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## Bat Emergence Survey Report

**Land at Langstone Technology Park, Havant, PO9 1SA**

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## **Report Summary**

1. The Ecology Co-op undertook a Bat Scoping Assessment of all the buildings at Langstone Technology Park as part of a Phase 1 Habitat and Species survey on 21<sup>st</sup> March 2019. Building 1000, which will be partly demolished and have a new flank elevation built to the east, was assessed as having 'low' bat roosting potential, based on the presence of an accessible horizontal crevice behind each concrete cladding panel that could support individual roosting bats.
2. Based on the above assessment and in line with Bat Conservation Trust Guidelines, one bat emergence survey visit was carried out in June 2019 to determine the presence of roosting bats and evaluate the conservation importance of the site for bats. The purpose of this survey work was to determine presence of roosting bats and provide advice to inform the part demolition of Building 1000, installation of a new flank elevation to the east.
3. No bats were seen to emerge from building at any time during the bat emergence survey on the 18<sup>th</sup> June 2019. Activity was low at this site with three species; common pipistrelle, soprano pipistrelle and common noctule recorded briefly foraging and commuting to the north of the building during the survey. No bat activity was recorded on the eastern or southern sides of the building
4. As no bats have been identified emerging from the building during the survey and bat activity was very low, it is considered unlikely that a bat roost is present, and the proposed works are highly unlikely to impact upon roosting bats. As a result, a European Protected Species (EPS) Mitigation Licence is not required for the proposed works to proceed upon this building.
5. In the highly unlikely event that a roosting bat or evidence of roosting bats are discovered during works to the property, works must cease immediately, and a licensed ecologist contacted to determine the appropriate course of action.

This report has been prepared by The Ecology Co-operation Ltd, with all reasonable skill, care and diligence within the terms of the Contract with the client. This report only becomes the property of the client once payment for it has been received in full.

We disclaim responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.



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## **1 INTRODUCTION**

### **1.1 Background**

The Ecology Co-op undertook a Bat Scoping Assessment of all the buildings at Langstone Technology Park as part of a Phase 1 Habitat and Species survey on 21<sup>st</sup> March 2019 (see Figure 1).

This was completed in relation to a proposal is for full planning permission at Langstone Technology Park, Havant, PO9 1SA for:

- The part demolition of Building 1000, installation of a new flank elevation to the east;
- A new elevation to the north of building 4000 as a result of the above;
- The erection of new buildings in flexible B1c, B2 and B8 use in the south west corner of the site with associated parking; and
- The creation of new car parking areas and the rationalisation of existing parking areas (see Figure 2).

This assessment determined that Building 1000 had a 'low' bat roost potential based on the presence of an accessible horizontal crevice behind each concrete cladding panel<sup>1</sup>. Therefore, in accordance with current best practice guidelines<sup>2</sup>, a single emergence survey was recommended to determine the presence of roosting bats and evaluate the conservation importance of the site for bats.

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<sup>1</sup> The Ecology Co-op (2019) Phase 1 Habitat and Species Survey – Land at Langstone Technology Park, Havant, PO9 1SA.

<sup>2</sup> Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). Bat Conservation Trust, London.



**Figure 1.** An aerial image showing the location of Langstone Technology Park. The approximate site boundary is outlined in blue. The area of Building 1000 proposed for demolition and subjected to an emergence survey is indicated with a red outline. Images produced courtesy of Google maps (Map data ©2019 Google).

