



ISSUING OFFICE:

The Lodge
Caerphilly Business Park
Van Road
Caerphilly
CF83 3GG



T: 029 2002 2320

E: info@wildwoodecology.com
W: www.wildwoodecology.com

ECOLOGICAL IMPACT ASSESSMENT (BATS, NESTING BIRDS AND OTTER)

THE DRILL HALL, MERTHYR TYDFIL

MURPHY CORKE DEVELOPMENTS LTD

DOCUMENT REF: WWE20160 ECIA REV C | 14/04/2021

Client:	Murphy Corke Developments Ltd
Site/Job:	The Drill Hall, Merthyr Tydfil
Report title:	Ecological Impact Assessment (bats, nesting birds and otter)
Report reference:	WWE20160 EcIA Rev C

Grid Reference:	SO 04942 06493
Survey date(s):	PRA – 14/05/2020 Bat Activity Surveys – 28/05/2020 and 17/07/2020
Surveyed by:	Alex Wilson (PRA), Julie Player, Jenny O'Neil, Emma Douglas, Stephen Shutt, Marie Pugh and Jody Webb (Bat Activity Surveys)
Architect/Agent:	Paul Overton Architects
Planning reference:	N/A

VERSIONING AND QUALITY ASSURANCE

Rev	Status	Date	Author(s)	Reviewed by	Approved by
A	Draft	23/03/2021	Julie Player MCIEEM Senior Ecologist	Alex Wilson MCIEEM Principal Ecologist	Alex Wilson MCIEEM Principal Ecologist
B	FINAL	06/04/2021	Julie Player MCIEEM Senior Ecologist	Richard Dodd. CEcol MCIEEM Principal Ecologist	
C	FINAL	14/04/2021	Julie Player MCIEEM Senior Ecologist	Richard Dodd. CEcol MCIEEM Principal Ecologist	

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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	- Wildwood Ecology was commissioned by Murphy Corke Developments Ltd (the client) to undertake a preliminary roost assessment and a series of Bat Activity Surveys of The Drill Hall, Merthyr Tydfil. - The site is the subject of a planning application for the redevelopment of building into commercial units at the site.
Work Undertaken	- A PRA was undertaken consisting of a desk study and field survey undertaken in May 2020 following best practice in line with the Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edn (Collins 2016). - Two dusk bat activity surveys were undertaken in May and July 2020 following best practice in line with the Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edn (Collins 2016).
Key issues	- A single bat dropping characteristic of a brown long-eared bat was found in the workshop during the preliminary roost assessment. - Common pipistrelle (x7) and brown long-eared bat (x1) were recorded emerging/re-entering the building during the bat activity surveys. - Bats were also recorded foraging and commuting along the river located immediately south of the site. - The brook south of the site is suitable to support foraging and resting otters. - The building offers suitable access features to allow birds access into the structure and is suitable to support nesting birds.
Recommendations	Bats - A European Protected Species licence for bats must be obtained in order for the works to be legally undertaken. This will require the implementation of mitigation (timing of works, maintenance of roosts, supervision of high risk works by an ecologist) and compensation (provision of further roosting features within the building and maintenance of dark flight lines) measures. A lighting plan may be required. (see section 5 for mitigation proposals). Nesting Birds - If habitats suitable for nesting birds are to be removed (e.g in the building/ivy cover/scrub and trees around the boundary of the site), then any works will take place outside of the bird nesting season. In the event that clearance work has to be undertaken during the nesting season (generally from 1st March until 31st August, although birds are known to nest outside of these dates in suitable conditions), a breeding bird survey will be required and must be carried out by a suitably qualified person. Any active nests identified should be protected until the young have fledged. Where a Schedule 1 species (as defined in the Wildlife and Countryside Act - http://www.jncc.gov.uk/page-3614 is involved, compensation for impacts, e.g., loss of nesting sites, should be devised and implemented. - Compensation features will be installed on the structure. European Otter - No further otter surveys are required; however, mitigation is required to ensure that they are not impacted as part of the proposed development. - Pollution control measures will be required to prevent impacts upon otter habitat immediately south of the site that leads into the Taf Fawr SINC - Any trenching or excavation left uncovered overnight will include a means of escape for trapped animals i.e., plank set at 30°. - All chemicals, fuel, and materials to be stored safely in locked units away from animal access.

Conclusions	• 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 no long-term impacts upon the key protected species present 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 January 2022.
Addendum	• Following the issue of the report, the client reported that some works had started onsite with these include re-roofing and removal of vegetation around the structure. • As such it will be no longer possible to obtain an EPS licence as the roosts present are no longer in situ. • Amended mitigation and compensation measures are provided in an addendum to ensure that there are no impacts through long-term roost loss at the site.

CONTENTS

Summary	iii
List of figures	v
List of tables	vi
1 Introduction	1
2 Methodology	3
3 Results	6
4 Interpretation and Assessment	14
5 Conclusions and Recommendations	18
6 Addendum	21
7 References	23
APPENDIX I: Survey Images	24
APPENDIX II: Preliminary Roost Assessment and Bat Activity Survey Plan	27
APPENDIX III: Proposed Development	29
APPENDIX IV: Mitigation and Enhancement Plan (Original)	30
APPENDIX V: Mitigation and Enhancement Plan (Revised)	33
APPENDIX VI: Species list	35
APPENDIX VII: Planning policy and legislation	36

