



# BAT PRELIMINARY ROOST ASSESSMENT CRIEFF RD LIDL RAPLEYS LLP

8/03/2022

# **Gavia Environmental**



www.gavia-environmental.co.uk

Report prepared forDaniel Wheelright<br/>8A Rutland Square<br/>Edinburgh<br/>EH3 8EGProject nameCrieff Rd LidlProject numberP22071Prepared byJill MayberryApproved byAndrew Taylor

#### **Revision History**

| Revision | Date       | Comments     | Reviewed | Approved |
|----------|------------|--------------|----------|----------|
| 1        | 10/03/2022 | See comments |          | AT       |
| 2        |            |              |          |          |
| 3        |            |              |          |          |

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# Executive Summary

Gavia Environmental Ltd. (GEL) was commissioned by, Rapleys LLP ("the client") on behalf of Lidl Great Britain Ltd to undertake a Bat Preliminary Roost Assessment (PRA) at a location on Crieff Rd, Perth ("the Site"). The Site is located at approximate national grid reference NO 09228 24956, in the centre of Perth, Scotland.

The purpose of the PRA was to determine if the trees present on site had features which could support roosting bats and determine if further survey work was necessary to determine the use of such features by bats.

The survey was completed by experienced surveyors Kiera Hamilton and Jill Mayberry, on the 4<sup>th</sup> of March 2022 in near clear weather conditions with good visibility.

The PRA found 12 trees with negligible roost potential, 11 trees with 'low' roost potential and 2 trees with 'moderate' roost potential. Trees assigned negligible are not constrained by further survey requirements. Trees assigned low are recommended to undergo soft felling, with sections containing suitable features to be left on the ground for at least 24 hours to allow for any bats present to vacate safely. Tree with tag number 5227, which is planned to be felled, contained features with moderate suitability and therefore is recommended to undergo a further climb and inspect survey within one week of works commencing. If no indicators of bats are present the features are to be filled allowing felling to commence with no supervision.

Tree with tag number 5224 was labelled as moderate but is not planned to be felled therefore will not be constrained by further survey requirements. Ideally, a 10m disturbance buffer should be applied to mitigate against disturbance of any potential roosting bats.



# 1 Introduction

#### 1.1 Aims and Objectives

Gavia Environmental Ltd. (GEL) was commissioned by, Rapleys LLP ("the client") on behalf of Lidl Great Britain Ltd to undertake a Bat Preliminary Roost Assessment (PRA) at a location on Crieff Rd, Perth ("the Site"). The Site is located at approximate national grid reference NO 09228 24956, in the centre of Perth, Scotland.

The purpose of the PRA was to determine if the trees present on site had features which could support roosting bats and determine if further survey work was necessary to determine the use of such features by bats.

### 1.2 Site Description

The Site is located north of Crieff Road, in the centre of Perth at NO 09228 24956. To the north of the Site is St Johnstone Football Club grounds and McDiarmid Park. To the east and south of the Site is the A85 residential properties, commercial and industrial units.

#### 1.3 Legislation

Refer to Appendix A for full legislation for bats and nesting birds.

### 2 Methodology

# 2.1 Desk study

A desk study was undertaken to provide up to date ecological information on statutory designated Sites with ecological qualifying features and protected bat species within 2km of the survey area. The following sources were used:

A search of publicly available information of the National Biodiversity Network (NBN) available for commercial purposes for evidence of protected species.

NatureScot SiteLink for statutory and non-statutory designated Sites within 2km of the Site.

# 2.2 Preliminary Roost Assessment (PRA)

Trees on Site were inspected visually from the ground, using binoculars, by a suitable experienced ecologist, to assess their potential for use by roosting bats and to record field signs for roosting bats. Field signs include any gaps, cavities or cracks around the trunk or secondary branches of the tree that could be suitable for roosting bats. Information collected about potential roost features included the height of the feature, the orientation of the feature and brief description which was used to assign a roost potential category. The tree tag numbers were used for reference.