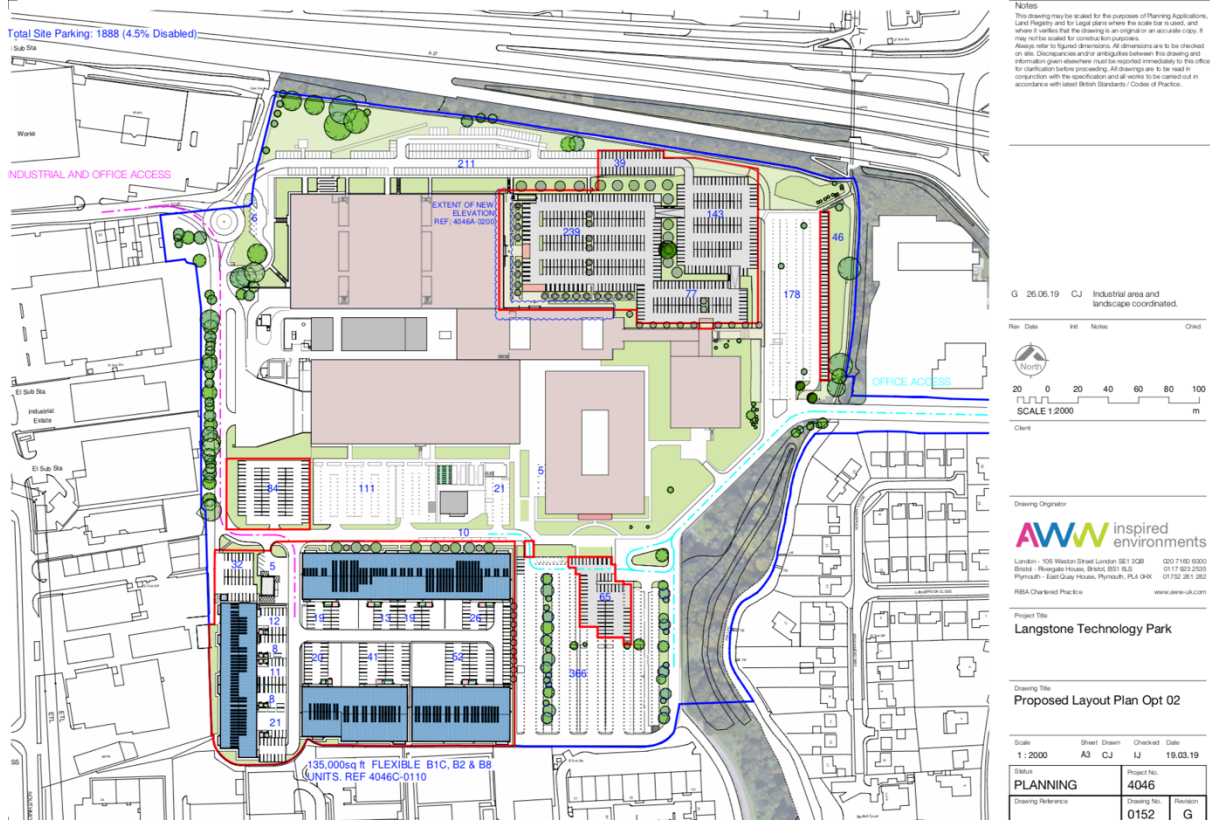


**Figure 2.** Proposed Layout Plan Opt 02 - Langstone Technology Park produced by AWW Inspired Environments Drawing No. 0152 Rev G. The ownership and application areas are shown with red and blue outlines.



## **1.2 Purpose of the Report**

In accordance with the recommendations of the Phase 1 Habitat and Species Survey<sup>1</sup>, this report presents the results of one bat emergence survey carried out in June 2019. This was led by Paul Whitby, a Chartered Ecologist (CEcol) a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM) and Natural England Level 2 class bat licence holder. The grid reference for this site is SU 7127 0569.

The purpose of this survey work was to determine presence of roosting bats and where necessary prescribe further surveys where necessary and/or appropriate mitigation advice to inform the planning application for the proposed development at the site.

This survey and report was carried out at the request of AG Langstone B.V. and Trinity Investment Management.

## **2 LEGAL PROTECTION**

Details of legislation and legal protection afforded to all species of British bats are given in Appendix 1.

The results of this survey will be used to determine the need for an appropriate mitigation strategy to ensure compliance with UK and EU wildlife legislation.

## **3 METHODOLOGY**

A single bat emergence survey was undertaken on the 18<sup>th</sup> June 2019, using the methodology set out in the best practice guidelines prepared by the Bat Conservation Trust.

The surveys focused upon the section of Building 1000 which will be demolished as part of the proposal, using three surveyors positioned according to Figure 3. From these positions surveyors could see almost all features potentially suitable for roosting bats that were identified during the initial bat scoping survey.

The surveyors recorded any bat activity on or around the potential roosting entry/exit features identified during the scoping survey, using full spectrum hand held bat detectors to identify species through call frequencies. The bat calls were logged and recorded as sonograms for later confirmation of species where necessary.



**Figure 3.** An aerial image of the site, showing the positions of surveyors (red dots). Images produced courtesy of Google maps (Map data ©2019 Google).

### *3.1 Limitations to emergence surveys*

In accordance the recommendations of the report<sup>1</sup>, one survey visit was undertaken in accordance with best practice guidelines, during the peak period in bat activity and during good weather conditions. The results presented here are therefore considered to be an accurate representation of the general use of the property by roosting bats.

Nevertheless, bats can use roosting features intermittently throughout the year and may be present in larger or smaller numbers depending on their breeding cycle, weather conditions, and in response to disturbance. These surveys record the emergence of bats at the time of the survey visits and therefore only provide a snapshot of bat roosting activity at the site at that time. Bats may be present at other times and the results should therefore be viewed with caution.