List of figures

Figure 1 - Aerial image of the site (red line shows the site boundary). Image used under licence (©2020 Google). Imagery date 28/05/2020.....	1
Figure 2 – Aerial image of the wider site (red line shows the site boundary). Image used under licence (©2020 Google). Imagery date 28/05/2020.	2
Figure 3 - Radiance levels at the site (red pin) are currently $22.52 \times 10^{-9} \text{ W cm}^{-2} \times \text{sr}$. www.lightpollutionmap.com VIIRS data 2020.	16
Figure 4 – northern elevation showing new roof covering (provided by client)	21
Figure 5 - southern elevation showing new roof covering (provided by client)	21
Figure 6 - Southern aspect of the building	24
Figure 7 - Brook immediately south of the old drill hall building.....	24
Figure 8 - Dense ivy growing on the building.....	24
Figure 9 – Northern aspect of the building (arrow showing slipped slates).....	24
Figure 10 - North western aspect of the building.....	25
Figure 11 - Western gable end of the building (arrows show locations that bats emerged from).....	25
Figure 12 - Inside workshop showing wooden beam roof structure	25

Figure 13 - Inside workshop	25
Figure 14 - Bat dropping located on a table in the workshop	25
Figure 15 – View of basement store access.....	25
Figure 16 – Upper floor office room (window to southern elevation)	26
Figure 17 – Eastern aspect of the structure with young sycamore present.....	26
Figure 18 – Preliminary roost assessment and bat activity survey plan	27
Figure 19 - Area to be retained as dark (no additional lighting)	28

List of tables

Table 1 – Sources of biodiversity and ecological records.....	3
Table 2 – Summary of guidelines for assessing the potential suitability of proposed development sites for bats (from Collins 2016).	4
Table 3 – Surveyor information.....	5
Table 4 – Summary of designated sites in range of the site.	6
Table 5 – Bat and roof-nesting bird species records found in the vicinity of the site within the last 10 years.	8
Table 6 – Summary of weather conditions during the PRA.....	9
Table 7 – Onsite building information.	9
Table 8 – PRA results.	10
Table 9 – Summary of survey timing and conditions during activity surveys.	11
Table 10 – 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.....	12
Table 11 - Details of bat roosts identified.....	13
Table 12 – Onsite building suitability for bats and nesting birds.	14
Table 13 – Value of the site for bats (from Wray et al 2010)	17

1 INTRODUCTION

- 1.1 Wildwood Ecology was commissioned by Murphy Corke Developments Ltd (the client) to undertake a preliminary roost assessment and Bat Activity Surveys at The Drill Hall, Merthyr Tydfil (the site) centred at grid reference SO 04942 06493.
- 1.2 A Preliminary Roost Assessment (PRA) for bats and nesting birds was undertaken at the site on the 14/05/2020. A bat dropping was found within a workshop in the building identifying it as a bat roost. The dropping was characteristic of a brown long-eared bat dropping. Further bat activity surveys (x2) were therefore recommended. The surveys (dusk emergence) were undertaken on the 28/05/2020 and the 17/07/2020.

Site description

- 1.3 The aerial image of the site (Figure 1) shows the site to consist of a large commercial unit located immediately north of a brook that leads into Taf Fawr south west of the site. Associated parking is located to the north and west of the site. The habitat immediately east, south and west of the site consists of dense scrub and trees.



Figure 1 - Aerial image of the site (red line shows the site boundary). Image used under licence (©2020 Google). Imagery date 28/05/2020.

- 1.4 The wider site consists of treelines along the brook, streets and parklands to the north, south, east and west. Residential estates are located north of the site with commercial and residential estates located to the south.



Figure 2 – Aerial image of the wider site (red line shows the site boundary). Image used under licence (©2020 Google). Imagery date 28/05/2020.

Proposed development

- 1.5 The site is the subject of a planning application for the development of commercial units within the building.

Purpose of this report

- 1.6 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.
- 1.7 The results of the preliminary roost assessment and bat activity surveys 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

Desk study

- 2.1 A biodiversity desk study was undertaken in relation to the site in March 2021 (LERC Ref-0201-804). The sources consulted and the type of information obtained are summarised in Table 1.

Table 1 – Sources of biodiversity and ecological records.

Source	Information requested (search buffer from site centre/boundary)
South East Wales Biodiversity Records Centre (SEWBRcC)	- Bats and roof-nesting birds only: - Bats (2km) - Roof nesting birds (0.15km)
Multi-Agency Geographic Information for the Countryside (MAGIC) ¹	- International statutory designations (5km) - National statutory designations (2km)

- 2.2 The search buffers are considered to be sufficient to cover the potential zone of influence (Zol²) of the proposed development.
- 2.3 The impact of the proposed development on the biological integrity of any nearby designated protected sites has been fully considered.
- 2.4 Data for bats and birds only was obtained from South East Wales Biodiversity Records Centre (SEWBRcC) as the proposals will only impact on the building, hence data for other species would be irrelevant.
- 2.5 No previous survey information was available for the site itself.

Field survey – Preliminary Roost Assessment

- 2.6 A field survey was undertaken on the 14th May 2020.
- 2.7 An assessment of the onsite building was undertaken in accordance with the latest published best practice guidance (Collins, 2016).
- 2.8 The building was externally and internally inspected for bats and their signs with the aid of high-powered lamps and close-focussing binoculars.
- 2.9 The suitability of the building to accommodate bats was assessed, along with a systematic search for signs of bats (e.g. droppings, moth wings, scratch marks, staining, etc.) or actual bats that were present. Particular attention was paid to the roof areas, with searches for any crevices or gaps in walls, gaps between beams and joists, droppings stuck to the walls, floors or other surfaces, or feeding remains below beams, in addition to a number of other factors and signs indicative of a bat roost.
- 2.10 In addition, the building was classified according to its suitability for bats, based on the presence of features within the structure and / or landscape (see Table 2).

