

Emsworth Surgery,
6 North Street,
Emsworth, Hampshire,
PO10 7DD

Bat Survey Report

April 2022

Hampshire Ecological Services Ltd
Consultant Ecologists

E: enquiries@hantsecology.co.uk

W: www.hantsecology.co.uk

T: 0771 456 8361

Bat Survey Report
Emsworth Surgery, 6 North Street, Emsworth, Hampshire, PO10 7DD
for
Cordage 14 Ltd

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Prepared by:	Rev 0	Rev 1	Rev 2	Rev 3	Rev 4	Rev 5	Rev 6
 CALUM COOPER Ecologist	12/08/20	19/11/20	23/11/20	26/02/21	14/01/22	-	
 CHLOE MOCKRIDGE Ecologist						04/04/22	13/04/22
Review & Technical QA by:							
 JOHN POLAND Principal Ecologist	13/08/20	20/11/20	23/11/20	01/03/21	14/01/22	05/04/22	13/04/22

This report represents sound industry practice; reports and recommends correctly, truthfully and objectively; is appropriate given the local site conditions, scope of works proposed and resources allocated to us by the client; and avoids invalid, biased, and exaggerated statements.

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EXECUTIVE SUMMARY

- 1) This report provides information from bat surveys carried out by Hampshire Ecological Services Ltd for Cordage 14 Ltd in connection with a proposal for works to convert the doctor's surgery to offices and the erection of a two storey building comprising a commercial unit, with associated parking and hard and soft landscaping at Emsworth Surgery, 6 North Street, Emsworth, Hampshire, PO10 7DD (approximate Ordnance Survey Grid Reference SU749058). The location of the site is shown in *Figures 1* and *2* and a plan of the site is shown in *Figure 3* (see *Section 6*).
- 2) The site is a doctor's surgery in a three-storey building with single-storey extensions to the west and south. Externally, the building has chimneys, soffits, lead-flashing, and dormers. Details of potential bat access points are illustrated in *Images 4.3.1.1 – 4.3.1.5*. No evidence of bats was found during the survey. Due to the small number of suitable roosting features on the building, and the minimal suitable foraging habitat nearby, this building has low bat roost suitability.
- 3) Two sheds are also present on site that have negligible bat roost suitability. Therefore, the works can proceed without further survey or constraints regarding bats (subject to any planning constraints).
- 4) There is limited suitable foraging habitat in the immediate vicinity of the site; a small garden area on-site with roadside verges nearby. The streets surrounding the site provide linear features for bats to use as commuting routes to areas of good habitat further afield such as Chichester Harbour.
- 5) No bats were seen emerging or re-entering the building during the dusk emergence survey on the 10th August 2020. Common pipistrelles were observed flying in the vicinity of the building, indicating the weather was suitable for bat activity. The full data from the survey is given in *Appendix C* and a plan showing the foraging and commuting bats is given in *Figure 4* in *Section 6*.
- 6) Following a request from Havant Borough Council, an update internal and external bat inspection of the building was conducted on the 31st March 2022. No evidence of bats was found and the bat roost suitability had not increased from the initial surveys. As such, no further surveys are considered necessary.
- 7) No bats were recorded emerging from the building and no evidence was found during either building survey. Therefore, a bat European Protected Species (EPS) licence or Bat Mitigation Class Licence (formerly Bat Low Impact Class Licence, if qualifying) site registration from Natural England is not required and the works can proceed without further survey or constraints regarding bats (subject to any planning constraints).

- 8) Changes in lighting can affect foraging and roosting bats. Therefore, no works should take place in the hours of darkness or under artificial lighting. In addition, no lighting should be directed onto retained vegetation, and security lights should operate on a timer, to avoid any negative impact on bats. Any lighting installed should avoid spillage of greater than 0.1 lux (typical moonlight/ cloudy sky) onto retained vegetation. However, it is in a highly lit area and as such this may not be possible due to existing light spill. If this is the case any new lighting should not increase the level currently experiment and, if at all possible, should reduce any light spill due to the type of lighting used and the use of protection such as hoods and cowls. The use of non-UV LED lighting (preferably using warm spectrum wavelengths) is strongly recommended to avoid the most deleterious impacts of lighting on biodiversity and bats in particular.
- 9) All the trees on site were identified as having negligible bat roost suitability. Therefore, no further surveys are proposed.
- 10) One non-native, invasive plant species listed on *Schedule 9* of the *Wildlife and Countryside Act 1981* (as amended) was recorded on the site. This is *Crocsmia ×crocsmiiflora* (Montbretia), which is located in the courtyard. It is an offence under the *Wildlife and Countryside Act 1981* (as amended) to cause any species listed on *Schedule 9* to spread in the wild. Therefore, the plants should be removed to avoid spreading to the remainder of the site or off-site during site works, especially as they are in the area of work. Information of the removal of the *Schedule 9* species (should the owners need to do so) is given in *Section 5.6.2*.
- 11) The building provides limited suitable habitat for nesting birds. The destruction of active bird nests is prohibited under the *Wildlife and Countryside Act 1981* (as amended). All demolition works (including the removal of roof tiles) should take place outside the breeding bird season (which is late February to August inclusive). If this is not possible, and the roof or sections of the building have to be removed during the nesting season, the building should be checked for nests (by an ecologist) immediately prior to works. Any active nests on the building must be retained and work must be delayed in that area until the young have fledged and left the nest.
- 12) It is a requirement under national planning policy to provide ecological enhancements to sites requiring planning permission. However, as the site did not have significant bat activity (possibly due to lighting), it is proposed that the enhancements will be in the form of bird boxes and bee bricks built into the exterior walls of the new building and mounted on the retained building. The site will be enhanced for birds as follows:
 - two multi-chamber boxes suitable for house sparrows, such as a Vivara Pro WoodStone House Sparrow Nest Box or similar;
 - two or more swift boxes, such as Ibstock Eco-habitat or similar, to either incorporate into the build structure or mounted on the buildings under the eaves; and
 - at least one bee brick should be installed in each of the buildings.
- 13) This survey data is valid for a maximum of 12 months. Bats frequently move around and adopt new roosting sites, therefore if more than 12 months elapses it may be advisable to conduct

further survey work to obtain up-to-date information, thereby ensuring protected species compliance.

- 14) According to the *Multi-Agency Geographic Information for the Countryside* website (www.magic.gov.uk), the site is neither designated nor immediately adjacent to any designated areas of nature conservation. However, there are designated sites nearby (see *Table 4.1.1.1* in *Section 4.1.1*). None of these will be directly affected by this small-scale development and all links will be maintained.
- 15) As a result of its proximity to the SAC and SPA, the impacts of this small-scale development must be considered. The works to convert the main building into a office and build a new commercial unit on the site could increase the number of people using the site. Therefore, there could be an increase in the recreational pressure and potentially pollution, on these internationally designated sites. As a result, a financial contribution may be sought by the local planning authority to help offset these impacts.
- 16) In addition, there has been one bat European Protected Species (EPS) licences granted within 2km of the site, which is c.90m west of the site. Due to their close proximity, it is likely that any bats using the site *e.g.* for commuting and foraging are part of the same meta-population. However, due to the small-scale of the proposed works, any impacts are considered to be minimal.

