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BAT ACTIVITY SURVEY REPORT

LANDORE COURT, CHARLES STREET, CARDIFF

AVISON YOUNG

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Client:	Avison Young
Site/Job:	Landore Court, Charles Street, Cardiff
Report title:	Bat Activity Survey Report
Report reference:	WWE12345 BAS Rev B

Grid Reference:	ST 18650 76376
Survey date(s):	23/05/2019
Surveyed by:	Julie Player; Emma Douglas; Jody Webb
Architect/Agent:	
Planning reference:	

VERSIONING AND QUALITY ASSURANCE

Rev	Status	Date	Author(s)	Reviewed by	Approved by
A	Draft	26/05/2019	Alex Pollard MCIEEM Principal Ecologist		Alex Pollard MCIEEM Principle Ecologist
B	Final	19/06/2019			Alex Pollard MCIEEM Principal Ecologist

DISCLAIMER

This document has been prepared by Wildwood Ecology Limited for Avison Young solely as a Bat Activity Survey Report. Wildwood Ecology Limited accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

The evidence which we have prepared and provided is true, and has been prepared and provided in accordance with the guidance of The Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

SUMMARY

Purpose	<ul style="list-style-type: none">• Wildwood Ecology was commissioned by Avison Young (the client) to undertake a series of bat activity surveys) of Landore Court, Charles Street, Cardiff.• The site is the subject of a planning application which involves the demolition of the current structure and replacement with a new building, for circa 150 residential apartments.
Work Undertaken	<ul style="list-style-type: none">• A dusk bat activity survey was undertaken in line with the Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edn (2016).
Key issues	<ul style="list-style-type: none">• No bat roosts were found onsite.
Recommendations	<ul style="list-style-type: none">• Works may commence to demolish the building at any time.• Enhancement features for bats and birds are recommended.
Conclusions	<ul style="list-style-type: none">• Providing that the recommendations outlined within this report are successfully implemented, it should be possible for the proposed development to proceed and for there to be a net benefit to biodiversity at the site.• This ecological report will remain valid for a period of 18 months from the date of the last survey – i.e. until November 2020.

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1 INTRODUCTION

- 1.1 Wildwood Ecology was commissioned by Avison Young (the client) to undertake a bat activity survey at Landore Court, Charles Street, Cardiff (the site) centred at grid reference ST 18650 76376.
- 1.2 A preliminary roost assessment (PRA) for bats and nesting birds was undertaken at the site on the 07/09/2018. This found the buildings affected by the development to have low bat roost suitability. Further bat activity surveys (x1) were therefore recommended. The survey (dusk emergence) was undertaken on the 23/05/2019.
- 1.3 This report should be read in conjunction with WWE18202 (Landore Court, PRA report) which outlines the potential roost features present on the building and the results of a desk study that was undertaken.

Purpose of this report

- 1.4 This report aims where possible to provide sufficient information for the local planning authority to fully assess the potential ecological impacts of the proposed development, or alternatively, to identify what further information is required to fully inform the scheme.
- 1.5 The results of the bat activity survey have been used to establish the need for, and extent of, any mitigation or compensation measures required as part of the proposed development.

2 METHODOLOGY

Bat activity surveys (dusk emergence)

- 2.1 A single bat activity survey (dusk emergence survey) was / were undertaken at the onsite building.
- 2.2 The dusk emergence survey(s) commenced approximately 15 minutes before the time of local sunset (source www.sunrisesunsetmap.com) and continued for approximately 1.5 hours after sunset.
- 2.3 Surveyors were equipped with broadband bat detectors (Elekon BatScanner Stereo). Elekon Batloggers was also deployed to record bat activity across the site.
- 2.4 Note was made of all bat activity recorded including (where appropriate) roost access points, species, time of re-entry, direction of flight, behaviour (foraging or commuting) and use of landscape features. Minimal lighting was used during the surveys as this can alter the behaviour of the bats emerging from or entering a roost, or foraging or commuting over a site.