¹ <http://magic.defra.gov.uk/MagicMap.aspx>

² Zol definition – ‘the areas/resources that may be affected by the biophysical changes caused by activities associated with a project’ (CIEEM, 2016).

Table 2 – Summary of guidelines for assessing the potential suitability of proposed development sites for bats (from Collins 2016).

Suitability	Description of building, tree, or structure	Number of activity survey visits required ³
Negligible	Negligible habitat features on site likely to be used by roosting bats.	None
Low	A structure or tree with one or more potential roost sites that could be used by individual bats opportunistically. However, potential roost sites not suitable for larger numbers or regular use (i.e. maternity or hibernation).	One
Moderate	A structure or tree with one or more potential roost sites that could be used by bats, but unlikely to support a roost of high conservation status.	Two
High	A structure or tree with one or more potential roost sites obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time.	Three
Confirmed roost	Evidence of bats or use by bats found.	Minimum of two – to characterise the roost

Field Survey - Bat activity surveys (dusk emergence)

- 2.11 Two bat activity surveys (dusk emergence survey) were undertaken on the onsite building.
- 2.12 The dusk emergence surveys commenced approximately 15 minutes before the time of local sunset (source www.sunrisesunsetmap.com) and continued for approximately 1.5 hours after sunset.
- 2.13 Surveyors were equipped with broadband bat detectors (Elekon BatScanner Stereo). Elekon Batloggers was also deployed to record bat activity across the site.
- 2.14 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

- 2.15 The preliminary roost assessment was undertaken by Alex Wilson and the bat activity surveys were led by Julie Player and assisted by Emma Douglas, Jenny O'Neil, Stephen Shutt, Marie Pugh and Jody Webb. See Table 3 for further information.

³ To provide confidence that bats are absent from the structure

Table 3 – Surveyor information.

Surveyor	Licences	Ecological experience
Alex Wilson Ph.D., B.Sc. (Hons) MCIEEM Principal Ecologist	Bat Dormouse Barn owl	Holds a Ph.D (Visual constraints in bird behaviour). Experienced in undertaking ornithological surveys, and bat surveys. Is a licensed bat and dormouse ecologist in England and Wales. Supervisor and advisor to undergraduate and postgraduate ecological research projects.
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 Jenny O'Neil Jody Webb Marie Pugh Stephen Shutt*	-	competent and confident field surveyors. Assistants backed up by experienced and licenced (asterisked) surveyors and/or recording detectors where possible.

Limitations and assumptions

- 2.16 The loft areas (i.e. space above the offices) were not accessible during the PRA with no safe access to these areas.
- 2.17 The eastern gable end was not fully visible during the bat activity surveys due to the dense vegetation located immediately adjacent to the building and the steep bank down to the brook.
- 2.18 Visibility of the southern aspect of the building was difficult due to the large amounts of trees and foliage in front of it.
- 2.19 During the first bat activity survey in May 2020 the surveyor observing the southern aspect of the building had to complete the survey from within the car due to anti-social behaviour within the car park, for their safety.
- 2.20 A static detector was due to be installed during the survey period, however, due to Covid-19 restrictions and difficulties gaining access during this time, this was not possible.
- 2.21 No other 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 in relation to bats was made.

3 RESULTS

Desk study

Designated sites (statutory)

- 3.1 There were no international statutory designations within 5km of the site and two national statutory designations within 2km (see Table 4). The closest statutory designated site was Cwm Glo a Glyndyrys SSSI and is located approximately 980m south west from the site.
- 3.2 There are no protected areas (SSSIs or SACs) designated for their bat populations within 10km of the site.

Designated sites (non-statutory)

- 3.3 There were two non-statutory designations within 1km of the site (see Table 4). The closest non-statutory designated site is Taf Fawr and located approximately 330m west from the site.

Table 4 – Summary of designated sites in range of the site.

Site name	Designation	Description / key reason for designation	Distance & direction
Taf Fawr	SINC	Section of major river tributary of the Afon Taf. The river extends into Brecon Beacons National Park to the north. Includes adjacent woodlands, which are relatively undisturbed in the upper reaches and more urban in character further downstream. The upper reaches in particular are of high ecological value, comprising limestone gorge woodland with a rich ground flora. Numerous rare plant species occur here. Further south the riverside woodland is more acid in character, but nevertheless supports a relatively diverse ground. The site also includes some adjacent areas of species-rich calcareous, neutral and acid grasslands. The calcareous grasslands in particular support numerous species which are scarce in the County Borough. Otter ranges along the Afon Taf Fechan, which also supports a range of native fish species including salmon.	330m W
Cyfarthfa Park	SINC	Part of an area of mainly ornamental parkland within Merthyr Tydfil. The SINC includes semi-natural woodland and several enclosures of neutral grassland in the eastern half of the park. Also includes small areas of plantation woodland and scrub and several woodland ponds.	900m NW
Cwm Glo a Glyndyrys	SSSI	Cwm Glo a Glyndyrys is of special interest for its extensive areas of marshy grassland, species-rich neutral grassland and acid grassland, and for the association of these habitats with others including woodland and heath. It is also of special interest for its outstandingly diverse assemblage of grassland fungi, including 32 species of waxcap <i>Hygrocybe</i> spp, making it one of the best sites in Britain.	980m SW

Cwm Taf Fechan Woodlands	SSSI	Where the partially wooded valley of the Taf Fechan crosses the north crop Carboniferous Limestone. Mixed deciduous woodlands cover steep slopes and spoil from quarries with one of the few Glamorgan stations for <i>Gymnocarpium robertianum</i> . There are interesting plant communities in flushes around tufa springs and luxuriant growths of bryophytes in the splash zone of the river.	1.6km NW
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Protected species

3.4 Table 5 summarises the priority and protected species records found within the local area within the last 10 years.

Table 5 – Bat and roof-nesting bird species records found in the vicinity of the site within the last 10 years.