Definitions of 'Low', 'Moderate' and 'High' roost potential are given in Table 1 below, adapted from the BCT Bat Surveys for Professional Ecologists Guidelines (Collins, 2016).

| Suitability | Description of Roosting Habitat   |
|-------------|---|
| Negligible  | Negligible habitat features on Site likely to be used by roosting bats  |
| Low         | A tree of sufficient size and age to contain PRF's but with none seen from the ground or features seen with only very limited roosting potential. |

Table 1: Guidelines for assessing the potential suitability of trees for bats



| Suitability | Description of Roosting Habitat  |
|-------------|--|
| Moderate    | A tree 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.   |
| High        | A tree with one or more potential roost Sites that are obviously suitable for use by larger<br>numbers of bats on a more regular basis and potentially for longer periods of time due to<br>their size, shelter, protection, conditions and surrounding habitat. |

#### 2.3 Limitations

The survey was carried out in clear weather conditions. However, the survey was undertaken out with the optimal season for trees, therefore, tree species are harder to identify. This is not thought to pose any sort of constraint due to the surveyor's experience and knowledge.

#### 3 Results

#### 3.1 Desk study

There were no designated sites found within the Site boundary. However, one designation were found within the 2km buffer:

The River Tay Special Area of Conservation (SAC) was designated for Atlantic salmon (*Salmo salar*), Brook lamprey (*Lampetra planeri*), River lamprey (*Lampetra fluviatilis*), Sea lamprey (*Petromyzon marinus*), Otter (*Lutra lutra*) and Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels. It is approximately 1.8km northwest of the Site. NatureScot site code: 8366 and EU site code: UK0030312.

Although this area of designation was found within the 5km buffer boundary, this information is not discussed further in this report as this area is not protected for bats.

No results from the NBN for bat species were found within the Site itself. Table 2 outlines the results for bat species that were found within the 2km buffer in the last 5 years. No indication was given if these observations are of roost or individual species sightings.

Table 2: NBN Atlas results of protected species found within 2km of the Site in the past 5 years

| Species  | Number of records | Last date  |
|--|-------------------|------------|
| Soprano pipistrelle ( <i>Pipistrellus pygmaeus</i> ) | 2                 | 21/02/2019 |

#### 3.2 Bat Preliminary Roost Assessment

The PRA found 12 trees with negligible roost potential, 11 trees with low roost potential and 2 trees with moderate roost potential. Table 3 provides descriptions of the features found. The coniferous trees bordering the road entering the Site were inspected but found to have no roost potential due to age, height and trunk thickness.



# Table 3: Summary of PRA on trees within the Site

| Tree<br>tag<br>number | Species             | Height<br>(m) | GPS                  | Description  | Roosting<br>potential | Photo<br>reference |
|-----------------------|---------------------|---------------|----------------------|--|-----------------------|--------------------|
| 5225                  | Sycamore            | 20            | NO<br>09181<br>24899 | Cavity on western side of trunk<br>at 3m<br>Cavity on western side of                      | Low                   | 1                  |
|                       |                     |               |                      | secondary branch at 5m   |                       |                    |
| 5226                  | Sycamore            | 20            | NO<br>09178<br>24404 | Cavity on western side trunk at<br>4m  | Low                   | 2                  |
| 5227                  | Sycamore            | 20            | NO<br>09175<br>24910 | Cavity on southern side of trunk<br>at 3m, appears to go back and<br>down.                 | Moderate              | 3                  |
|                       |                     |               |                      | Cavity on western side of trunk<br>at 4m, appears to go back and<br>down.                  |                       |                    |
|                       |                     |               |                      | Cavity on northern side of trunk at 4m   |                       |                    |
| 5228                  | Sycamore            | 13            | NO<br>09173<br>24922 | Large cavity on eastern side of<br>trunk at 2m, climbed and<br>inspected – no potential    | Negligible            | -                  |
| 5229                  | Pedunculate<br>Oak  | 27            | NO<br>09170<br>24925 | Fallen off branch with rot back on eastern side at 7m.                                     | Low                   | 4                  |
| 5230                  | Sycamore            | 19            | NO<br>09168<br>24930 | Small cavity on southern side, seems to go further back.                                   | Low                   | 5                  |
|                       |                     |               |                      | Small cavity on southwestern side at 5m, goes back and up.                                 |                       |                    |
| 5231                  | Silver Birch        | 13            | NO<br>09166<br>24937 | NA   | Negligible            | -                  |
| 5232                  | Sycamore            | 23            | NO<br>09166<br>24948 | NA   | Negligible            | -                  |
| 5233                  | Sycamore            | 16            | NO<br>09160<br>24959 | Cavity on western side of secondary branch at 4m   | Low                   | 6                  |
| 5234                  | Sycamore            | 16            | NO<br>09153<br>24974 | Cavity on western side of secondary branch at 10m  | Low                   | 7                  |
| 5235                  | Lawson's<br>Cypress | 23            | NO<br>09167<br>24969 | Crack in trunk at 2m on northern<br>side, climbed an inspected, hole<br>goes further back. | Low                   | 8                  |
| 5244                  | Beech               | 20            | NO<br>09194<br>25020 | Cavity on secondary branch on north side at 5m.  | Moderate              | 9                  |
|                       |                     |               |                      | at 7m, goes in and down.   |                       |                    |



