetation.
- Any chemicals or fuel shall be stored appropriately and on existing hard surfaces.
- Any grassland, hedging or garden shrubs lost or damaged will be replaced post-construction with plants chosen from the Royal Horticultural Society's "Plants for Pollinators" [list](#).

Significance of residual effects

Provided that the mitigation measures are followed, the impacts of the proposed development on habitats will be negligible and non-significant.

6.3 Protected Species

6.3.1 Bats

Potential impacts

The dwelling offers low suitability for roosting bats. However, dusk emergence survey results show that the building is not currently supporting any roosts. Indirect impact to bats e.g. breaking of flightlines could occur in the absence of mitigation.

Mitigation measures

- Lighting - Artificial Light At Night (ALAN) adversely affects bats, invertebrates and other nocturnal animals (Bat Conservation Trust and the Institute of Lighting Professionals, 2023). ALAN creates a barrier for bats and can disturb their natural foraging and commuting patterns.

If exterior lighting is to be installed on site, this will be kept to a minimum and the following measures will be taken:

- No exterior lighting, including during construction, will be directed at bat boxes, vegetation, hedgerows, trees, waterbodies, and other key habitat features.
- Red spectrum lighting to be considered in place of white lighting. (Bats are more sensitive to white light compared to red light).
- Luminaires will face downwards and mounted horizontally, with no light output above 90° and no upward tilt.
- Security lighting will be set on motion sensors and set to a short timer. For residential purposes, a 1 or 2 minute timer is likely to be appropriate.
- All luminaires will lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used.
- LED luminaires will be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
- A warm white light source (2700Kelvin or lower) will be adopted to reduce blue light component.

Significance of residual effects

Provided that the mitigation measures are followed, the impacts of the proposed development on bats will be negligible.

6.3.2 Hedgehogs

Potential impacts

Construction phase activities have potential to inadvertently injure or kill hedgehogs. The site's gates and hedges had occasional gaps and openings which would allow for ease of movement of hedgehogs between gardens. Any enclosure of the residential garden with impenetrable close-board fencing could inhibit this movement.

Mitigation measures

- All excavations should be covered at night or when not in use to prevent hedgehogs from being trapped during construction.

- Any arisings from vegetation clearance should be removed carefully by hand to check for sheltering hedgehogs. They should be left to escape from the area on their own accord if disturbed.
- Broken pots, piles of patio slabs and rubble piles will be dismantled carefully and inspected with a torch prior to removal to check for sheltering, hibernating or nesting hedgehogs.

Significance of residual effects

Provided that the mitigation measures are followed, the impacts of the proposed development on hedgehogs will be negligible and non-significant.

6.3.3 Nesting Birds

Potential impacts

Birds and their nests, eggs or dependent young may be harmed, injured, or killed during any vegetation clearance in the small shrubs and trees.

Mitigation measures

The removal of any ornamental shrubs or trees on site should be undertaken outside the breeding bird season, which runs from 1st March to 31st August. If this is not possible, the plants must be checked by hand carefully and watched for signs of nesting birds by a suitably qualified ecologist immediately prior to removal. If a nest is found to be being built by adults, contain bird eggs, young chicks, or fledglings, it will be left alone and a 5m buffer will be in place until the young have fledged. Ideally, works will take place outside of the bird nesting season over the winter.

Significance of residual effects

Provided that the mitigation measures are followed, the impacts of the proposed development on nesting birds will be negligible and non-significant.

6.3.4 Reptiles

Potential impacts

Construction phase activities have potential to inadvertently injure or kill reptiles.

Mitigation measures

- Open pipework over 100mm in diameter must be checked they are empty and then closed off at the end of each working day.

- Any construction materials must be stored on hard surfaces or on pallets to elevate them off the ground to prevent reptiles and other small mammals sheltering underneath.
- Reptiles are usually active between late March and the end of October. Over winter, they hibernate in log piles, earth banks and compost heaps. Mowing and vegetation removal should be undertaken during the spring-autumn to avoid disturbing hibernating reptiles. Prior to mowing, walk through areas of long grass to disturb reptiles and encourage them to disperse naturally. Avoid strimming or cutting long patches to the ground straight away. Cutting can be done in two phases. On the first day, grasses should be cut or strimmed to a minimum height of 30cm. 24 hours later, the grass can be mown very short or strimmed to bare earth.
- The grass immediately surrounding the construction zone shall then be kept short to ensure reptiles would not be sheltering within or near to the construction zone. Longer patches of grass should be encouraged at the edges of the site during the construction period so as not to encourage reptiles and other small animals towards the impact zone.