Protected & priority		# of records (# species)			Further information
Groups	Species	Onsite	<500m	>500m	
Bats	Common pipistrelle	-	6	25	Closest roost and record – 117m NE
	Soprano pipistrelle	-	6	15	Closest record – Bat activity 57m NW Closest roost – 350m SE
	Unidentified pipistrelle	-	4	15	Closest record – Bat activity 117m NE Closest roost – 252m NE
	Brown long-eared bat	-	2	3	Closest roost and record – 117m NE
	Long-eared species	-	1	-	Closest record and roost – 252m SE
	Noctule	-	2	-	Closest record – 117m NE
	Natterer's bat	-	-	4	Closest record – Bat activity 1.5km NW
	Serotine	-	-	1	Closest record – 1.4km N
	Lesser horseshoe bat	-	1	1	Closest record and roost – 117m NE
	Daubenton's bat	-	-	6	Closest record – Bat activity 1.3km NW Closest roost – 1.5km NW
	Unidentified <i>Myotis</i>	-	-	5	Closest record and roost – 1.5km NW
	Unidentified bat	-	3	17	Closest record and roost – 215m W
Birds (Schedule 1)	Peregrine	-	- (-)	1 (1)	Schedule 1 species: Peregrine recorded 510m from the site
Birds (non-Schedule 1)	Please see further information	-	6 (4)	2 (2)	Species recorded include, blue tit, herring gull, lesser black backed gull, swallow, swift and house sparrow

Field survey

3.5 Prevailing weather conditions during the preliminary roost assessment are summarised within Table 6.

Table 6 – Summary of weather conditions during the PRA.

Date	Type	Conditions				Personnel * = licence holder
		Temp [°C]	Cloud cover [Oktas]	Wind speed [Beaufort]	Rain	
14/05/2020	Preliminary Roost Assessment	12	1	1	Nil	Alex Wilson

3.6 A description of the building inspected during the PRA can be seen in Table 7.

Table 7 – Onsite building information.

Building Reference	Description	Development plans
Old Drill Hall	A large structure with the interior being open towards the central and western areas (used as a car mechanic garage), with workshops and office space to the east. Areas of fire damage were noted within an old kitchen area. A small store basement is present at the south-eastern corner of the site, with this being below the ground-floor within the structure, but above ground level of the exterior (a disused bridge joins this space to the offsite car park). The building is constructed of a mixture of brick, concrete and breeze blocks, areas of which have been rendered, and a pitched, slate roof with metal vents at the ridge. The roof has decorative wooden beams and is sarked in the interior. There are open windows located on western and southern aspects of the building. Areas of the southern and eastern aspect of the building were covered in dense ivy and partially hidden by woodland/scrub habitat. There are several streetlights located along roads nearby and within the car parks to the south that are likely to produce some light spill onto the building.	Re-development into commercial units
Open-sided store	Found to the west of the main building. This is a dilapidated open sided (open on tow sides) structure with severe water ingress. This is approximately 1.8m height. The masonry wall is damaged with large cracks present (rear or western wall).	Demolition

3.7 The results of the PRA can be seen in Table 8.

Table 8 – PRA results.

Building reference	Use by bats	Use by birds	Bat signs and internal and external Potential Roost Features (PRFs) & access points
Old Drill Hall	Y	N	A single dropping indicative of a brown long-eared bat was recorded within a workshop inside the building. This appeared to be not recently produced with no other accumulations or feeding signs within the area around it (or noted elsewhere). There was no evidence of nesting birds within the building at the time of the PRA survey. The open windows located on the southern and western aspects of the building allow easy access into the building for bats (crevice dwelling and free hanging species such as horseshoe and long-eared bats) and birds. Slipped and broken tiles were visible on the northern aspect of the roof which would be suitable access features for roosting crevice-dwelling bats. Dense ivy on the building is suitable to support nesting birds and roosting bats, it may also be hiding additional suitable bat access/roosting features. The habitat immediately east, south and west of the site (river corridor, woodland, and dense habitat) is optimal to support commuting and foraging bats. Due to the large number of suitable bat access features into the structure it is highly likely that bats are roosting within it. Due to the buildings construction and location to optimal habitat it is suitable to support bats during both summer and winter through hibernation.
Open sided store	N	N	Whilst being open access, this structure is very wet with no suitable crevices for roosting. It had no signs of use by nesting birds, and no signs of bat use were found.

Links to surrounding habitat

- 3.8 Woodland and river corridor habitat is located immediately south, south east and south west of the site which is connected to the Taf Fawr located west. There are also tree lined streets located to the north and a woodland block located 200m south west of the site. All of the connected habitats are suitable to support foraging, commuting and roosting bats.
- 3.9 The watercourse is wooded which offers dark linkages within a relatively bright area of the town, and allows potential use by more light intolerant species.

Bat activity surveys (dusk emergence)

Timing and conditions

- 3.10 The survey timings and weather conditions during the activity surveys can be seen in Table 9.

Table 9 – Summary of survey timing and conditions during activity surveys.

