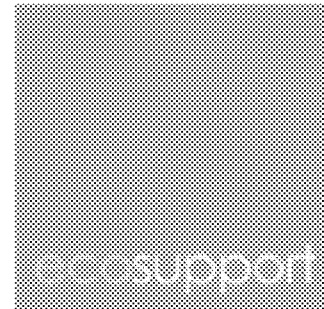


ecological support,
management and solutions



Land North of Nyton Road
Westergate
Updated Bat Surveys

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For Taylor Wimpey Southern Counties
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1.0 INTRODUCTION

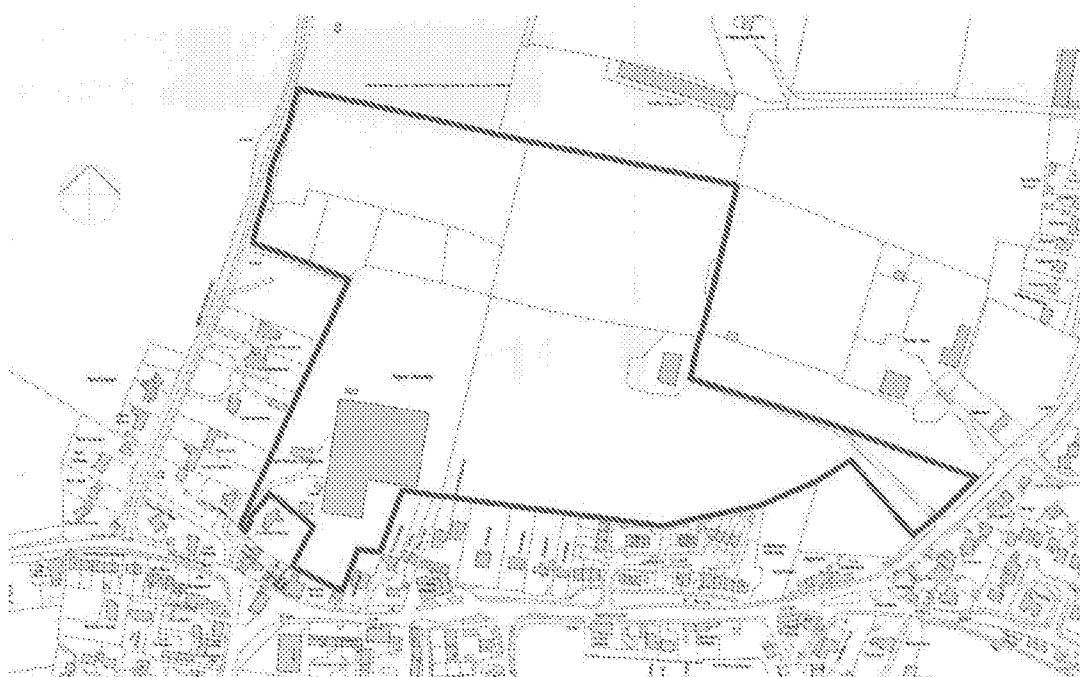
1.1 Brief

Ecosupport Ltd was commissioned by Taylor Wimpey to carry out an updated emergence surveys of two buildings associated with the land north of Nyton Road, Westergate site. These surveys were required due to the length of time since previous surveys were undertaken (Ramboll 2014) and the presence of bat droppings within the bungalow on site.

1.2 Site Description and Location

The site comprises a series of fields (some of which were previously used for pasture though now all managed semi improved) tree lines, greenhouses an industrial unit and a residential bungalow located north of Nyton Road, PO20 3UH (centred on OS grid reference SU 941 058) on the outskirts of Westergate (**Fig 1**). The south of the site is bounded by residential houses (with Nyton Road just beyond these), the east by a scrapyard and Fontwell Avenue, the north by arable / pasture fields and the east by residential houses and Northfields Lane.

Figure 1. Redline boundary of the development site.



1.3 Proposed Works

The Proposals entail a reserved matters application for the demolition of the existing glasshouses, residential bungalow, stables and various outbuildings for a residential development of up to 268 dwellings with associated access, public open space and landscaping.

1.4 Relevant Legislation and Policy

1.4.1 Relevant legislation

The Wildlife & Countryside Act 1981 (as amended) (HMSO, 1981) is the primary piece of legislation by which biodiversity in the UK is protected. The most relevant areas of the Act to development related activities are:

- The identification and subsequent protection of Sites of Special Scientific Interest (SSSIs), which prohibits damaging activities.
- The protection of certain species listed in Schedule 5, which prohibits killing, injury, disturbance, damage and/or destruction of breeding sites and/or resting places and sale (it should be noted that all parts of this protection do not apply to all Scheduled species).
- The protection of wild birds and their nests, which prohibits damage or destruction of nests whilst in use.