Significance of residual effects

Provided that the mitigation measures are followed, the impacts of the proposed development on nesting birds will be negligible and non-significant.

7. Enhancements

In addition to mitigation, development proposals are expected to demonstrate an overall positive impact on the natural environment as set out in local and national planning policies.

The following ecological enhancements have been recommended to be included in this project's designs.

- One integrated bat box, external* bat box or tile with a suitable gap (or readymade 'bat tile') will be incorporated into the new house designs. Erected 3-5m above ground, facing between southwest and southeast is ideal, receiving sunlight for several hours a day.

Alternatively, a Schwegler 2F universal bat box could be installed 3-5m high on a mature tree on site. No artificial lighting will shine on any new bat roosting opportunities. If installed near eaves, ensure that the opening of the box is not located immediately above a window or door. See Figures 7.1 to 7.4 for examples.

Figure 7.1 – 'Chillon' Woodstone Bat Box



Figure 7.2 - [Tudor Bat Access Tile](#)



Figure 7.3 – Schwegler 2F universal bat box



Figure 7.4a (left) and 7.4b (right) – [BirdBrickHouses Integrated Bat Boxes](#)

(7.4b is suitable to install behind timber cladding)



- One bird box will be installed on site, on a tree or the new house building, facing between northwest and northeast. See Figures 7.5 to 7.8 for suitable examples of bird nesting opportunities.

Figure 7.5 – [Vivara Pro](#) Woodstone House
Sparrow Terrace External Bird Box



Figure 7.6 – [Vivara Pro External Bird Box](#)



Figure 7.7a (left) and 7.7b (right) –
[BirdBrickHouses Integrated](#)
[Sparrow Terrace Boxes](#)

(7.7b is suitable to install behind timber
cladding)



Figure 7.8 – Open-fronted bird box suitable
for wrens/robins can be installed within a
hedge behind foliage



**WoodStone/Woodcrete boxes are recommended for external habitat/nesting boxes, rather than timber boxes. They safeguard against attacks from predators and the durable material insulates the box which creates a more consistent internal temperature.*

- A small solid wooden hedgehog house (Figure 7.9) will be installed in a quiet corner of the garden, sheltered in a shrub or in a “wild” area of scrub or under a hedgerow. Information for providing a hedgehog friendly garden can be found [online here](#).

Figure 7.9 – Solid Wooden Hedgehog Box



- The southern rear garden is large and currently supports modified amenity grassland which has been left to grow long. Once the garden is brought back into regular management, it is expected that lawns will be mown for recreational purposes. To enhance

the garden for wildlife, wildflower borders or a mini wildflower meadow could be planted at the southernmost end of the garden which is least subject to disturbance. Emorsgate's Flowering Lawn Mixture EL1 can be used on bare earth or added to patches of existing lawn. Such meadow areas can undergo minimal management and can be aesthetically pleasing with mown meandering paths.

8. Conclusion

An Ecological Impact Assessment (EclA) was conducted at 54 Warblington Road, to support a planning proposal for a replacement dwelling.

The main house was found to have low suitability for roosting bats. Following best practice guidance, a dusk emergence survey was conducted on 20th June 2024, which confirmed that the building is currently not being used by roosting bats. No additional protected species surveys were deemed necessary. The site's habitats included buildings, hardstanding frequently mown lawns, ornamental shrubs, and trees.