INTRODUCTION

2.1 General

This report provides information from bat surveys carried out by Hampshire Ecological Services Ltd for Cordage 14 Ltd in connection with a proposal for works to convert the doctor's surgery (E) to offices (E) plus the erection of a two storey building comprising a commercial unit (E) following the demolition of the existing single storey extension, with associated parking and hard and soft landscaping, including provision of one additional parking space at Emsworth Surgery, 6 North Street, Emsworth, Hampshire, PO10 7DD (approximate Ordnance Survey Grid Reference SU749058). The location of the site is shown in *Figures 1 and 2 in Section 6*.

2.2 Site description

The site is a doctor's surgery in a three-storey building with single-storey extensions. The building surveyed is shown on the plan in *Figure 3 in Section 6*.

The site is south-west of the junction of High Street and Havant Road (A259), near the centre of Emsworth town. The immediate surroundings consist of residential housing and commercial properties, with the main road to the north and the High Street to the south-east. Slipper Mill Pond (tidal pond) is nearby (to the west). In the wider landscape Emsworth surrounds the site in all directions. To the south is Chichester Harbour (Emsworth Channel); to the west is the town of Havant; to the east is the village of Southbourne; and Westbourne is to the north. In addition, the A27 dual carriageway is to the north and the River Ems flows c.200m east of the site.

2.3 Proposed activities

This survey was carried out in connection with a proposal to carry out the following works:

- convert the retained part of the doctor's surgery building into offices;
- demolish the existing single storey extensions;
- build a new single-storey extension on the north-west corner;
- erect a two storey building comprising of a commercial unit for a private clinic;
- landscape the garden; and
- create associated parking areas.

2.4 Current planning status

Planning permission is being applied for at this site.

2.5 Objectives of the survey and report

The surveys by Hampshire Ecological Services Ltd included an external inspection of the building to identify bat roost suitability and one dusk emergence survey. The aim was to identify if bats were present or likely to use the site for roosting.

The survey and the report writing were carried out in accordance with *Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edition* (Collins, 2016). Any deviations from the guidelines are justified in the relevant sections.

Additionally, all ecological surveys should be completed in line with Natural England's *Standing Advice for Local Authorities*

(<http://www.naturalengland.org.uk/ourwork/planningdevelopment/spatialplanning/standingadvice/advice.aspx>), which states:

- Natural England will not comment on applications that are submitted without the relevant protected species surveys if there are no other issues (i.e. in relation to SSSIs or landscape).
- Natural England will not comment on scoping surveys that recommend further surveys where these have not been undertaken and submitted with the scoping reports.

2.6 Structure of this report

This report is structured as follows:

- *Section 1* contains the executive summary;
- *Section 2* contains an introduction;
- *Section 3* describes the survey methods;
- *Section 4* describes the results;
- *Section 5* evaluates the findings;
- *Section 6* contains the figures including:
 - *Figure 1* gives aerial photographs showing the site location;
 - *Figure 2* gives an Ordnance Survey map showing the location of the site;
 - *Figure 3* gives a site plan showing all ecological constraints; and
 - *Figure 4* illustrates the bat activity recorded during the dusk emergence survey.
- *Section 7* gives photographs of the site;
- *Section 8* lists the references;
- *Appendix A* gives information on relevant legislation;
- *Appendix B* gives information on bat ecology; and
- *Appendix C* gives the data from the dusk emergence survey.

3 **METHODS**

3.1 **Desk study**

The *Multi-Agency Geographic Information for the Countryside* website (www.magic.gov.uk) was used to search for designated sites on or adjacent to the site including Local Nature Reserves (LNRs), National Nature Reserves (NNRs), Sites of Special Scientific Interest (SSSIs), Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites. The search area was 5km for SAC and SPA sites and 2km for LNRs, NNRs, Ramsar sites and SSSIs, as specified in Hampshire's *Biodiversity Checklist*. The search area is also 500m for Sites of Importance to Nature Conservation (SINCs) and ancient semi-natural and ancient replanted woodlands.

In addition, the *Multi-Agency Geographic Information for the Countryside* website (www.magic.gov.uk) was used to search for granted European Protected Species (EPS) licences in relation to bats within 2km of the site.

A data search from the Hampshire Biodiversity Information Centre (HBIC) has not been commissioned in relation to this site.

3.2 **Field survey**

3.2.1 *Date, times and weather*

An external inspection of the building was conducted during daylight on the 10th August 2020. This was followed immediately by one dusk emergence survey. The weather conditions during the survey were warm (23.1°C), dry, clear and calm (Beaufort scale 0).

The emergence survey commenced fifteen minutes before sunset and continued for an hour and a half after sunset (long after bats would have exited). The weather was suitable for bat emergence and foraging during all the surveys.

An update internal and external inspection of the building was conducted during daylight on the 31st March 2022. The weather conditions during the survey were 7°C, dry with 40% cloud cover and a moderate breeze (Beaufort scale 3).

3.2.2 *Personnel*

The original assessment from client-supplied photos was carried out by John Poland CEnv MCIEEM CBiol MSB, who is a full member of the CIEEM, a Chartered Environmentalist (CEnv), a Chartered Biologist (CBiol) and multi-species licence holder with over 20 years of experience in ecological consultancy. The subsequent external inspection and emergence survey was led by Calum Cooper ACIEEM who has over five years of experience in ecological consultancy and is experienced and well trained in surveying buildings for bats, evidence of bats and assessing roost suitability with licenced

ecologists as well as designing and supervising licensed mitigation works. He was assisted by Darla Brown. All surveyors are experienced in carrying out bat surveys using detectors.

The update survey was carried out by Chloe Mockridge MSc who is a member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and has over four years of post-qualification experience in ecological consultancy. She is experienced in undertaking roost surveys and accredited under level 2 class bat licence 2015-17894-CLS-CLS. She was assisted by Darla Brown.

This report was reviewed by John Poland CEnv MCIEEM CBiol MSB, who is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM), a Chartered Environmentalist (CEnv), a Chartered Biologist (CBiol) and multi-species licence holder with 20 years of experience in ecological consultancy and Victoria Russell MCIEEM who is also a full member of the CIEEM and multi-species licence holder with over 23 years of experience in ecological consultancy.

All staff adhere to the Chartered Institute of Ecology and Environmental Management's (CIEEM) *Code of Professional Conduct*.

3.2.3 *Assessment of current bat roost suitability*

Because bats are crevice-dwelling mammals it is often difficult to thoroughly inspect buildings for bats and evidence of bats without a destructive search, which is not generally practical or acceptable. Examples are where bats roost between the roofing felt and tiles or slates, around window frames and behind bargeboards. These areas cannot be inspected, but a surveyor would know that bats might roost here because there are places where bats could gain entry. A pipistrelle bat is small enough to fit into a match box and can roost in gaps just 14-20mm wide.

The building was assessed for its **bat roost suitability** according to the following factors that influence the likelihood of bat roosting:

- Surrounding habitat: whether there are potential flight-lines and bat foraging areas nearby.
- Construction detail: the type and construction of architectural features such as attics, bargeboards, soffit boxes, lead-flashing, cavity walls and hanging tiles that could be used by roosting bats. Some construction details and materials are more favourable to bat occupation than others.
- Building condition: whether the building has no roof or has a sound roof without any potential bat access points.
- Internal conditions: bats favour sheltered locations with a stable temperature regime, protection from the elements and little wind/light/rain penetration.
- Potential bat access points: whether there is flight and crawl access.
- Potential roosting locations: the presence of bat-accessible voids, cracks and crevices.

The risk of bat roosts being present will be lower where structures have:

- Urban setting with little greenspace.