The Conservation of Habitats and Species Regulations 2010 (known as the 'Habitats Regulations') (HMSO, 2010), pass two EEC Directives into UK law. The Regulations protect sites and species deemed to be of conservation importance across Europe. The most relevant parts of the Regulations to development related activities are:

- The protection of Special Protection Areas (SPAs) and Special Areas of Conservation (SACs)
- The protection of species listed within Schedule 2 of the Regulations, which prohibits killing, injury, disturbance, damage and/or destruction of breeding sites and/or resting places and sale, this confers some level of habitat protection.

In order for activities that would be likely to result in a breach of species protection under the regulations to legally take place, a European Protected Species (EPS) licence must first be obtained from Natural England.

The Natural Environment and Rural Communities (NERC) Act 2006 requires that public bodies have due regard to the conservation of biodiversity. This means that Planning authorities must consider biodiversity when planning or undertaking activities. Section 41 of the Act lists species found in England which were identified as requiring action under the UK Biodiversity Action Plan and which continue to be regarded as conservation priorities under the *UK Post – 2010 Biodiversity Framework*.

1.4.2 National Planning Policy

The development would seek to comply with relevant Planning Policy, at a local, regional and national level.

Planning Policy Statement 9 (PPS9) was superseded by the National Planning Policy Framework

(NPPF) in March 2012. The NPPF states that the planning system should contribute to and enhance the natural and local environment by:

- Recognising the wider benefits of ecosystem services.
- Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.
- The conservation of International and National statutorily designated sites.
- Protection of ancient woodland and veteran trees.
- The creation, protection, enhancement and management of networks of biodiversity and green infrastructure.
- The preservation, restoration and recreation of priority habitats and ecological networks.
- The recovery of priority species populations.

2.2.2 Local

Local planning policy pertaining to biodiversity is outlined within the *Arun Local Plan 2011 – 2031 Publication Version* (2014). Within this document Policy ENV DM5 (Development and Biodiversity) states:

'Development schemes shall, in the first instance, seek to achieve a net gain in biodiversity and protect existing habitats on site. They shall also however incorporate elements of biodiversity including green walls, roofs, bat and bird boxes as well as landscape features minimising adverse impacts on existing habitats (whether designated or not). Development schemes shall also be appropriately designed to facilitate the emergence of new habitats through the creation of links between habitat areas and open spaces. Together, these provide a network of green spaces, which serve to reconnect isolated sites and facilitate species movement.'

Where there is evidence of a protected species on a proposed development site, planning applications shall include a detailed survey of the subject species, with details of measures to be incorporated into the development scheme to avoid loss of the species. This involves consideration of any impacts that will affect the species directly or indirectly, whether within the application site or in an area outside of the site, which may be indirectly affected by the proposals. All surveys shall be carried out at an appropriate time of year and shall be undertaken by a qualified and, where appropriate, suitably licensed person.'

All developments shall have regard to Natural England's standing advice for protected species.'

Developments shall also be consistent with all other Local Plan policies.'

2.0 METHODS

2.1 Phase II Site Survey Methodology

2.1.1 Bat surveys (*dusk / dawn*)

The emergence / re-entry surveys were undertaken by Adam Jessop (2015-13366-CLS-CLS), Aaron Domblides, Gemma Renyard, Richard Buckle, Norton Whyte and Dan Sydney. Both heterodyne (Bat Box Duet and Elkon Batscanner) and time expansion (Anabat Express) detectors were used for identifying species calls. The dusk emergence surveys began approximately 15 minutes prior to sunset and continued until approximately an hour and 15 minutes after sunset whilst the dawn survey started an hour and half before sunrise continuing until sunrise. Survey sheets were used to record the following information:

- Time of call registration
- Species (if possible to identify using heterodyne detector)
- Location / activity
- Direction of flight (if seen)

Two surveyors were located in positions to cover all elevations of the building during surveys.

2.2.2 DNA analysis of droppings

Based on the presence of bat droppings within the loft space, a sample was taken to send for DNA analysis to the University of Warwick.

2.2 Limitations

There were not considered to be any significant limitations on the results of the surveys with the loft space accessible and the surveys carried out during an appropriate time of year as per the best practice guidelines (Collins (ed) 2016).

3.0 RESULTS

3.1 Bat Survey Results

3.1.1 DNA analysis

The results from the DNA analysis of the dropping sample collected initially came back as inconclusive and a second run is currently being analysed, however due to the age of the droppings it is possible that the species will be unidentifiable by DNA analysis. If this is the case, based on the characteristics of the droppings, it will be assumed they are from Brown Long Eared (*Plecotus auritus*).

NB If the second run of the DNA testing is successful; this report will be updated with the results.