| Tree<br>tag<br>number | Species            | Height<br>(m) | GPS                  | Description   | Roosting<br>potential | Photo<br>reference |
|-----------------------|--------------------|---------------|----------------------|---|-----------------------|--------------------|
|                       |                    |               |                      | Fallen branch on northern side at 9m.   |                       |                    |
|                       |                    |               |                      | Cavity on western side at 8m, goes in and down                                |                       |                    |
|                       |                    |               |                      | Fallen branch on southern side at 15m   |                       |                    |
| 5245                  | Ash                | 19            | NO<br>09187<br>25028 | Fallen branch leaving cavity on<br>western side on secondary<br>branch at 10m | Low                   | 10                 |
|                       |                    |               |                      | Large cavity on eastern side of trunk   |                       |                    |
| 5246                  | Pedunculate<br>Oak | 20            | NO<br>09183<br>25026 | NA  | Negligible            | -                  |
| 5247                  | Sycamore           | 17            | NO<br>09176<br>25028 | Small crack in trunk on southern side at 4m                                   | Low                   | 11                 |
| 5248                  | Sycamore           | 16            | NO<br>09169<br>25033 | Crack on eastern side of trunk at<br>1.5-3m                                   | Low                   | 12                 |
| 5249                  | Lime               | 23            | NO<br>09163<br>25034 | NA  | Negligible            | -                  |
| 5250                  | Lime               | 13            | NO<br>09183<br>25034 | NA  | Negligible            | -                  |
| 5251                  | Lime               | 27            | NO<br>09183<br>25037 | NA  | Negligible            | -                  |
| 5252                  | Ash                | 12            | NO<br>09181<br>25037 | NA  | Negligible            | -                  |
| 5253                  | Beech              | 20            | NO<br>09178<br>25034 | NA  | Negligible            | -                  |
| 5254                  | Lime               | 13            | NO<br>09178<br>25035 | Cavity on secondary branch on southern side at 10m                            | Low                   | 13                 |
| 5255                  | Ash                | 22            | NO<br>09174<br>25033 | NA  | Negligible            | -                  |
| 5256                  | Ash                | 20            | NO<br>09173<br>25036 | NA  | Negligible            | -                  |



| Tree<br>tag<br>number | Species | Height<br>(m) | GPS                  | Description | Roosting<br>potential | Photo<br>reference |
|-----------------------|---------|---------------|----------------------|-------------|-----------------------|--------------------|
| 5258                  | Lime    | 15            | NO<br>09163<br>25060 | NA          | Negligible            | -                  |

# 4 Conclusions and Recommendations

The trees assigned negligible are not constrained by further surveys. Where trees have been assigned as having low potential to support roosting bats, it is recommended that these be 'soft felled' and sections containing features with bat roost potential are left on the ground for 24 hours to allow any potential bats a chance to leave safely. Tree with tag number 5227 was deemed to have moderate suitability to support roosting bats and should be subject to further investigation by a climb and inspect survey. This should be done within one week of works commencing and, if no bats are found, the cavity should be filled. Tree 5244 was also assigned moderate suitability, however, since it is not planned to be felled as per the Caledon Tree Surveys BS5837 map no further surveys are required.