Date	Type	Survey Timing			Conditions			
		Start	End	Sunset	Temp [°C]	Cloud Cover [Oktas]	Wind Speed [Beaufort]	Rain
28/05/2020	Dusk emergence	21:04	22:49	21:19	<i>Start: 18 End: 15</i>	<i>Start: 0 End: 1</i>	<i>Start: 1 End: 2</i>	Nil
17/07/2020	Dusk Emergence	21:08	22:53	21:23	<i>Start: 16 End: 14</i>	<i>Start: 7 End: 8</i>	<i>Start: 1 End: 2</i>	Nil

3.11 The results of the bat activity surveys (dusk emergence) are summarised in Table 10.

Table 10 – 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 28/05/2020	- First bat heard at 21.29 (SS+10) soprano pipistrelle bat seen but not heard. - One common pipistrelle emerged from western gable end of the structure at 21.45 (SS+26).	- Bat activity along the north-eastern section of the site was rather quiet. Large amounts of light spill noted from the streetlight on Pontmorlais Road to the north of the site. - Bats were recorded commuting over the building (south-east to north-west) and foraging and commuting along the western and southern boundary of the site over woodland and river corridor habitat. - Species recorded during the survey were common and soprano pipistrelle and noctule bats.
Dusk emergence 17/07/2020	- First bat heard at 21.32 (SS+9) soprano pipistrelle commuting over the building in a north to south direction towards the brook. - One common pipistrelle emerged from the western gable end of the building at 21:39 (SS+16). - Two common pipistrelle bats emerged from the broken window on the western gable end of the building at 21:44 (SS+21) - One common pipistrelle bat emerged from the broken window on the western gable end of the building at 21:50 (SS+27) - One common pipistrelle emerged from and re-entered the western gable end of the building at 21.52 (SS+29) - One common pipistrelle emerged from the barge board on the western gable end of the building at 21.58 (SS+35) - One common pipistrelle emerged from the window on the western	- There was more bat activity along the northern boundary of the site than in the first survey. - Bats were recorded commuting over the building (south to north direction) to the trees located on the western boundary of the site. Bats were also recorded commuting and foraging regularly throughout the survey along the brook and woodland to the east of the site. - Species recorded during the survey include brown long-eared, common pipistrelle and soprano pipistrelle bats.

	aspect of the building at 22.13 (SS+50) One brown long-eared bat was recorded commuting in a south to north direction towards heading towards the building	
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3.12 Bat flight lines in and around the site can be seen in Appendix I.

3.13 Bat roosts were identified during the activity surveys and are summarised in Table 11.

Table 11 - Details of bat roosts identified

Date	Species (number)	Roost type (number)	Roost location	Access points	Dimensions or description
14/05/2020	Brown Long-Eared	Individual day roost	Unknown – single dropping found in workshop on table	Unknown	Unknown
17/07/2020	Common Pipistrelle	Day roost for a small number of bats	Location unknown	Open window and barge board	Unknown
17/07/2020	Brown Long-Eared	Individual night roost	Unknown appears to be re-entering the southern aspect of the building	Unknown	Unknown

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).

Designated sites

- 4.2 There were both statutory and non-statutory designated sites identified within the vicinity of the site (see Table 4). The closest statutory site was Cwm Glo A Glyndyrys SSSI located 980m south west from the site and the closest non-statutory site was Taf Fawr SINC located 330m west from the site.
- 4.3 There are no protected areas (SSSIs or SACs) designated for their bat populations within 10km of the site.
- 4.4 The brook located immediately south of the site flows into the Taf Fawr. Although the brook is culverted, otters may occasionally venture along the brook south of the site and commute towards the Taf Fawr where they are known to be present and one of the features in which the Taf Fawr is designated for. Without appropriate mitigation the works may impact otter due to the close proximity of the works and the building to the brook, south of the site and may in turn impact otters getting to the Taf Fawr.
- 4.5 Given the scale of the proposed development, and the lack of likely impacts beyond the site boundary, Cwm Glo A Glyndyrys SSSI is sufficiently well separated so that no impacts on its designated features are anticipated as a result of the works.
- 4.6 Based on the results of the PRA, an assessment of the potential suitability of the onsite building for bats and nesting birds could be made (see Table 12).

Table 12 – Onsite building suitability for bats and nesting birds.

Building / tree reference	Suitability / confirmed use	
	Bats	Nesting birds
Old Drill Hall	Crevice dwelling bats – confirmed use (common pipistrelle) with suitability for bats within wall tops, within roof structure and other crevices. Void dwelling bats – confirmed use as a night roost for individual brown long-eared bats. Freely accessible structure suitable to support void dwelling species. Horseshoe species – suitable access available for these species. There is suitability for maternity use for void and crevice dwelling species, though with the use of the structure as a car repair garage, it is less likely that there would be larger numbers of horseshoe bats using the structure.	There is suitability for nesting birds to use the structure to nest within, within the ivy and scrub immediately surrounding the building, and on the exterior walls, as well as those more tolerant to disturbance within the structure. There was no evidence of barn owl use.

Building / tree reference	Suitability / confirmed use	
	Bats	Nesting birds
	There is suitability for hibernation within crevices and wall tops for void and crevice dwelling species.	
Open sided store	Negligible suitability for use by any species of bats, though than opportunistically to shelter from inclement weather (though the open nature would mean they would still be exposed to this).	Unsuitable for use given low height and lack of features to support nests away from predation or sufficient shelter.