- Heavy disturbance.
- Small, cluttered roof void (particularly for brown long-eared bats).
- Modern construction with few gaps or crevices that bats can fly or crawl through (although pipistrelles may still be present).
- Prefabricated steel or sheet materials.
- Active industrial premises.

The above list provides generic criteria and there are exceptions to consider. For example, pipistrelle roost sites are often found in modern housing estates and therefore the absence of bats from such locations should not always be assumed.

Some information on bat ecology is included in *Appendix B*.

3.2.4 *Systematic inspection for bats or evidence of bats*

The building was assessed for its suitability to support roosting bats using the following inspection equipment: high-quality 10x42 binoculars and a 1,000,000 candlepower Clulite™ CB2 torch. Binoculars were employed to view higher areas such as potential access points on the outside of the building. A description of the building was recorded on a survey sheet and digital photographs were taken as a permanent record.

Visual, systematic examinations were made for bats and evidence of bats in the building, both internally and externally, of the following:

- cracks, crevices and sheltered voids;
- external features such as cracks and holes in the walls;
- wall and door surfaces;
- window and door frames; and
- wall bases.

Evidence of roosting bats includes droppings, feeding remains and dead bats, but also staining from urine and fur-oils, scratch marks, odour, the presence of bat-fly (Nycteribiid) pupal cases, and in some cases, the absence of cobwebs.

Bat droppings can prove beyond doubt that bats use a building and can help to identify roosting locations because piles often accumulate beneath roosting sites or entrance points. The location, size, shape, texture and colour of the droppings can be used to aid species identification. DNA analysis of droppings is also possible and samples are taken where necessary. The number and condition (age) of droppings can indicate the size of the roost and when it was last used.

Following the external inspection, the building was assigned a level of suitability for being used by roosting bats. This was based on the criteria in *Table 3.2.4.1* (Collins, 2016).

Table 3.2.4.1. Bat Roost Suitability.

Suitability	Description of roosting habitats	Description of commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats	Negligible habitat features on site likely to be used by commuting or foraging bats
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. 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>i.e.</i> unlikely to be suitable for maternity or hibernation).	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream, but isolated, <i>i.e.</i> not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland) or a patch of scrub.
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)	Continuous habitat connected to the wider landscape that could be used by bats for commuting, such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
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.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. The site is close to and connected to known roosts.

3.2.5 *Dusk emergence survey*

The dusk emergence survey followed standard survey protocol in *Bat Surveys – Good Practice Guidelines*, 3rd edition (Collins, 2016).

The dusk emergence survey commenced fifteen minutes before sunset and continued for an hour and a half after sunset. The weather was suitable for bat emergence and foraging on all occasions. See Sections 3.2.1. and 3.2.2. for dates, time, weather and personnel carrying out the survey.

The surveyors were located with good views of the potential bat access points identified during the initial assessment. The timing of the visits, from early evening until after dark and early morning until light, was aimed at detecting active bats in the vicinity. When it was too dark for visual observation, electronic bat detectors were used to listen for the ultrasonic sounds produced by bats either flying in the vicinity or emerging from the building.

The surveyors recorded all bat activity encountered, but particular attention was focused on any bats emerging or re-entering. The results were documented by noting the time, bat species and behaviour (*e.g.* commuting, foraging, social interaction *etc.*). The surveyors were in constant contact via hand-held radios so that information could be easily exchanged regarding bat activity. The time between all surveyors' devices was synchronised so time data was recorded precisely.

Bat detectors are used so that surveyors can identify most bat species in the field, using the heterodyne output in combination with bat shape, flight pattern and behaviour. Surveyors were equipped with BatBox Duet™ detectors connected to solid-state recorders (Edirol Roland-05) were employed to record bat calls for later sonogram analysis using BatSound™ computer software (should it be required). Frequency-division, whereby the ultrasound is divided by 10 into an audible range, has a considerable advantage over time-expansion for survey work as it allows recordings to be taken in real time. This ensures that all bat activity is recorded.

Queried recordings were later replayed and analysed through BatSound™ software to ensure that any activity accidentally missed during the survey was recorded and times and location calculated. The species of bat was confirmed at this stage where possible. Bat detector surveys provide one of the most effective methods of identifying bat species and activity patterns. However, it is not always possible to identify bats down to species level, even with subsequent sound analysis.

4 RESULTS

4.1 Desk study

4.1.1 Designated sites

According to the *Multi-Agency Geographic Information for the Countryside* website (www.magic.gov.uk), the site is neither designated nor immediately adjacent to any designated areas of nature conservation. However, there are three internationally statutory designated sites within 5km of the site, and one nationally and two county designated sites within 2km of the site. In addition, there is one Site of Importance for Nature Conservation (SINCs) within 500m of the site. These are listed in *Table 4.1.1.1*.

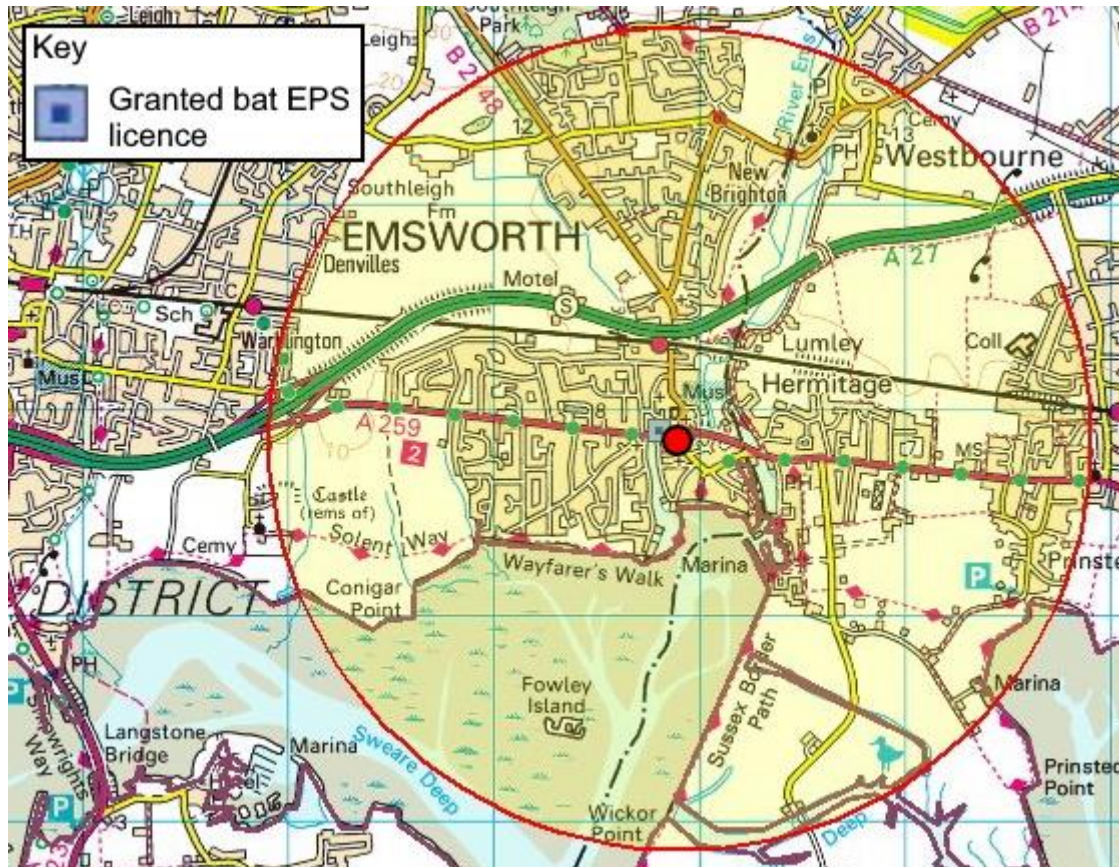
Table 4.1.1.1. Statutory designated sites; non-statutory designated sites and ancient semi-natural and ancient replanted woodlands within the designated search areas of the site.