Any trees that are not being felled are not constrained by further survey requirements, however a 10m disturbance buffer should be applied on a precautionary basis to mitigate against disturbance of any potential roosting bats.



# References

Bat Conservation Trust (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition) is the essential reference guide for ecological consultants working on bat surveys.

National Biodiversity Network (2021). Available online at: https://nbnatlas.org/

NatureScot (2021). Sitelink. Available online at: https://Sitelink.nature.scot/map

The Mammal Society (2012). UK BAP Mammals: Interim Guidance for Survey Methodologies, Impact

# Appendix A: Legislation

# <u>Bats</u>

All bat species listed on Schedule 2 of the Conservation (Natural Habitats, &c.) Regulations 1994 as amended in Scotland, which transpose into Scottish Law in the European Community's Habitats Directive (92/43/EEC). Under the terms of Regulation 39(1), with certain exceptions, it is an offence to deliberately or recklessly:

• harass a wild bat or group of wild bats;

• to disturb a wild bat while it is occupying a structure or place which it uses for shelter; or protection;

• to disturb a wild bat while it is rearing or otherwise caring for its young;

• to obstruct access to a breeding Site or resting place of a wild bat, or otherwise to deny the bat use of the breeding Site or resting place;

• to disturb a wild bat in a manner that is, or in circumstances which are, likely to significantly affect the local distribution or abundance of the species to which it belongs;

• to disturb a wild bat in a manner that is, or in circumstances which are, likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young; or

• to damage or destroy a breeding Site or resting place of such an animal.

All the above protections apply regardless of the stage of the life of the animal in question. Of the 18 UK bat species, ten occur in Scotland: Common Pipistrelle (*Pipistrellus pipistrellus*), Soprano Pipistrelle (*P. pygmaeus*), Nathusius' Pipistrelle (*P. nathusil*), Natterer's (*Myotis nattereri*), Daubenton's (*M. daubentonil*), Noctule (*Nyctalus noctule*), Brown long-eared bat (*Plecotus auratus*), Leisler's (*N. leisleri*), Whiskered (*M. mystacinus*), and Brandt's (*M. brandtil*) bats.

# <u>Birds</u>

All wild birds in Great Britain are protected under the Wildlife and Countryside Act 1981 (as amended). This includes even common species like pigeons Columbidae and blackbirds



Turdus merula. Further protection is given to some rarer species and to species vulnerable to disturbance and/or persecution. This is done through various schedules attached to the Act. For any wild bird species, it is an offence to intentionally or recklessly:

- kill, injure or take a bird;
- take, damage, destroy or interfere with a nest of any bird while it is in use or being built;
- obstruct or prevent any bird from using its nest; or
- take or destroy the egg of any wild bird





# Appendix B: Trees with Potential Bat Roosting Features Map



Appendix C: Site photographs



Photo 1 - Tree 5225 with cavity on western side

Bat Preliminary Roost Assessment





Photo 2 - Tree 5226 cavity on western side of trunk





Photo 3 – Tree 5227 multiple cavities on trunk. Tree deemed moderate suitability





Photo 4 Tree 5229





Photo 5 – Tree 5230





Photo 6 – Tree 5233 cavity on western side of secondary branch





Photo 7 – Tree 5234 cavity on western side off secondary branch





Photo 8 – Tree 5235 Large crack in northern side of trunk

Bat Preliminary Roost Assessment





Photo 9 – Tree 5244 multiple cavities in trunk and secondary branches





Photo 10 – Tree 5245 large cavity on eastern side

Bat Preliminary Roost Assessment





Photo 11 – Tree 5247 small cracks on southern side of trunks





Photo 12 – Tree 5248 crack one astern side of trunk





Photo 13 – Tree 5254 cavity on secondary branch on southern side