- 4.7 The local records search returned a number of records for bat species in the vicinity of the site (see Table 5) species recorded were predominately common, soprano and unidentified pipistrelle species. Other species recorded include noctule, brown long-eared bat, long-eared species, Natterer's bat, serotine, lesser horseshoe bat and Daubenton's bat.
- 4.8 The site is connected to a known roost for lesser horseshoe, brown long-eared and common pipistrelle bats located within the Former Merthyr Tydfil YMCA, species roosting within the YMCA include brown long-eared, lesser horseshoe and pipistrelle bats. In order to gain access to the Old Drill Hall, the bats in the YMCA would be need to fly south to the woodland/treeline located adjacent to the brook and west 117m before reaching the building. It would not be implausible for this to occur, as the river corridor is dark and provides optimal commuting and foraging habitat, though they would need to cross the illuminated road. During the surveys carried out at the YMCA building, the lesser horseshoe bat activity was to the northern side, with no passes for this species to the south.
- 4.9 The building is suitable to support crevice-dwelling, void-dwelling and horseshoe bat species with access possible through the open windows and gaps within bargeboards, vents and roof slates. The structure is less likely to support larger colonies of void-dwelling or horseshoes given the surrounding environment and lack of large areas of dark foraging habitat and a lack of any signs of use by a larger roost for these species. The structure is however able to support maternity colonies of crevice dwelling bats such as pipistrelles within roof crevices and walltops.
- 4.10 The building is less likely to be used for day roosting or hibernating horseshoe bats given the open-air flow within the accessible areas, and high levels of disturbance.
- 4.11 The structure is suitable to support night roosting horseshoes and long-eared bats with the structure able to provide shelter at night without the disturbance of the garage being in use.
- 4.12 Whilst no signs of horseshoe use were found, it is possible that further bat signs were present on top of the offices. To reiterate, no accumulations or scattered droppings characteristic of horseshoe species were found elsewhere (and similarly only one long-eared dropping) as would be expected for these species, indicating

that it is not likely that larger numbers of these species use the site (or at all in the case of horseshoes).

- 4.13 Bat roosts for brown long-eared (individual night roost) and common pipistrelle (day roost, small numbers) were confirmed within the onsite building during the bat surveys. One common pipistrelle bat was recoded emerging from under the barge board on the western aspect, the remaining six were recorded emerging from the broken window on the gable end of the western aspect of the building. A single dropping indicative of a brown long-eared bat species was found in the workshop during the PRA and a brown long-eared bat appeared to be flying towards the southern (to the eastern end) aspect of the building over the brook. The exact roosting location for this bat was not clear due to the foliage present on the southern side of the building.
- 4.14 Streetlights located to the north of the site and within the carpark located across the brook, south of the site did produce some light spill onto the brook and the building. The light radiance levels on the site are high (see Figure 3), and whilst it is unlikely that the redevelopment of the building will increase light pollution significantly, the loss of any shading vegetation and any new windows affording light spill onto the brook and brook corridor may impact at a local level. This may cause habitat fragmentation should there not be a sufficient dark corridor along the southern aspect.
- 4.15 In the absence of mitigation, there will be a negative impact on bat species as a result of the proposed development of the site.

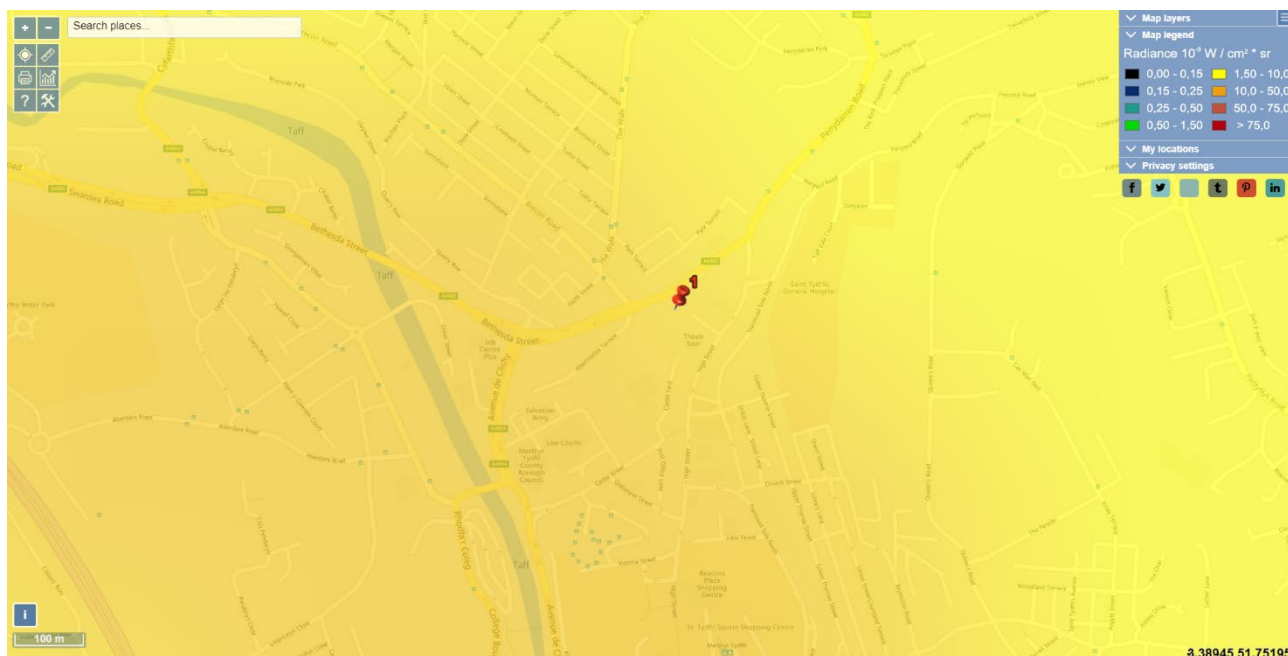


Figure 3 - Radiance levels at the site (red pin) are currently $22.52 \times 10^{-9} \text{ W cm}^{-2} \times \text{sr}$. www.lightpollutionmap.com VIIRS data 2020.