Level of designation	Designation	Name	Distance & direction from site
International	SPA	Chichester and Langstone Harbours	c.300m south (at closest point)
	Ramsar	Chichester and Langstone Harbours	c.300m south (at closest point)
	SAC	Solent Maritime	c.300m south (at closest point)
National	SSSI	Chichester Harbour	c.300m south (at closest point)
	NNR	-	-
County	LNR	Brook Meadow (Emsworth)	c.150m north-east
		Eames Farm	c.925m south-east
Local	SINC	Lumley Meadows	c.300m north-east
	Ancient woodland	-	-

4.1.2 Bats

According to the *Multi-Agency Geographic Information for the Countryside* website (www.magic.gov.uk), there has been one bat European Protected Species (EPS) licence granted within 2km of the site. This is for a resting place for soprano pipistrelle (c.90m west), which was granted 1st January 2020.

Figure 4.1.2.1. Location of sites with granted EPS licences within 2km of the site. The site location is shown by a red dot.



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4.2 Survey of buildings

The construction details and photographs of the building are summarised in *Table 4.2.1*. Additional photographs showing the immediate vicinity are given in *Section 7*.

Two sheds are also present on site however, due to the construction and dilapidated state the sheds have negligible bat roost suitability.

Table 4.2.1. Summary of the building's construction details.

Type/Name	Emsworth Surgery			
Description	A three-storey brick building with pitched and hipped tile roofs and flat-roof sections.			
No. of storeys	1 & 3			
Roof type	Pitched, hipped and flat			
Roof cladding	Tile, slate & bitumen felt			
Ridge	Tile			
Wall type	Brick			
Exterior	Soffits, chimneys, lead-flashing			
Photos	North elevation 	East elevation 	South elevation 	West elevation 
Building dimensions	c.335m ²			
Roof void	1	2	3	4
Roof void description	Uncluttered with the floor lined with fibreglass insulation	Partially cluttered with trusses and a watertank. The floor is lined with fibreglass insulation.	Partially cluttered with structural beams. The floor is lined with fibreglass insulation.	Partially cluttered with structural beams. The floor is lined with fibreglass insulation.

Frame	Wooden beams with ridge beam			
Roof lining	None	Bitumen	Bitumen	Bitumen
Roof void dimensions	c.4m wide x c.4m long 	c.5.5m wide x c.9m long 	c.6m wide x c.4.5m long 	c.4m wide x c.9.5m long 
Roof void height	c.1.5m	c.2m	c.2m	c.1m

Potential roosting locations	Against the ridge beam and between the roof tiles and the internal lining.  The bitumen roof lining has ripped or sagged in places and could allow bats to access the roof void.  Within the brickwork where there is missing cement. 
Bat evidence	None
Bat suitability	Low

4.3 *External potential bat access points*

The majority of the roof appears well-sealed and in good condition. However, there are a small number of potential bat access points into the single-storey extensions. The locations and details of potential bat access points are illustrated in *Images 4.3.1 – 4.3.3*.

Image 4.3.1. Location of potential bat access points and potential roost locations on the north elevation of the building.



Image 4.3.1. Location of potential bat access points and potential roost locations on the north elevation of the single-storey extension.



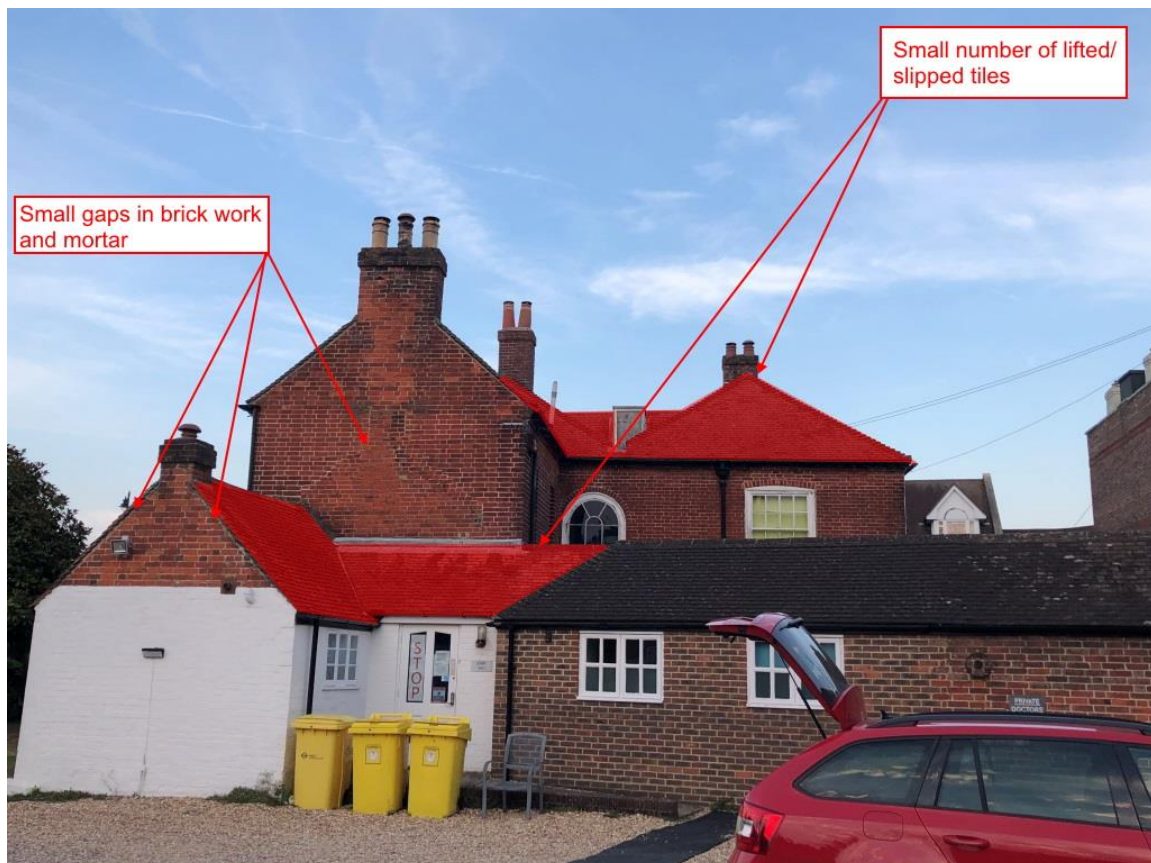
Image 4.3.3 Location of potential bat access points and potential roost locations on the east elevation of the building.



Image 4.3.4 Location of potential bat access points and potential roost locations on the south elevation of the building and within the courtyard.



Image 4.3.5 Location of potential bat access points and potential roost locations on the west elevation of the building.



Due to the presence of these potential access points, and suitable roosting locations, the building is classed as having low suitability to be used by roosting bats, following the criteria provided in *Table 3.2.4.1*.