## **4 RESULTS**

### *4.1 Bat Emergence Surveys*

#### **4.3.1 Survey conditions**

The: dates, times, weather conditions, temperatures and personnel for each survey visit is presented in Table 1 below:

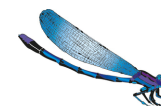


**Table 1.** Details of the bat emergence survey across the eastern portion of Building 1000 at Langstone Technology Park, including: timings, weather conditions and personnel.

| Date     | Survey start time/end time                               | Temp. degrees centigrade, weather conditions throughout survey               | Surveyors                                     |
|----------|----------------------------------------------------------|------------------------------------------------------------------------------|-----------------------------------------------|
| 18/06/19 | Start time: 20:50<br>Sunset: 21:20<br>Finish time: 22:45 | Max/Min temp: 17 – 15.5°C.<br>100% cloud cover, and light air (BF1) and dry. | Paul Whitby<br>Emma Baker<br>Sophie Bradfield |

### 4.3.2 Bat Emergence Results

No bats were recorded emerging from the area of the building surveyed at any time during the survey.

General bat activity was low with 3 species; common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and common noctule *Nyctalus noctula* recorded commuting and briefly foraging to the north of the building only. The first bat recorded was a high commuting common noctule at 21:40. Five minutes later several faint calls by a foraging soprano pipistrelle were recorded. At 21:49 a common pipistrelle flew over heard. Two soprano pipistrelle bats commuted west at 21:57. The final, bat was a commuting common pipistrelle heard but not seen at 22:35.

No bat activity was recorded by the surveyors positioned to the to the south or west of the building, with high levels of artificial light from an adjacent car park likely to negatively affect bat activity.

## 5 DISCUSSION AND RECOMMENDATIONS

As no bats have been identified emerging from the area of Building 1000 during the emergence survey, it is considered unlikely that a bat roost is present within the zone of impact (area of the building to be demolished). As a result of this assessment, the proposed construction works will have no foreseeable impacts on bats or their roost sites and subsequently an EPS Mitigation Licence is not required for the proposed works to proceed.

The highly transitory nature of many bat species means that it is difficult to confirm absence and therefore as a precautionary measure, the following measures should be put in place:

- Should the development commence more than 2 years from the date of this assessment, then a repeat bat emergence survey should be carried out to assess if any of the potential roosting features have been colonised by bats.
- The construction team should be made aware that suitable features for roosting bats are present and should any signs of bats, such as droppings, or bats themselves be identified during the demolition or construction, then work must cease, and a licensed ecologist should be contacted immediately to determine the appropriate course of action

Bat activity was low during the survey with three species; common pipistrelle, soprano pipistrelle and common noctule recorded commuting and briefly foraging to the north of the building. The survey identified that the site is well lit in its current state. However, in line with best practice any new lighting should be designed to be 'ecologically sensitive' in accordance with guidance produced by the Bat Conservation Trust (summarised in Appendix 1).



Should you need any further advice on the information provided above, please do not hesitate to contact The Ecology Co-op.



## **APPENDIX 1 – Legislation and Policy**

All species of British bat are fully protected under the Wildlife and Countryside Act 1981 as amended through inclusion in Schedule V. All bat species in the UK are also included in Schedule II of the Habitats Regulations 2010 which transpose Annex II of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (“EC Habitats Directive”) which defines European protected species of animals.

Bat species are afforded further protection by the Natural Environment and Rural Communities Act 2006.

Under the above legislation it is an offence to:

- kill, injure or take an individual;
- possess any part of an individual either alive or dead;
- intentionally or recklessly damage, destroy or obstruct access to any place or structure used by these species for shelter, rest, protection or breeding;
- intentionally or recklessly disturb these species whilst using any place of shelter or protection; or
- deliberate disturbance in such a way as to be likely to impair their ability to:
  - survive, to breed or reproduce, or to rear or nurture their young; or
  - in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
  - to affect significantly the local distribution or abundance of the species to which they belong;
- keep (possess), transport, sell or exchange, or offer for sale or exchange, any live or dead bat, or any part of, or anything derived from a bat.

It is also an offence to set and use articles capable of catching, injuring or killing bats (for example a trap or poison), or knowingly cause or permit such an action. In the case all species of British bat there is also protection under Schedule 6 of The Wildlife and Countryside Act 1981 (as amended) relating specifically to trapping and direct pursuit of these species.

A European Protected Species Mitigation License (EPSM) is required from Natural England for any work that would result in an otherwise unlawful activity (e.g. damage to a bat roost). A license can only be issued to permit otherwise prohibited acts if Natural England are satisfied that all of the following three tests are met:

- The proposal is for ‘preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment’;
- There is no satisfactory alternative; and
- The action authorised by the license will not be detrimental to the maintenance of bat populations at a favourable conservation status in their natural range.