- 4.16 An assessment was made of the value of all bat roosts identified onsite (plus the value of the site for commuting and foraging) using the framework suggested by Wray et al (2010) – see Table 13.

Table 13 – Value of the site for bats (from Wray et al 2010)

Site location	Wales					
Type & complexity of linear features	Walls, gappy or flailed hedgerows, isolated well-grown hedgerows, and moderate field sizes					
Foraging habitat characteristics	Suburban areas / intensive arable land					
Species on site	Roost type	# of bats	Roosts/potential roosts nearby	Geographic frame of reference [score]		
				Roost	Communting	Foraging
Brown long-eared	Individual bats	Individual	Moderate/unknown	County	Local [17]	Local [16]
Common pipistrelle	Small numbers of non-breeding bats	Small	Moderate/unknown	Local	Local [19]	Local [18]

Nesting birds

- 4.17 The onsite building and adjacent trees had suitability for nesting birds.
- 4.18 There were many access features into the building suitable to allow nesting birds access (e.g. broken windows and doors), though no evidence of use was noted during any of the surveys. Dense vegetation growing up the building and adjacent to the building (woodland and scrub) is also suitable to support nesting birds.
- 4.19 No use by barn owl or other Schedule 1 bird species was noted.
- 4.20 In the absence of mitigation, there may be a negative impact on bird species as a result of the proposed development of the site, with this in respect of removal of ivy and scrub adjacent to the building.

European Otter

- 4.21 The brook located immediately south of the site may be used by otter from time to time, though it being heavily culverted to the north (upstream) means that use by otter is likely to be infrequent, with animals using the Taf as a main route through the area.
- 4.22 The steep banks of the brook are not particularly amenable to resting points, though some flatter areas are likely to be present along the stretch between the site and the Taf.
- 4.23 The brook will be retained, however impacts on the brook's health through pollution (dust, chemical, fuels, materials) and through light spill, will negatively impact upon aquatic life, including otter.
- 4.24 In the absence of mitigation, there may be a negative impact on otter as a result of the proposed development of the site.

5 CONCLUSIONS AND RECOMMENDATIONS

- 5.1 Wildwood Ecology was commissioned by Murphy Corke Developments Ltd (the client) to undertake an Ecological Impact Assessment for bats at The Drill Hall, Merthyr Tydfil.
- 5.2 The site is the subject of a planning application for the redevelopment of building into commercial units at the site.

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

- 5.3 Bat roosts for individual brown long-eared bats (night roost) and a small number (x7) of common pipistrelle bats (day roost) were confirmed within the onsite building.
- 5.4 In the absence of mitigation, there will 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) for all species of bats roosting onsite will be obtained in order for the works to the building to be legally undertaken. The EPSL will require a detailed mitigation and compensation strategy to be devised in the form of a method statement. This will aim to ensure that the maintenance of the roosts and local bat populations are maintained at a favourable conservation status.
- 5.6 Monitoring will be required of the compensation features, with surveys carried out in line with the licence conditions, likely to be a survey in Years 1 and 3 post works.
- 5.7 The method statement will include mitigation recommendations as follows:
- A tool-box talk to be provided to contractors on site by a bat licenced ecologist prior to commencement of the works.
 - Soft strip of the roof, bat access features and potential roost features (works to be undertaken using hand tools only) under the supervision of a bat licensed ecologist.
 - An interim bat box (Greenwood's Ecohabitats double crevice box) to be installed on the structure (southern elevation, eaves height) prior to the commencement of any works. This will be retained post works.
 - Retention of bat access onto wall tops through gaps at the soffits/bargeboards onto the wall top every 5m.
 - Use of only bitumen felt Type 1F (BS747) or timber sarking is permitted within bat roosts.
 - The roof to be slated to retain similar thermal qualities.
 - To compensate for the loss of the brown long-eared bat night roost, provision of access to a roof void, with this void having with wooden Kent style bat boxes x 2 within it and no internal (human) access). If this is not possible, an exterior structure (stone/block structure with slated roof) to accommodate this species is recommended to be constructed.

- The access to the brown long-eared feature will be via a letter-box entry (either into the roof void area or within the new structure) measuring 300mm x 200mm. This will provide access to lesser horseshoes also, as a precaution to compensate for this species. The access will be sited towards the western end of the site into vegetation, which will provide cover for the bats to use.
- 5.8 The method statement will also detail the appropriate timing for works to the buildings. This will be outside of the most vulnerable time periods for bats (hibernation season) meaning works may be carried out between March and November.
- 5.9 Breathable membranes will not be used as they are detrimental to the welfare of bats and when used in bat roosts are known to lose their functionality over time.
- 5.10 In order to prevent an impact on local bat populations, foraging and commuting routes along the brook to the south and woodland habitat located immediately east and west of the site must remain un-fragmented. Fragmentation can occur by physical removal of the woodland habitat, but also by artificial light spilling onto them.
- 5.11 A lighting plan will be required prior to NRW licence determination. This will illustrate that all bat features, the brook and vegetation are unlit. The lighting professional will need to adhere to the ILP/BCT 2018 guidance on bat friendly lighting.
- 5.12 All UK bats are nocturnal species and light averse (horseshoe bats particularly so). Artificial lighting of foraging and commuting routes is known to act as a barrier to bats and fragment otherwise suitable habitats, causing a negative impact on their local populations.
- 5.13 If any major tree works (e.g., felling, removal of major limbs, crown lifting) are planned then these trees must be subject to a preliminary ground level roost assessment to identify any potential roost features (PRFs). Any PRFs identified will require further investigation – a PRF inspection survey (involving tree climbing/endoscopy) prior to works.