4.4 *Bat roost suitability of trees*

All the trees on site were identified as having negligible bat roost suitability due to being immature.

4.5 *Commuting and foraging habitat*

There is limited suitable foraging habitat in the immediate vicinity of the site; a small garden area on site with roadside verges nearby. The streets surrounding the site provide linear features for bats to use as commuting routes, to areas of good habitat further afield, such as Chichester Harbour.

Bats follow linear landscape features such as lines of trees, hedges, buildings and waterways in order to commute from their roost sites to their feeding grounds. Likewise they use these features to navigate between feeding areas and alternative roosts.

4.6 *Evidence of bats*

No bats or evidence of bats was observed in 2021 or 2022.

4.7 *Dusk emergence surveys*

No bats were observed emerging from or re-entering the building.

Common pipistrelles were observed flying in the vicinity of the building, indicating the weather was suitable for bat activity. The full data from the dusk emergence survey is given in *Appendix C* and a plan illustrating the bat activity during the survey is given in *Figure 4* in *Section 6*.

4.8 *Other ecological constraints*

4.8.1 *Schedule 9 species*

One non-native, invasive plant species listed on *Schedule 9* of the *Wildlife and Countryside Act 1981* (as amended) was recorded on the site. This is *Crocoshia × crocosmiiflora* (Montbretia), which is located in the courtyard.

4.8.2 *Birds*

One old birds' nest and droppings was observed in the eaves along by the rooms in the roof adjoining to roof void 2.

5 **INTERPRETATION AND EVALUATION**

5.1 **Constraints on survey data**

5.1.1 *Constraints on survey data*

Detailed searches often result in the discovery of evidence of bats. However, although such surveys can identify the presence of bats it is more difficult to prove absence due to the crevice-dwelling nature of these elusive mammals. Bat droppings may be missed where there is debris to obscure them (and also, very old droppings generally crumble away to dust).

No access to the internal spaces of the doctor's surgery was possible at the time of the survey in 2021 due to the Covid-19 risk, therefore an external inspection only was carried out. The enclosed courtyard within the single-storey extension at the rear of the surgery could not be left accessible due to concerns of allowing opportunities for anti-social behavior.

During the update survey in 2022, the single-storey west elevation roof void could not be accessed as part of the building was locked and no hatch could be found however this is not thought to change the conclusions of the assessment.

It is often difficult to thoroughly inspect buildings for bats and evidence of bats without a destructive search, which is not generally legal, practical or acceptable.

5.1.2 *Constraints on the enhancement measures*

There is a limit to the amount of enhancement measures that are possible (and reasonable) on such a urban site. In addition, there are no trees on site that would be suitable for bird and/ or bat boxes to be attached.

As the building does not support a bat roost, no mitigation or compensation measures are required.

5.2 **Potential impacts of the proposed development on bat roosts**

5.2.1 *General*

According to the *Multi-Agency Geographic Information for the Countryside* website (www.magic.gov.uk), the site is neither designated nor immediately adjacent to any designated areas of nature conservation. However, there are designated sites nearby (see *Table 4.1.1.1* in *Section 4.1.1*). None of these will be directly affected by this small-scale development and all links will be maintained.

The site is within 5km of an SAC and an SPA (see *Section 4.1.1*). Both of these sites are designated due to the types of wetland habitats they include and the internationally important habitats for birds they provide.

As a result of its proximity to the SAC and SPA, the impacts of this small-scale development must be considered. The works to convert the main building into a office and build a new commercial unit on the site could increase the number of people using the site. Therefore, there could be an increase in the recreational pressure and potentially pollution, on these internationally designated sites. As a result, a financial contribution may be sought by the local planning authority to help offset these impacts.

According to the *Multi-Agency Geographic Information for the Countryside* website (www.magic.gov.uk), there has been one bat European Protected Species (EPS) licences granted within 2km of the site, which is c.90m west of the site. Due to its close proximity, it is likely that any bats using the site *e.g.* for commuting and foraging are part of the same meta-population. However, due to the small-scale of the proposed works, any impacts are considered to be minimal.

5.2.2 *Commuting and foraging bats*

There is limited foraging habitat for emerging bats in the immediate vicinity of the building. However, the wider landscape does offer suitable habitat nearby, including mature trees; two tidal ponds; Chichester Harbour; and open green spaces. These areas will be unaffected by the development and all links will be maintained.

Changes in lighting can affect foraging and commuting bats. Therefore, no works should take place in the hours of darkness or under artificial lighting. In addition, no lighting should be directed onto retained vegetation, and security lights should operate on a timer, to avoid any negative impact on bats.

Any lighting installed should avoid spillage of greater than 0.1 lux (typical moonlight/ cloudy sky) onto retained vegetation. However, it is in a highly lit area and as such this may not be possible due to existing light spill. If this is the case any new lighting should not increase the level currently experiment and, if at all possible, should reduce any light spill due to the type of lighting used and the use of protection such as hoods and cowl.

The use of non-UV LED lighting (preferably using warm spectrum wavelengths) is strongly recommended to avoid the most deleterious impacts of lighting on biodiversity and bats in particular.

5.2.3 *Emsworth Surgery*

Due to the low number of suitable roosting features on the building (e.g. lifted roof tiles), the building has low bat roost suitability.

No bats were recorded emerging from the building and no evidence was found during either building survey. Therefore, a bat EPS licence from Natural England is not required and the works can proceed without further survey or constraints regarding bats (subject to any planning constraints).

Two shed are also present on site that have negligible bat roost suitability. Therefore, the works can proceed without further survey or constraints regarding bats (subject to any planning constraints).

Enhancement measures will be required to be incorporated into the building and/ or wider site to comply with national and local planning policy that requires a net gain in biodiversity. The proposed enhancement measures are given in *Section 5.6*.

5.2.4 *Trees*

All the trees on site were identified as having negligible bat roost suitability. Therefore, no further surveys are proposed.

5.2.5 *Schedule 9 species*

One non-native, invasive plant species listed on *Schedule 9* of the *Wildlife and Countryside Act 1981* (as amended) was recorded on the site. This is *Crocoshia* × *crocoshiiiflora* (Montbretia), which is located in the courtyard.

It is an offence under the *Wildlife and Countryside Act 1981* (as amended) to cause any species listed on *Schedule 9* to spread in the wild. Therefore, the plants should be removed to avoid spreading to the remainder of the site or off-site during site works, especially as they are in the area of work. Information of the removal of the *Schedule 9* species (should the owners need to do so) is given in *Section 5.6.2*.

Crocoshia × *crocoshiiiflora* (Montbretia) primarily spreads via corms and rhizomes. Rhizome fragments only require a small fragment with a single corm (food source) to grow. Therefore, it can create new colonies elsewhere if broken and moved in contaminated soil. If undisturbed it can form dense stands which can cover large areas. This shades out and outcompetes native plants.

5.2.6 *Birds*

The building provides limited suitable habitat for nesting birds. The destruction of active bird nests is prohibited under the *Wildlife and Countryside Act 1981* (as amended). All demolition works (including the removal of roof tiles) should take place outside the breeding bird season (which is late February to August inclusive). If this is not possible, and the roof or sections of the building have to be removed during the nesting season, the building should be checked for nests (by an ecologist) immediately prior to works. Any active nests on the building must be retained and work must be delayed in that area until the young have fledged and left the nest.