3.1.2 Emergence surveys

Table 1 below provides the relevant information about the conditions during each of the surveys undertaken whilst **Table 2** provides a summary of the results.

Table 1. Dates and relevant weather details during the surveys.

Date	Buildings Covered	Temp (°C)	Cloud Cover (%)	Wind (beaufort scale)	Start time	Finish time	General information
24/07/2017	Bungalow and barn / workshop	18	35	0	20:50	22:15	Calm, mild
10/08/2017	Bungalow	14	0	0	20:22	21:47	Calm, cool
23/08/2017	Bungalow	18	0	0	04:33	06:03	Calm, Mild, Humid

Table 2. Results of the bat surveys undertaken.

Survey Date	Recorded Bat Roost	General Bat Activity on Site		
25 th July 2017	No emergence	Species	First Pass	Last Pass
		Common Pipistrelle	21:15	22:01
		Soprano Pipistrelle	21:16	21:57
		<u>Summary:</u> The first bat recorded during the survey of bungalow was a Common		

		Pipistrelle (<i>Pipistrellus pipistrellus</i>) recorded at 21:15 flying away from the building to the West of the Bungalow (Building 1). This Pipistrelle was then observed foraging continuously around the bungalow until 21:31. Common Pipistrelles were thereafter recorded intermittently foraging/commuting until 22:01. The only other species recorded during the survey of the bungalow was a Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>) which was recorded shortly after the first Common Pipistrelle at 21:16. This Pipistrelle was then observed foraging continuously around the bungalow until 21:34. Soprano Pipistrelles were thereafter recorded foraging and commuting intermittently until 21:57. During the survey of the barn / workshop, the only bat recorded was a single Common Pipistrelle at 21:38 briefly foraging to the south west of the building.												
10 th August 2017	No emergence	<table><tr><th>Species</th><th>First pass</th><th>Last Pass</th></tr><tr><td>Soprano Pipistrelle</td><td>20:38</td><td>21:24</td></tr><tr><td>Common Pipistrelle</td><td>20:45</td><td>21:21</td></tr><tr><td>Noctule</td><td>21:32</td><td>21:32</td></tr></table> <u>Summary:</u> The first bat recorded at 20:38 was a Soprano Pipistrelle, which was observed flying to the west of the bungalow as per the first dusk survey. This Pipistrelle was then recorded continuously foraging around the bungalow until 20:56. Thereafter intermittent Soprano Pipistrelle activity was recorded until 21:24. At 20:45 the first Common Pipistrelle was recorded foraging around the bungalow until 20:52. Thereafter intermittent foraging was recorded until 21:21 around the bungalow. The final bat recorded on this survey at 21:32 was a noctule (<i>Nyctalus noctula</i>) was briefly recorded on the detector but was not seen.	Species	First pass	Last Pass	Soprano Pipistrelle	20:38	21:24	Common Pipistrelle	20:45	21:21	Noctule	21:32	21:32
Species	First pass	Last Pass												
Soprano Pipistrelle	20:38	21:24												
Common Pipistrelle	20:45	21:21												
Noctule	21:32	21:32												
23 rd August 2017	No re-entry	<table><tr><th>Species</th><th>First pass</th><th>Last Pass</th></tr><tr><td>Common Pipistrelle</td><td>04:46</td><td>05:29</td></tr><tr><td><i>Plecotus</i> spp.</td><td>04:46</td><td>05:06</td></tr><tr><td>Soprano Pipistrelle</td><td>05:14</td><td>05:14</td></tr></table> <u>Summary:</u> The First registration was from a Common Pipistrelle at 04:46, which was briefly heard but not seen. At 05:04, 05:12 and 05:26 Common Pipistrelles were recorded commuting over the bungalow in a northwards direction. At 05:29 a Common Pipistrelle was also seen	Species	First pass	Last Pass	Common Pipistrelle	04:46	05:29	<i>Plecotus</i> spp.	04:46	05:06	Soprano Pipistrelle	05:14	05:14
Species	First pass	Last Pass												
Common Pipistrelle	04:46	05:29												
<i>Plecotus</i> spp.	04:46	05:06												
Soprano Pipistrelle	05:14	05:14												

		foraging briefly in the garden to the south of the bungalow. The first registration of a <i>Plecotus spp.</i> was at 04: 46 and was also heard but not seen. A <i>Plecotus spp.</i> was then recorded foraging at 04:55 and 05:06 around the bungalow in the garden and Eucalyptus trees. A single Soprano Pipistrelle was also briefly recorded but was not seen at 05:14.
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3.2 Summary & Evaluation of Results

3.2.1 Bats

Based on the results of the Phase I survey and follow up emergence surveys the bungalow on site is considered to support a (currently) inactive non breeding transitional summer roost for *Plecotus spp* whilst no bat roosts are present within the workshop / barn. Despite the reasonably high number of droppings (150 – 200 which is an increase from the number observed by PJC Ecology in 2012) present within the loft space, as they were all old droppings and no emergence was noted during the surveys (which were spread over 6 weeks and covered the peak maternity time season), it is not considered the roost would have been a more significant.