Surveyor information

- 2.5 The activity survey was led by Julie Player, assisted by Emma Douglas and Jody Webb. See Table 1 for further information.

Table 1 – Surveyor information.

Surveyor	Licences	Ecological experience
Julie Player B.Sc. (Hons) MCIEEM Senior Ecologist	Bat Dormouse GCN	Holds a first-class honours degree in International Wildlife Biology. Experience in working for ecological consultancies since 2012. Experienced in undertaking bat, dormouse, reptile and great crested newt surveys. Is a licensed bat, dormouse and great crested newt surveyor in England and Wales.
Survey assistants Emma Douglas, Jody Webb	-	All survey assistants received training in use of bat detectors and survey methodologies. Deemed competent and confident to use bat detectors to observe bats in flight and conduct an emergence/re-entry survey in conjunction with a licenced ecologist. Assistants backed up by experienced surveyors and/or recording detectors where possible.

Limitations and assumptions

- 2.6 No limitations were encountered or assumptions made and it is considered that, with the access gained and recording undertaken, an accurate assessment of the site's ecological value was made.

3 RESULTS

Bat activity surveys (dusk emergence)

Timing and conditions

3.1 The survey timings and weather conditions during the activity surveys can be seen in Table 2.

Table 2 – Summary of survey timing and conditions during activity surveys.

Date	Type	Survey Timing			Conditions			
		Start	End	Sunset / Sunrise	Temp [°C]	Cloud Cover [Oktas]	Wind Speed [Beaufort]	Rain
23/05/2019	Dusk emergence	20:54	22:39	21:09	<i>Start:17 End: 17</i>	<i>Start:4 End: 2</i>	<i>Start: 2 End: 1</i>	Nil

3.2 The results of the bat activity survey(s) (dusk emergence / pre-dawn re-entry) are summarised in Table 3.

Table 3 – Bat activity survey results. SS±xx refers to the time in minutes before/after sunset and SR±xx refers to the time in minutes before/after sunrise.

Survey type and date	Roosts / points of particular interest	General observations
Dusk emergence 23/05/2019	<ul style="list-style-type: none"> o First bat heard at SS+23 (common pipistrelle), offsite o Likely emergence from adjacent building to north of site (common pipistrelle) 	<ul style="list-style-type: none"> o No activity on western aspect (well illuminated), low activity overall o Eastern aspect had several foraging common pipistrelles over car park and around vegetation to northern boundary

3.3 Bat flight lines in and around the site can be seen in Appendix II

4 INTERPRETATION AND ASSESSMENT

4.1 The following interpretation and assessment is provided to ensure full compliance with both UK and European legislation and both local and national planning policy (see Appendix IV).

Bat activity surveys (dusk emergence)

- 4.2 No bat roosts were confirmed within the onsite building(s).
- 4.3 The building to the north (offsite, Quaker House) is likely to be a roost for individual/small numbers of common pipistrelle.
- 4.4 The vegetation along the northern boundary of the site was used by foraging common pipistrelles. This vegetation is likely to be important as there is very little within the local area, and it provides both a stepping stone for commuting but also a foraging resource.
- 4.5 There is a planning application to extend the adjacent property (Quaker House) with the loss of the vegetation used for foraging purposes.
- 4.6 There are known roosts within the city centre for pipistrelle species in areas with no immediate vegetation cover. The likely result of the loss of vegetation will be that bats will need to forage elsewhere. The nearest green corridor is found along the railway line (approximately 200m to the south-east) with further linkages to green spaces along this corridor.
- 4.7 The western aspect of the building is well illuminated. The eastern aspect (and northern and southern) are not well lit, with only offsite security lights present.
- 4.8 The dark corridor area to the east of the site is valuable for commuting bats in a local context given the prevalence of artificial lighting in the city centre.
- 4.9 However, the bats that are present are a species that does tolerate artificial light more than others, and that the individuals will cross lit areas to reach sufficient local foraging areas already. The proposed development will result in there being additional lighting in the area from window light spill, and whilst this will further discourage light sensitive species from the area, the small numbers of light tolerant species present will not be significantly impacted.
- 4.10 In the absence of mitigation there will not be a negative impact on any bat species roosts as a result of the proposed development of the site. There are likely to be minor negative impacts through increases in lighting.