5.3 ***Alternative roosting potential***

There are buildings nearby that could provide alternative roosting for bats (see *Figure 1* in *Section 6*). In addition, there are several mature trees in the vicinity which could provide bat roosting opportunities.

5.4 **Survey report expiry**

This survey data is valid for a maximum of 12 months. Bats frequently move around and adopt new roosting sites, therefore if more than 12 months elapses it may be advisable to conduct further survey work to obtain up-to-date information to advise work, thereby ensuring protected species compliance.

Given the mobility of bats, it is recommended that a walkover of the site to update the survey information is undertaken prior to the development commencing if this does not occur before the end of April 2023.

5.5 **Further survey**

No further surveys are proposed.

5.6 **Outline enhancement measures**

5.6.1 *General*

From the 20th July 2021, the Government published the revised National Planning Policy Framework (Ministry of Housing, Communities and Local Government, 2021). The document sets out the government's planning policies for England and how these are expected to be applied. This replaces a previous version which was published in June 2019. It states: "*at the heart of the Framework is a presumption in favour of sustainable development (paragraph 11).*"

It also states "*opportunities to incorporate biodiversity in and around developments should be encouraged*" as part of the consideration for "*presumption in favour of sustainable development*".

The updated National Planning Policy Framework (NPPF) also states (paragraph 170) that: "*Planning Policies and decisions should contribute to and enhance the natural and local environment by... minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.*"

The updated Planning Policy Guidance (PPG) for the Natural Environment, updated in July 2019 states (paragraph 020) that:

"Net gain in planning describes an approach to development that leaves the natural environment in a measurably better state than it was beforehand."

The updated PPG provides examples of how biodiversity net gain can be achieved. Measures suggested include "creating new habitats" and "enhancing existing habitats".

It is proposed that the enhancements to provide biodiversity net gain will also be in the form of the following:

- removing *Schedule 9* species;
- sensitive lighting (for bats and other wildlife);

- new bird nesting provision; and
- insect boxes.

These enhancements are detailed in the following sections.

5.6.2 *Schedule 9 species*

General

To comply with the law, the *Schedule 9* species listed in *Section 5.2.4* will be controlled and eradicated so not to cause the plant to spread on this or other sites as a result of earth moving, soil/rubble removal or other operations.

Crocasmia × *crocosmiiflora* (Montbretia)

For the removal of *Crocasmia* × *crocosmiiflora* (Montbretia), two main options exist; mechanical removal and chemical treatment. The options depend on the timescale of the works. Herbicide treatment must be completed by appropriately qualified contractors and should take place prior to any earth-moving operations.

Alternatively (especially if there is a short timescale), then the plant and soil containing corms and rhizomes can be scraped down to a minimum of 50cm. In addition, 2-3m of soil around the visible area must be removed. Any soil which contains this species is classed as controlled waste and must be disposed of appropriately. It will be disposed of in one of the following ways:

- in landfill as controlled waste;
- buried on site at a depth of 2m; or
- used to form a bund on site, where it can be treated with herbicide or buried.

5.6.3 *Lighting*

Changes in lighting can affect commuting, foraging and roosting bats. Therefore, no works should take place in the hours of darkness or under artificial lighting. In addition, no lighting should be directed onto retained or planted vegetation (particularly the trees and shrubs) and any lighting installed should avoid spillage of greater than 0.1 lux (typical moonlight/ cloudy sky) or not increase the existing level, near to or directly onto the vegetation so that light disturbance is not a problem. This is because lighting can impact bat populations directly by disturbing roosts and reducing their foraging area, or indirectly by severing commuting routes from roosts. Therefore, the following (modified from *Bats and lighting in the UK* (ILP 2018)) should be undertaken:

- **Aim of light** The light should be aimed to illuminate only the immediate area required by using as sharp a downward angle as possible. This lit area must avoid being directed at, or close to, any retained vegetation. A shield or hood can be used to control or restrict the area to be lit. Avoid illuminating at a wider angle as this will be more disturbing to foraging and commuting bats, as well as people and other wildlife.

For any security lighting, the following should also apply:

- **Power** It is rarely necessary to use a lamp of greater than 2000 lumens (150W) in security lights. The use of a higher power is not as effective for the intended function and will be more disturbing for bats.
- **Movement sensors** Many security lights are fitted with movement sensors which, if well installed and aimed, will reduce the amount of time a light is on each night. This is more easily achieved in a system where the light unit and the movement sensor are able to be separately aimed.
- **Timers** If the light is fitted with a timer this should be adjusted to the minimum to reduce the amount of 'lit time'.
- **Alternatives** The requirement for security lighting in each instance should be carefully considered and only used where absolutely necessary to deter crime.

The use of non-UV LED lighting (preferably using warm spectrum wavelengths) is strongly recommended to avoid the most deleterious impacts of lighting on biodiversity and bats in particular.

5.6.4 Birds

As the site did not have significant bat activity (possibly due to a high level of lighting), it is proposed that the enhancements will be in the form of bird boxes attached to or built into the exterior walls of the buildings. The bird boxes are detailed in *Table 5.6.3*.

Swift boxes can be supplied and installed by Hampshire Swifts <https://www.hampshireswifts.co.uk> and a new soffit design is also available (this box is also suitable for sparrows).

Table 5.6.3. Bird boxes to be erected within the site with additional details on siting them to increase chances of occupancy.

Type / example	Typical species	No.	Height	Additional information
Sparrow box/ terrace e.g. WoodStone Build-in House Sparrow Nest Box  Vivara Pro WoodStone House Sparrow Nest Box 	House sparrows	2	≥ 2m	• Either incorporate into the build structure or mount on a building. • Should be fixed onto a sturdy building, not onto fences or garden sheds due to its weight. • Position away from windows. • Position out of direct sunlight (below eaves on the north elevation), especially if not built into the build structure.

Swift boxes e.g. Ibstock Eco-habitat  or Swift boxes from Hampshire Swifts 	Swifts	2	$\geq 5\text{m}$	• Can either be incorporated into the build structure or mounted onto a building. • Position out of direct sunlight (below eaves on the north elevation), away from windows and in a straight line. • Should be in an open area so that it is less accessible to predators and birds are not obstructed as they leave the nest.
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5.6.5 *Insects*

At least one bee brick should be installed in each of the buildings. These should be positioned over 1m from the ground, in a warm sunny spot, in a south-facing wall, with no vegetation in front of the holes. Bee-friendly and insect friendly plants should be located nearby so that the bees and insects using the boxes have food. Lavender, honeysuckle and buddleia are all pollinator-friendly plants. Solitary bees are non-aggressive and as such are suitable for gardens with pets and children.

5.7 *Requirement for Habitats Regulations licence*

A bat European Protected Species (EPS) licence or Bat Mitigation Class Licence (formerly Bat Low Impact Class Licence, if qualifying) site registration from Natural England is not necessary before work commences on the Emsworth Surgery.

In the unlikely event that bats are found during the works, work will stop immediately, further surveys carried out and an EPS licence will be applied for. A bat licence from Natural England permits activities that may otherwise be offences under the *Conservation of Habitats & Species Regulations 2017*, such as the destruction of roost sites.

Evidence is required from emergence and/ or re-entry surveys during the bat active season between May and September in order to gather enough information about bat populations (including species, numbers and status of roost sites) to support a bat EPS licence application.

Survey data supporting EPS licence applications must be up-to-date *i.e.* have been conducted within the current or most recent optimal survey season (May to September). Therefore, if licensable work is delayed until, during or after the next survey season, updated survey(s) will be required to support an application.