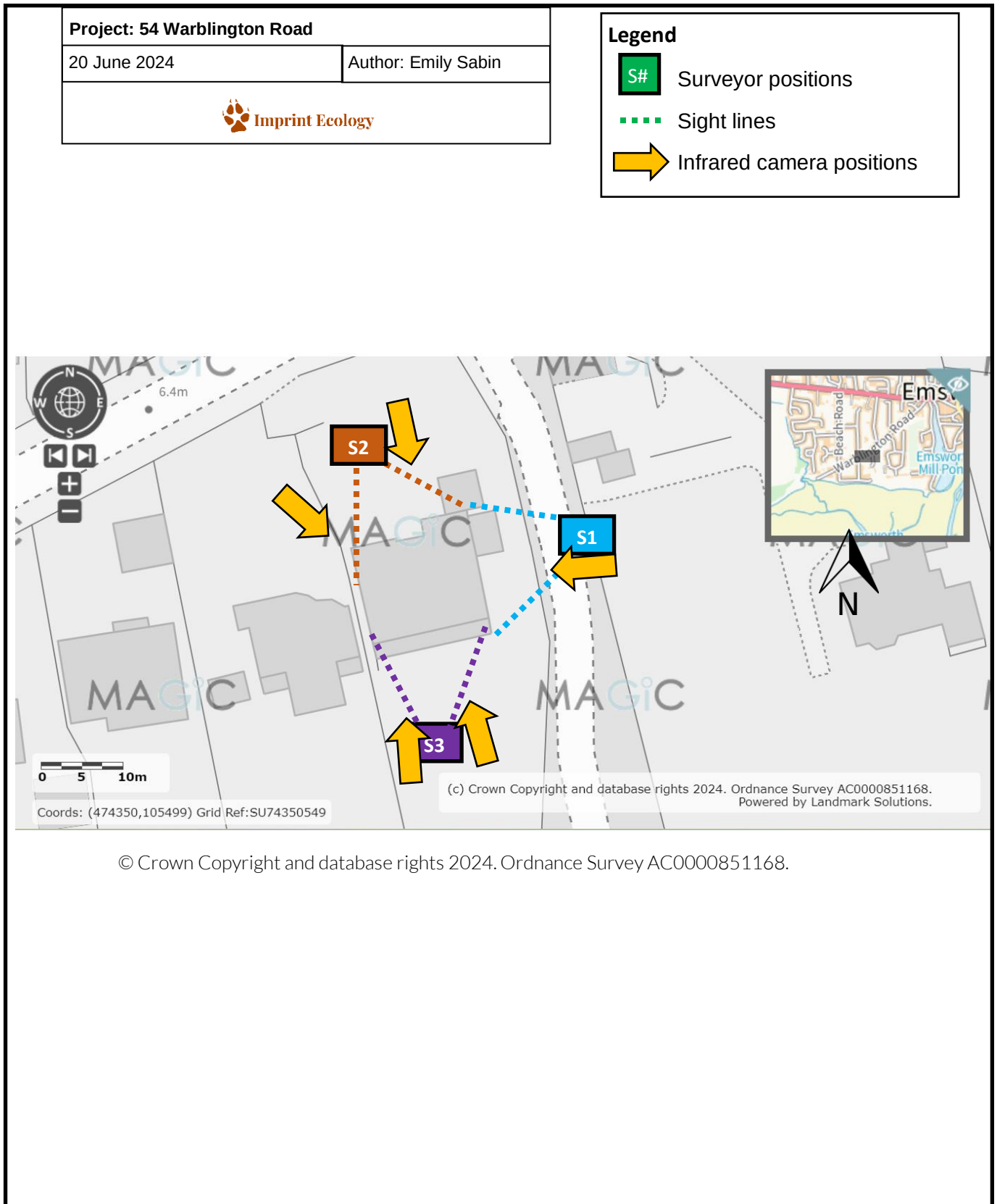
Key impacts and mitigation measures have been outlined to safeguard local wildlife from construction and long-term impacts of the proposals. These include minimising external lighting to reduce light spillage, conducting removal of ornamental shrubs or trees outside the breeding bird season (1st March to 31st August) or ensuring they are checked immediately prior to removal if within this period by an ecologist, and implementing precautionary mitigation for hedgehogs and reptiles.

Enhancement recommendations have also been provided to support local and national planning policies. With the recommended mitigation and enhancement measures, the proposed extensions and renovations can proceed with minimal impact on the ecological value of the site.

9. References

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Appendix 1: Bat Survey Plan



Appendix 2: Bat Survey Infrared/Thermal Camcorder Stills