A bat roost is defined as “any structure or place, which any wild bat uses for shelter or protection.” Bats tend to re-use the same roosts; therefore, legal opinion is guided by recent case law precedents, that a roost is protected whether or not the bats are present at the time. This can include all summer roosts,



used for breeding, resting or sheltering and all winter roosts used for hibernating.



## **APPENDIX 2 – Reducing Impacts of Artificial Light**

Bright external lighting can have a detrimental impact upon foraging and commuting bat flight paths, but more importantly can also cause bats to remain in their roosts for longer. Artificial lighting can also cause significant impacts on other nocturnal species, most notably moths and other nocturnal insects. It can also result in disruption of the circadian rhythms of birds, reducing their fitness. Guidelines issued by the Bat Conservation Trust<sup>3</sup> should be considered while designing the lighting scheme. A simple process which should be followed where the impact on bats is being considered as part of a proposed lighting scheme. It contains techniques which can be used on all sites, whether a small domestic project or larger mixed-use, commercial or infrastructure development. This includes the following measures:

### **Avoid lighting on key habitats and features altogether**

there is no legal duty requiring any place to be lit. British Standards and other policy documents allow for deviation from their own guidance where there are significant ecological/environmental reasons for doing so. It is acknowledged that in certain situations lighting is critical in maintaining safety, such as some industrial sites with 24-hour operation. However, in the public realm, while lighting can increase the perception of safety and security, measurable benefits can be subjective. Consequently, lighting design should be flexible and be able to fully consider the presence of protected species

### **Apply mitigation methods to reduce lighting to agreed limits in other sensitive locations – lighting design considerations**

Where bat habitats and features are considered to be of lower importance or sensitivity to illumination, the need to provide lighting may outweigh the needs of bats. Consequently, a balance between a reduced lighting level appropriate to the ecological importance of each feature and species, and the lighting objectives for that area will need to be achieved. The following are techniques which have been successfully used on projects and are often used in combination for best results;

- Dark buffers, illuminance limits and zonation
- Sensitive site configuration, whereby the location, orientation and height of newly built structures and hard standing can have a considerable impact on light spill
- Consider the design of the light and fittings, whereby the spread of light is minimised ensuring that only the task area is lit. Flat cut-off lanterns or accessories should be used to shield or direct light to where it is required. Consider the height of lighting columns. It should be noted that a lower mounting height is not always better. A lower mounting height can create more light-spill or require more columns. Column height should be carefully considered to balance task and mitigation measures. Consider no lighting solutions where possible such as white lining, good signage, and LED cat's eyes. For example, light only high-risk stretches of roads, such as crossings and junctions, allowing headlights to provide any necessary illumination at other times.
- Screening, whereby light spill can be successfully screened through soft landscaping and the installation of walls, fences and bunding
- Glazing treatments, whereby glazing should be restricted or redesigned wherever the ecologist and lighting professional determine there is a likely significant effect upon key bat habitat and features.
- Creation of alternative valuable bat habitat on site, whereby additional or alternative bat flightpaths, commuting habitat or foraging habitat could result in appropriate compensation for

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<sup>3</sup> Bat Conservation Trust and Institute for Lighting Professionals (2018) Guidance note 8. Bats and Artificial Lighting. <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>



any such habitat being lost to the development.

- Dimming and part-night lighting. Depending on the pattern of bat activity across the key features identified on site it may be appropriate for an element of on-site lighting to be controlled either diurnally, seasonally or according to human activity. A control management system can be used to dim (typically to 25% or less) or turn off groups of lights when not in use.

**Demonstrate compliance with illuminance limits and buffers**

- *Design and pre-planning phase*; It may be necessary to demonstrate that the proposed lighting will comply with any agreed light-limitation or screening measures set as a result of your ecologist's recommendations and evaluation. This is especially likely to be requested if planning permission is required.
- *Baseline and post-completion light monitoring surveys*; baseline, pre-development lighting surveys may be useful where existing on or off-site lighting is suspected to be acting on key habitats and features and so may prevent the agreed or modelled illuminance limits being achieved.
- *Post-construction/operational phase compliance-checking*



**Further reading:**

Buglife (2011) *A review of the impact of artificial light on invertebrates*.

Royal Commission on Environmental Pollution (2009) *Artificial light in the environment*. HMSO, London.  
Available at: <https://www.gov.uk/government/publications/artificial-light-in-the-environment>

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at: <http://www.cpre.org.uk/resources/countryside/dark-skies/item/3608-shedding-light>

Planning Practice Guidance guidance (2014) *When is light pollution relevant to planning?* Available  
at: <https://www.gov.uk/guidance/light-pollution>

Institution of Lighting Professionals (2011) *Guidance Notes for the Reduction of Obtrusive Light*  
GN01:2011. Available at: <https://www.theilp.org.uk/resources/free-resources/>