Nesting birds

- 4.11 No nesting birds were observed during the survey.
- 4.12 It is possible that if works are not carried out this season, birds may nest on the roof in subsequent seasons and may be impacted by works at that time.
- 4.13 In the absence of mitigation, there may be a negative impact on bird species as a result of the proposed development of the site.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 Wildwood Ecology was commissioned by Avison Young (the client) to undertake bat activity surveys (dusk emergence / pre-dawn re-entry) for bats at Landore Court, Charles Street, Cardiff.

5.2 The site is the subject of a planning application building

Bat activity surveys (dusk emergence and pre-dawn re-entry)

5.3 No bat roosts were confirmed within the onsite building(s).

5.4 In the absence of mitigation there will not be a negative impact on bat species as a result of the proposed development of the site.

5.5 A European Protected Species licence (EPSL) will therefore not be required for this site and works may proceed with no further consideration for roosting bats.

Biodiversity enhancement

5.6 Local Authorities have a duty (known as the 'Biodiversity and resilience of ecosystems duty') under the Environment (Wales) Act 2016 to seek to maintain **and enhance** biodiversity in the exercise of their functions.

5.7 Where possible the existing onsite habitat will be retained to ensure that species are not adversely affected by the development. Native species of local provenance will be used for any new planting on the site to support The Action Plan for Pollinators in Wales, 2013 (<http://gov.wales/docs/desh/publications/130723pollinator-action-plan-en.pdf>).

5.8 Bird nesting boxes and bat roosting boxes should be incorporated within the newly constructed building. We would initially recommend the following for this site, though others are available with different facings to compliment the scheme:

- Bats - http://www.nhbs.com/habibat_bat_box_custom_brick_facing_tefno_183578.html
- Swift - <https://manthorpebuildingproducts.co.uk/product/gswb-swift-nest-brick>

5.9 Swift boxes should be placed at a height of no lower than 5m, preferably at the eaves. The bat box can be also installed at this height.

5.10 Boxes should be situated with no windows directly below, and no direct illumination upon them.

5.11 These boxes will need no maintenance, though if any maintenance works are proposed that may affect nesting birds, they will need to be carried out between September and March (inclusive), or outside this period after consultation with a suitably qualified ecologist. If works are proposed that may impact the bat box, again, consultation with a licenced bat ecologist is advised.

5.12 We recommend that some green areas are incorporated into the design (e.g. window boxes, roof garden, standard trees). These would provide excellent stepping stones for invertebrates and be supportive of pollinators within the city.