3.3 Site Status Assessment

Brown long eared bats are relatively common throughout the UK (Richardson, 2001) though have been subject to major declines over the last decade. In accordance with the *Bat Mitigation Guidelines* (Mitchell – Jones, 2004), the roost at the bungalow to the north of Nyton Lane, Westergate can therefore be considered to be of **LOW CONSERVATION SIGNIFICANCE** and therefore of **LOCAL VALUE** using the IEEM valuation criteria for bat roosts (Wray et al., 2010).

3.4 Implications

Due to the presence of a bat roost within the dwelling, any works to the building that will result in damage or disturbance to the roost (such as roof tile removal, works in the loft space) could constitute an offence under the Conservation of Habitats & Species Regulations (2010). In order for works that may result in such an offence (including demolition, modification of the building and repair) to legally take place, a European Protected Species (EPS) licence will be required. To inform an EPS, the below sections detail appropriate mitigation and compensation measures.

4.0 MITIGATION & COMPENSATION

4.1 Introduction

In order to fully comply with applicable legislation and planning policy, it is necessary to mitigate or compensate for any significant ecological impacts.

The chapter is divided into three sections, dealing with mitigation, compensation and enhancement. Mitigation refers to measures that can be undertaken to avoid or reduce ecological impacts, for example by timing works to avoid periods when bats are roosting. Compensation refers to measures taken in order to offset potential significant impacts, for example by providing alternative roost sites to replace roost sites lost as a result of the works.

4.2 Mitigation

4.2.1 EPS Licence

All works that will be carried out at the bungalow on site would take place under an EPSL obtained from Natural England and under the supervision of a Suitably Qualified Ecologist (SQE). Destruction of the roost and capture of bats (if required) will need to be carried out under the supervision of a licenced SQE. All works would be detailed within the EPSL Method Statement required as part of the licence application.

4.2.2 Timing

Given the low conservation significance of the roost identified, the Bat Mitigation Guidelines (Mitchell-Jones, 2004) do not recommend any specific timing restrictions on the works. Therefore, given the old nature of the droppings and the absence of any emerging bats during the updated surveys the bungalow can be demolished at any time of year after the EPSL has been granted.

4.2.3 Supervision

Prior to any works getting underway the licensed bat worker will give a Tool Box talk which will detail best practice methods of sensitive stripping/removal of roofing tiles/materials and identifying signs of bats. Personel will be educated on signs of bats and that in the unlikely event a bat is found whilst the licensed ecologist is not on site, that all works should stop immediately until the licensee returns to site.

The licensed bat worker will then assist contractors with the removal of construction materials surrounding the roost.

4.2.4 Capture (if required)

If during the sensitive removal of construction materials bats are discovered, the supervising ecologist will place the individuals into a holding bag (a soft cloth bag with closure-strings and with seams on the outside to ensure the bat keeps calm and will not take flight during daylight hours). They will then immediately transport the bat to one of the mitigating bat boxes where the bat will be released and left undisturbed. During this time, the licenced bat worker will be wearing appropriate bat handling gloves to ensure the bat does not come to any harm. Similarly, if during the sensitive demolition a bat is found, the same steps will be taken to ensure the bat is relocated as swiftly as possible and with the least amount of distress.

4.2.5 Bat boxes

Prior to any works getting underway 2 Schwegler 2F bat boxes (with double front panel) will be erected within one of the retained trees on site so any captured bats have somewhere appropriate to roost within. These boxes are manufactured from long-lasting Woodcrete which will not rot, leak, crack or warp, and will last for at least 20 - 25 years, making it suitable for long-term mitigation projects. It also provides a rough surface for bats to cling on to and climb.

4.3 Compensation

Given the low conservation significance of the bat roost, it is considered proportionate compensation would involve the retention of the Schwegler 2F mitigation bat boxes with this supplemented with a Schwegler 2FN bat box (which will again be erected on a suitable retained tree on site (**Fig 2**).

Figure 2. The two trees (indicated by yellow arrows) upon which the mitigation and compensatory bat boxes will be erected.



4.4 Monitoring and Maintenance

As the roost is only of low conservation significance, it is not considered necessary or proportionate to undertake any post works monitoring.

4.5 Lighting

Recommendation for a sensitive lighting scheme to minimise the impact upon foraging and commuting bats on site (including the trees where the bat boxes will be located on) are made within the updated Phase I report (Ecosupport 2017).

5.0 REFERENCES

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