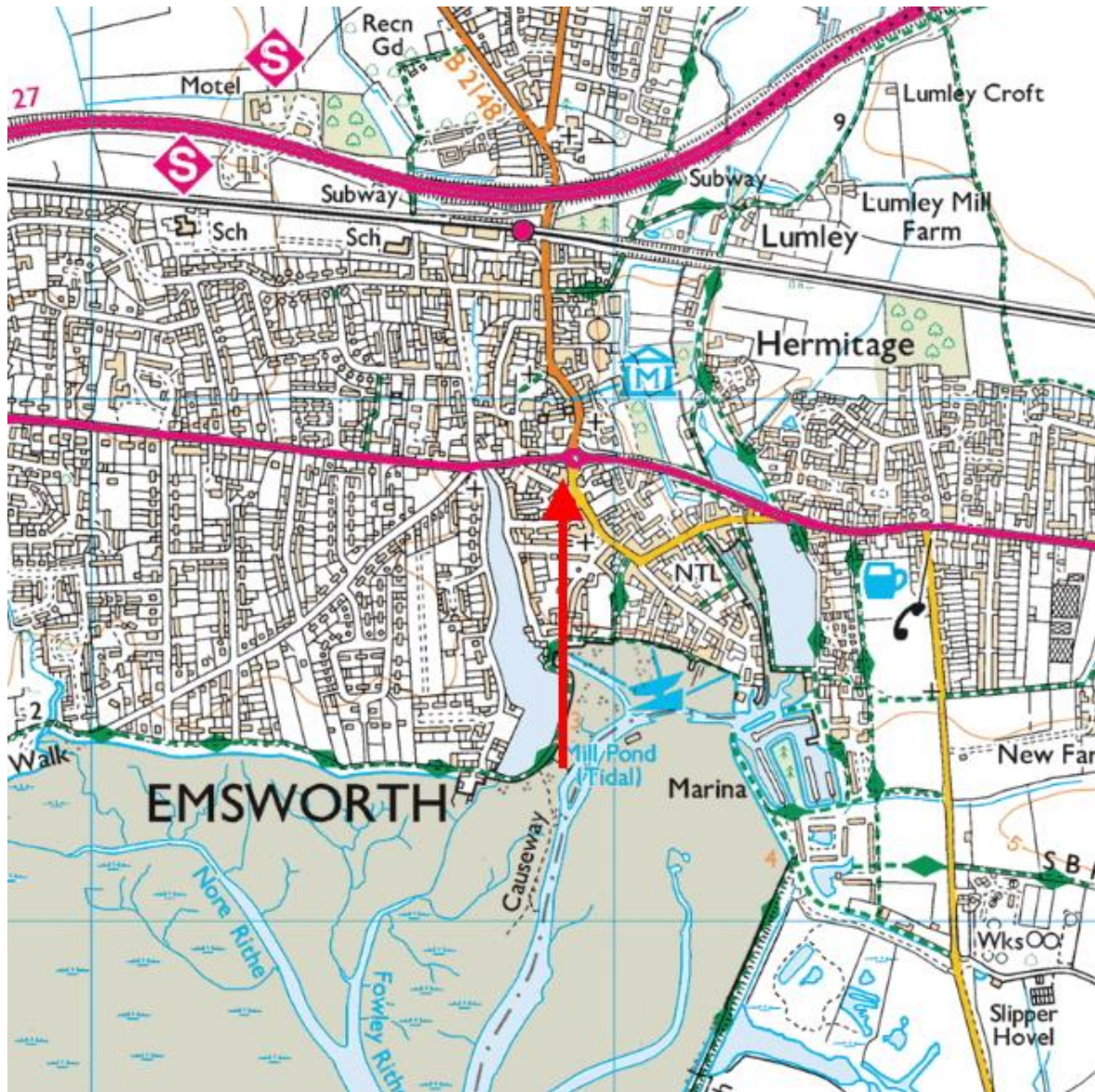
Natural England takes a minimum of 30-60 working days to process licence applications following receipt of all the relevant documentation. This includes an application form and a Method Statement. This includes a detailed mitigation strategy to eliminate or reduce impacts on bats.

It is not possible to apply for an EPS licence until full planning permission has been granted and any conditions relating to wildlife fulfilled, although Local Planning Authorities usually request the information prior to determining a planning application request. Additional time will be required where any revisions to a proposed mitigation strategy are necessary to obtain the licence.

Figure 1. Aerial photographs showing the location of the site.



Figure 2. An Ordnance Survey map showing the site location, as indicated by the red arrow.



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Figure 3. Plan of the site showing the building surveyed and other ecological constraints.