Overall conclusion

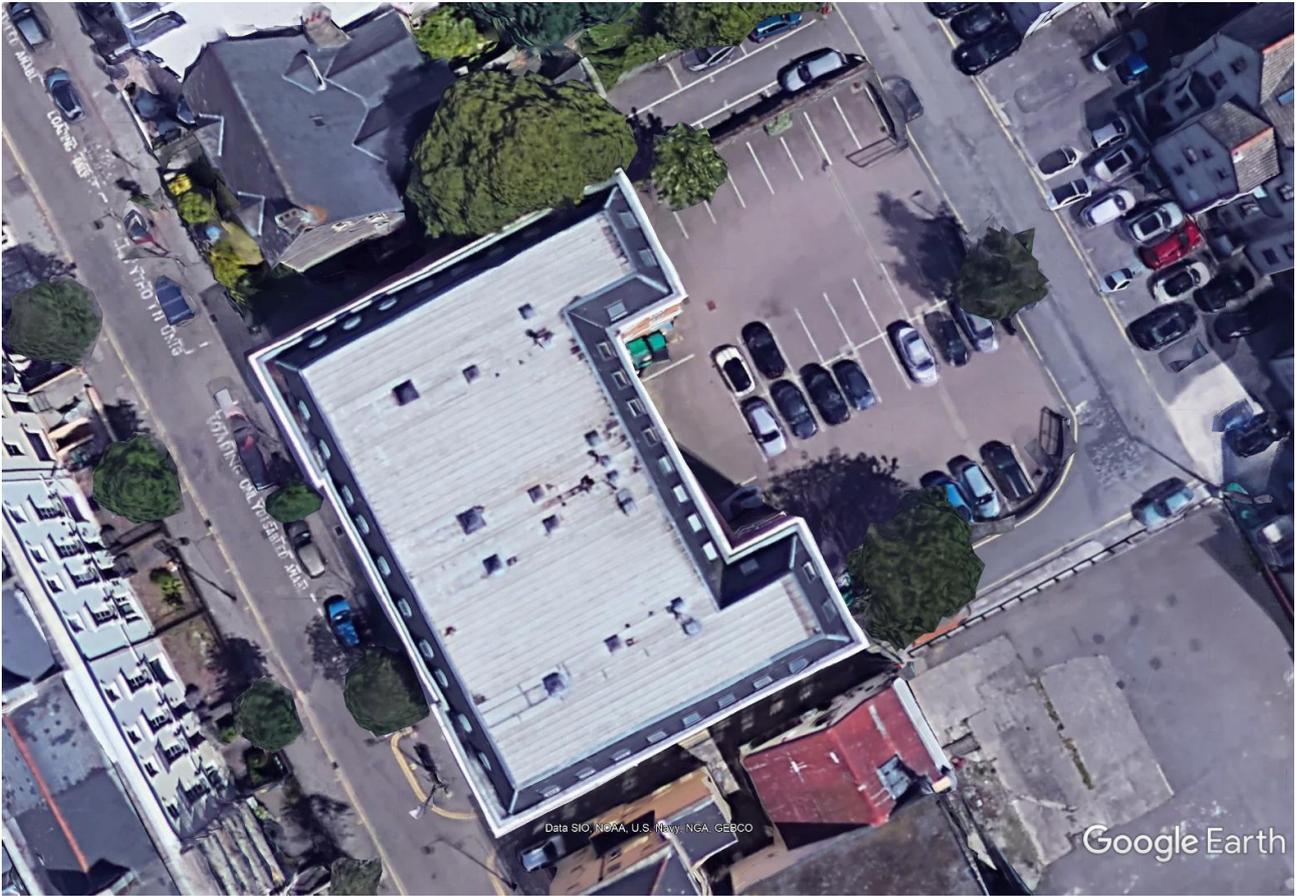
5.13 Providing that the recommendations outlined within this report are successfully implemented, it should be possible for the proposed development to proceed and for there to a net biodiversity gain.

This ecological report will remain valid for a period of 18 month from the date of the last survey – i.e. until November 2020. Further surveys may be required to update the site information if planning is not obtained or works do not commence within that time period.

6 REFERENCES

- Bat Conservation Trust and the Institution of Lighting Professionals (2018) Bats and artificial lighting in the UK; *Bats and the Built Environment* series (Guidance Note 08/18), The Bat Conservation Trust, London.
- Collins, J. (ed.) (2016) Bat surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.
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- Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey; A technique for environmental audit. Reprinted by JNCC, Peterborough.
- Mitchell-Jones, A.J. & McLeish, A.P. Ed., (2004) 3rd Edition Bat Workers' Manual. Joint Nature Conservation Committee, Peterborough.
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- Wray, S., Wells, D., Long, E. & Mitchell-Jones, T. (2010) Valuing bats in ecological impact assessment. In Practice, No 70, Institute of Ecology and Environmental Management.

APPENDIX I: SITE PLAN



APPENDIX II: ACTIVITY SURVEY PLAN



APPENDIX IV: SPECIES LIST

To be submitted to the appropriate Local Records Centre

Site Name: Landore Court, Charles Street, Cardiff **Provided by:** Wildwood Ecology
Grid ref: ST 18650 76376 **Verified by:** Alex Pollard

Common name	Scientific Name (if known)	Number	Comment
Common pipistrelle	<i>Pipistrellus pipistrellus</i>		Foraging/commuting passes; roost likely in Quaker House

APPENDIX V: PLANNING POLICY AND LEGISLATION

The following local and national planning policy and both primary and European legislation relating to nature conservation and biodiversity status are considered of relevance to the current proposal.

Planning and biodiversity

The following local and national planning policy and both primary and European legislation relating to nature conservation and biodiversity status are considered of relevance to the current proposal.

Planning and biodiversity

Local Authorities have a requirement to consider biodiversity and geological conservation issues when determining planning applications under the following planning policies.

Planning Policy Wales (2018) and Technical Advice Note 5 (2009)

Planning Policy Wales (Edition 10, December 2018) sets out the land use planning policies of the Welsh Government, integrating the Environment (Wales) Act (2016) within these. The advice contained within Planning Policy Wales (PPW) is supplemented for some subjects by Technical Advice Notes (TAN's).

TAN 5 (Welsh Government, 2009) specifically provides advice about how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. The TAN provides advice for local planning authorities on the key principles of positive planning for nature conservation; nature conservation and Local Development Plans; nature conservation in development management procedures; development affecting protected internationally and nationally designated sites and habitats; and development affecting protected and priority habitats and species.

Under Section 2.4 within the TAN 5, 'when deciding planning applications that may affect nature conservation local planning authorities should':

- Pay particular attention to the principles of sustainable development, including respect for environmental limits, applying the precautionary principle, using scientific knowledge to aid decision making and taking account of the full range of costs and benefits in a long term perspective;
- Contribute to the protection and improvement of the environment, so as to improve the quality of life and protect local and global ecosystems, seeking to avoid irreversible harmful effects on the natural environment;
- Promote the conservation and enhancement of statutorily designated areas and undeveloped coast;
- Ensure that appropriate weight is attached to designated sites of international, national and local importance;
- Protect wildlife and natural features in the wider environment, with appropriate weight attached to priority habitats and species in Biodiversity Action Plans;
- Ensure that all material considerations are taken into account and decisions are informed by adequate information about the potential effects of development on nature conservation;
- Ensure that the range and population of protected species is sustained;
- Adopt a step-wise approach to avoid harm to nature conservation, minimise unavoidable harm by mitigation measures, offset residual harm by compensation measures and look for new opportunities to enhance nature conservation; where there may be significant harmful effects local planning authorities will need to be satisfied that any reasonable alternative sites that would result in less or no harm have been fully considered;

Legislation and biodiversity

Certain species of animals and plants found in the wild in the UK are legally protected from being harmed or disturbed. These species are listed in the Wildlife and Countryside Act 1981 (as amended) or are named as European Protected Species (EPS) in the Conservation of Habitats and Species Regulations 2010 (as amended). These two main pieces of legislation have been consulted when writing this report and are therefore described in detail within this section.

Other relevant legislation and policy documents that have been consulted include – The Environment (Wales) Act 2016; The Countryside and Rights of Way Act 2000; The Hedgerow Regulations 1997; Biodiversity Action Plans, both UK-wide (UKBAP) and Local plans (LBAPs), and The National Planning Policy Framework (NPPF).

There is also legislation that legally protects certain animals - for example, the Protection of Badgers Act (1992) protects badgers and their setts, and the Deer Act (1991) places restrictions on actions that can be taken against deer species.

Environment (Wales) Act 2016

Section 6 of the Act places a duty on public authorities to 'seek to maintain and enhance biodiversity' so far as it is consistent with the proper exercise of those functions. In so doing, public authorities must also seek to 'promote the resilience of ecosystems'. The duty replaces the section 40 duty in the Natural Environment and Rural Communities Act 2006 (NERC Act 2006), in relation to Wales, and applies to those authorities that fell within the previous duty.

Public authorities will be required to report on the actions they are taking to improve biodiversity and promote ecosystem resilience.