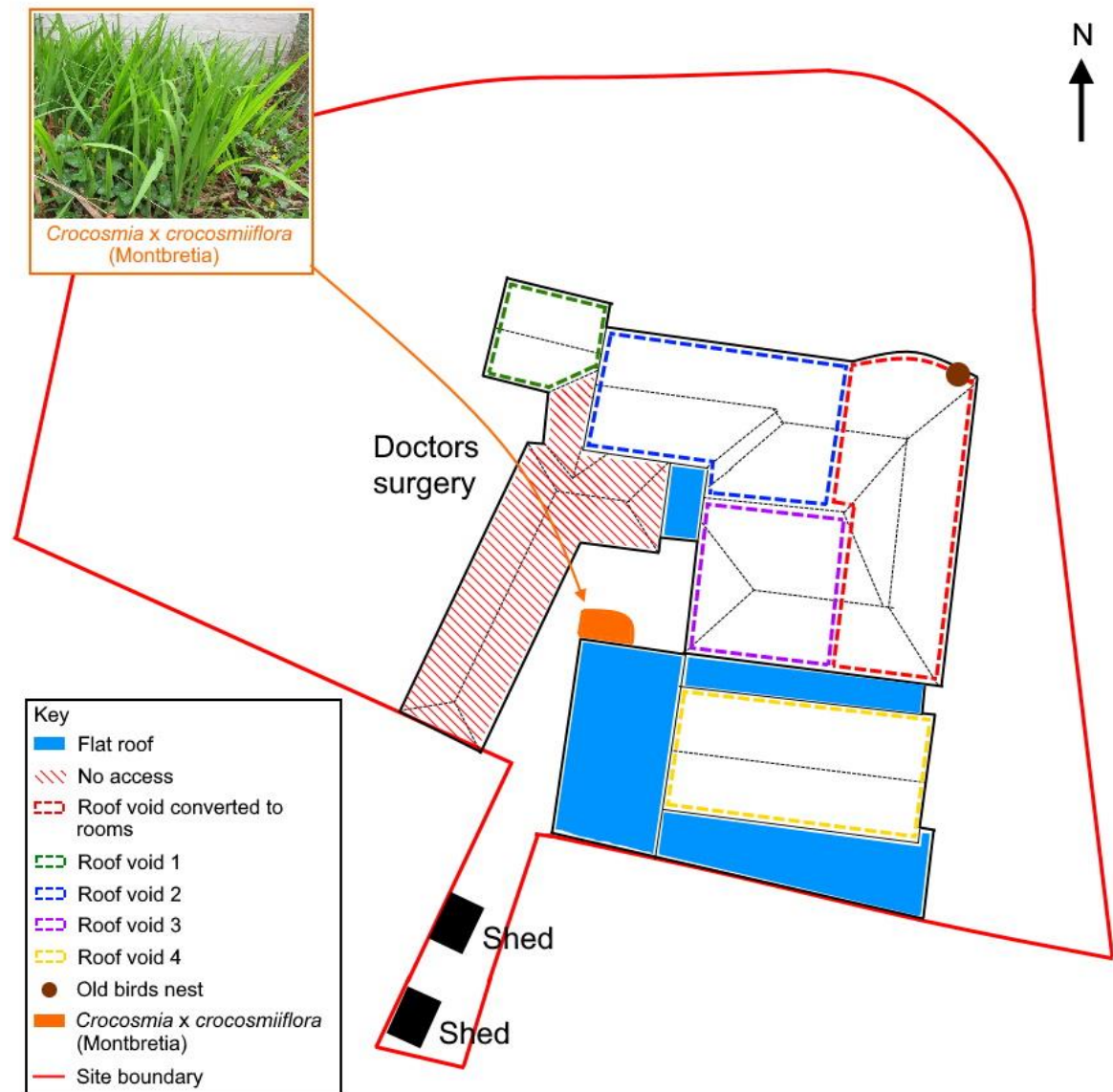




Photo 1. Site from the High Street to the south-east (taken 10/08/20).



Photo 2. Busy roundabout immediately adjacent to the site (A259) (taken 10/08/20).



Photo 3. Small garden on the north side of the site (taken 10/08/20).



Photo 4. Gravel parking areas to the rear of the site (west) (taken 10/08/20)).



Photo 5. Well-lit High Street, south-east of the site (taken 10/08/20).



Photo 6. Slipper Mill Pond (tidal) nearby (to the west) (taken 10/08/20).



Photo 7. Old birds' nest and droppings in the eaves from roof void 2 (Taken 31/03/22).



Photo 8. Courtyard with paved ground and vegetation growing through (Taken 31/03/22).



Photo 9. Sheds in the alley off the courtyard (Taken 31/03/22).



Photo 10. Parking area with shrubs and immature trees along the north boundary of the site (Taken 31/03/22).



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9.1 Legal context

All species of British bat are protected by the *Wildlife and Countryside Act 1981* (as amended) extended by the *Countryside and Rights of Way Act 2000*. This legislation makes it an offence to:

- intentionally kill, injure or take a bat;
- possess or control a bat;
- intentionally or recklessly damage, destroy or obstruct access to a bat roost; and
- intentionally or recklessly disturb a bat whilst it occupies a bat roost.

Bats are also European Protected Species listed on the *Conservation of Habitats & Species Regulations 2017*. This legislation makes it an offence to:

- deliberately capture, injure or kill a bat;
- deliberately disturb a bat (in such a way as to be likely to significantly affect: (i) the ability of a significant group of bats to survive, breed or rear/nurture their young; or (ii) the local distribution or abundance of the species concerned);
- damage or destroy a breeding site or resting place of a bat; and
- possess, control, transport, sell, exchange a bat, or offer a bat for sale or exchange.

All bat roosting sites receive legal protection even when bats are not present (bats tend to reuse the same roost).

Where it is necessary to carry out an action that could result in an offence under the *Conservation of Habitats & Species Regulations 2017* it is possible to apply for a European Protected Species (EPS) licence from Natural England. Licences are only issued where Natural England are satisfied that three derogation tests are met. These are: that the activity is for **imperative reasons of overriding public interest**; that there must be **no satisfactory alternative**; and that **favourable conservation status of the species must be maintained**.

Consideration of these three derogation tests was previously left to Natural England as part of their deliberations on whether to grant a licence for the development activity after a planning consent has been issued. However, the regulations now require that **all** public bodies, i.e. **Local Planning Authorities** (LPAs), have regard to the requirements of the European Habitats Directive when carrying out their functions. As a result, LPAs **must** address the three derogation tests when considering a planning application that could impact upon any European Protected Species (EPS).

9.2 **National planning context**

9.2.1 *General*

Surveys should be completed in line with Natural England's *Standing Advice for Local Authorities* (<http://www.naturalengland.org.uk/ourwork/planningdevelopment/spatialplanning/standingadvice/default.aspx>), which states:

- Natural England will not comment on applications that are submitted without the relevant protected species surveys if there are no other issues (*i.e.* in relation to SSSIs or landscape).
- Natural England will not comment on scoping surveys that recommend further surveys where these have not been undertaken and submitted with the scoping reports.

In addition to the above, *Section 40* of the *Natural Environment and Rural Communities Act* (2006) imposes a new duty on all public authorities to have regard for biodiversity.

9.2.2 *National Planning Policy Framework (NPPF)*

From the 20th July 2021, the Government published the revised National Planning Policy Framework. The document sets out the government's planning policies for England and how these are expected to be applied. This replaces a previous version which was published in June 2019. It states: "*at the heart of the Framework is a presumption in favour of sustainable development (paragraph 11).*"

Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives):

- an economic objective;
- a social objective; and
- an environmental objective.

The environmental objective is 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*".

Planning policies and decisions should contribute to and enhance the natural and local environment by "*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)*" and "*minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures*".

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.

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.

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.

It states that *"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"*.

It should be noted that the *"presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site"*.

The NPPF also encourages *"minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"* and aims to *"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"*. This applies to non-statutory designated sites including Sites of Importance for Nature Conservation (SINCs) and equivalent county wildlife sites.

Early engagement with all necessary stakeholders, including expert bodies, is encouraged by the NPPF.

Bats use different roosting sites throughout the year according to their life cycle requirements.

Hibernation during the winter months requires roosting sites that are cool and humid. As conditions improve through the spring, bats become increasingly active and tend to use transitional roosting sites. During the summer months, females give birth in maternity roosts. Maternity roosts tend to be warm and temperature-stable, which aids rapid development of the young, which are weaned in late summer. In the autumn, adult bats congregate in mating roosts and also use transitional roosting sites. Autumn is the time when both adults and juveniles have to build up fat reserves in preparation for hibernation through the winter months.

Bats also use roosts during the night as feeding perches. Species that catch large prey items such as moths (*e.g.* brown long-eared bat) often enter buildings to hang up and eat their prey before emerging again to forage. Such feeding perches tend to be obvious from scatterings of bat droppings with moth wings, which the bats discard.

Bats are at their most vulnerable during the summer in their maternity roosts, when disturbance can jeopardise their breeding success. Bats give birth to only one pup per year and young do not breed until the second or third year after birth. This means that if maternity colonies are disturbed there can be serious implications for the conservation status of populations.

Bats are also vulnerable during the winter hibernation period, when disturbance can reduce their chance of survival through the winter at a time when food is in short supply.

This is why there are often only narrow timeframes for bat survey and mitigation work.

APPENDIX C: DUSK EMERGENCE SURVEY DATA

Date	10/08/2020			
Temp	23.1°C at start and 23.0°C at the end			
Weather	Warm, dry and clear with a calm air (Beaufort scale 0)			
Ecologists	Calum Cooper & Darla Brown			
Observer	Time	No.	Species	Observation
-	20:18		-	Ecologists commenced observations
-	20:33		-	Sunset
DB	21:20	1	Common pipistrelle	Heard but not seen
DB	21:25	1	Common pipistrelle	Heard but not seen
DB	21:35	1	Common pipistrelle	Heard but not seen
CC, DB	21:36	1	Common pipistrelle	Heard foraging but not seen
CC	21:39	1	Common pipistrelle	Heard but not seen
-	22:03	-	-	Ecologists ceased observations