Section 7 replaces the duty in section 42 of the NERC Act 2006. The Welsh Ministers will publish, review and revise lists of living organisms and types of habitat in Wales, which they consider are of key significance to sustain and improve biodiversity in relation to Wales.

The Welsh Ministers must also take all reasonable steps to maintain and enhance the living organisms and types of habitat included in any list published under this section, and encourage others to take such steps.

Wildlife & Countryside Act 1981 (as amended)

The Wildlife & Countryside Act 1981 (as amended) [WCA] is the primary legislation for England and Wales for the protection of flora, fauna and the countryside. Part I within the Act deals with the protection of wildlife.

Most European Protected Species offences are now covered under the Conservation of Habitats and Species Regulations (see below), but some 'intentional' acts are still covered under the WCA, such as obstructing access to a bat roost.

The WCA prohibits the release to the wild of non-native animal species listed on Schedule 9 (e.g. Signal Crayfish and American Mink). It also prohibits planting in the wild of plants listed in Schedule 9 (e.g. Japanese Knotweed and Rhododendron ponticum) or otherwise deliberately causing them to grow in the wild. This is to prevent the release of invasive non-native species that could threaten our native wildlife.

The provisions relating to animals in the Act only apply to 'wild animals'; these are defined as those that are living wild or were living wild before being captured or killed. It does not apply to captive bred animals being held in captivity.

There are 'defences' provided by the WCA. These are cases where acts that would otherwise be prohibited by the legislation are permitted, such as the incidental result of a lawful operation which could not be reasonably avoided, or actions within the living areas of a dwelling house.

Licensing: certain prohibited actions under the Wildlife and Countryside Act may be undertaken under licence by the proper authority. For example scientific study that requires capturing or disturbing protected animals can be allowed by obtaining a licence – e.g. bat surveys.

Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) (which are the principal means by which the EC Habitats Directive is transposed in England and Wales) update the legislation and consolidate all the many amendments which have been made to the Regulations since they were first made in 1994.

These regulations provide for the:

- protection of European Protected Species [EPS] (animals and plants listed in Annex IV Habitats Directive which are resident in the wild in Great Britain) including bats, dormice, great crested newts, and otters;
- designation and protection of domestic and European Sites - e.g. Site of Special Scientific Interest [SSSI] and Special Area of Conservation [SAC]; and
- adaptation of planning controls for the protection of such sites and species.

Public bodies (including the Local Planning Authority) have a duty to have regard to the requirements of the Habitats Directive in exercising their function – i.e. when determining a planning application.

There is no defence that an act was the incidental and unavoidable result of a lawful activity.

Licensing: it is possible for actions which would otherwise be an offence under the Regulations to be undertaken under licence issued by the proper authority. For example, where a European Protected Species has been identified and the development risks deliberately affecting an EPS, then a 'development licence' may be required.

Species protection

The following protected species information is relevant to this report. Legislation is only discussed in relation to planning and development; other offences may exist.

Bats

All British bats are classed as European Protected Species and therefore receive protection under the Conservation of Habitats and Species Regulations 2010 (as amended), making it an offence inter alia to:

- Deliberately kill, injure or capture a bat;
- Deliberately disturb bats;
- Damage or destroy a breeding site or resting place of a bat.

In addition, all British bats are also listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence to intentionally or recklessly:

- Obstruct access to any structure or place which any bat uses for shelter or protection; or
- Disturb any bat while occupying a structure or place which it uses for that purpose.

If proposed development work is likely to destroy or disturb bats or their roosts, then a licence will need to be obtained from Natural Resources Wales, which would be subject to appropriate measures to safeguard bats.

Birds

In the UK, the provisions of the Birds Directive are implemented through the Wildlife & Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2010 (as amended). All wild birds, their nests and eggs are protected it an offence to:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any such bird whilst it is in use or being built; or
- take or destroying an egg of any such wild bird.

The law covers all species of wild birds including common, pest or opportunistic species.

Special protection against disturbance during the breeding season is also afforded to those species listed on Schedule 1 of the Act.