Nesting Birds

- 5.14 If habitats suitable for nesting birds are to be removed (e.g in the building/ivy cover/scrub and trees around the boundary of the site), then any works will take place outside of the bird nesting season. In the event that clearance work has to be undertaken during the nesting season (generally from 1st March until 31st August, although birds are known to nest outside of these dates in suitable conditions), a breeding bird survey will be required and must be carried out by a suitably qualified person. Any active nests identified should be protected until the young have fledged. Where a Schedule 1 species (as defined in the Wildlife and Countryside Act - <http://www.jncc.gov.uk/page-3614> is involved, compensation for impacts, e.g., loss of nesting sites, should be devised and implemented.
- 5.15 Compensation features (for the loss of opportunity) will be installed on the structure. Given the location, we recommend that the bird boxes installed are on

the southern elevation at ground floor height, with boxes to accommodate blue tit and dipper (x2). Whilst these boxes are species specific, they may be used by multiple species. Two further boxes are to be installed at eaves height on the southern elevation for swift.

European Otter

- 5.16 No further otter surveys are required; however, mitigation is required to ensure that they are not impacted as part of the proposed development.
- 5.17 Pollution control measures will be required to prevent impacts upon otter habitat immediately south of the site that leads into the Taf Fawr SINC. The aim of this will be to prevent any pollution entering the brook (including materials, fuel, litter, chemicals, dust). As such, there will be no fuelling of machinery within proximity to the watercourse. During operation, a barrier to prevent vehicle oil/fuel will be required to be in place and maintained to prevent operational phase aquatic impacts.
- 5.18 Should there be any excavations or trenching unable to be covered over at night, these will include a means of escape for trapped animals i.e., plank set at 30°.
- 5.19 The lighting plan will be of benefit to otter also (5.10).
- 5.20 All chemicals, fuel, and materials to be stored safely in locked units away from animal access.

Biodiversity enhancement

- 5.21 Local Authorities have a duty to seek to maintain and enhance biodiversity in the exercise of their functions.
- 5.22 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.
- 5.23 Additional bat and bird boxes may be possible to achieve on this site to benefit additional species, however alternative enhancements would be of benefit to invertebrates such as creation of green walls, rain gardens and new native species trees (e.g., rowan, bird cherry) to provide additional resources for wildlife.
- 5.24 Ensuring there are continued green (and dark) corridors along the brook with additional and where appropriate, infill (native species) tree planting.
- 5.25 A brook clean-up would enhance the site and local area also.

Overall conclusion

- 5.26 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 no long-term impacts upon the key protected species present 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 January 2022. 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 ADDENDUM

- 6.1 It was raised by the client that works had commenced prior to receiving the report (Rev A), and so it is not possible for the NRW EPS licence to be applied for as the roosts (common pipistrelle, brown long-eared) are lost due to reroofing and works.
- 6.2 The roofing works mean that inclusion of accessible roof void space will not be possible, due to the use of non-woven breathable membranes, which are unable to be used within a bat roost due to bats becoming entangled within the fibres, and the membrane degrading.



Figure 4 – northern elevation showing new roof covering (provided by client)



Figure 5 - southern elevation showing new roof covering (provided by client)

- 6.3 As such, the mitigation and compensation outlined in Appendix IV is no longer wholly appropriate. The mitigation and compensation within Appendix V is now recommended to ensure that there is provision for common pipistrelle and brown long-eared day roosting opportunities.
- 6.4 We recommend that these features are provided immediately to ensure that there is provision for bats as soon as practicably possible, with these to be completed before any further works are carried out.
- 6.5 The measures include 4 x double crevice bat boxes (Greenwood's Ecohabitats double crevice boxes) across the southern elevation of the building for use by crevice dwelling bats (i.e., pipistrelle and brown long-eared).
- 6.6 Timber cladding will also be provided on the western gable end with gaps created allowing access to crevice dwelling bats (i.e., pipistrelle and brown long-eared). The cladding will fall no less than 2m from the apex and extend across the entire width of that fall, with no less than 4 gaps, each measuring no less than 15mm.
- 6.7 The lighting plan will remain as per Figure 19 – no lighting above existing levels in these areas.
- 6.8 The hedge will be maintained by a cut by 30% in the first year (November time) post planting; and again in year 2. Subsequently the hedge will be allowed to grow and minor trims to promote bushy growth as and when required. All cuts to be carried out outside the nesting bird season. All hedge protection to be removed once established (by year 3). Any failures will be replanted as soon as possible (within the next appropriate planting season) like-for-like.
- 6.9 The LPA ecologist will require that a compliance check is carried out once the works are completed and monitoring of the bat features also in subsequent years (night-time survey/static bat survey). Liaison with LPA ecologist will be required to ascertain the frequency.

7 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.
- Institute for Environmental Assessment (1995). Guidelines for Baseline Ecological Assessment. E & FN Spon, Hong Kong.
- 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.
- Mitchell-Jones, A.J. (2004) Bat Mitigation Guidelines. Natural England, Peterborough.
- Rowse E.G., Lewanzik D., Stone E.L., Harris S., Jones G. (2016) Dark Matters: The Effects of Artificial Lighting on Bats. In: Voigt C., Kingston T. (eds) Bats in the Anthropocene: Conservation of Bats in a Changing World. Springer, Cham.
- 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: SURVEY IMAGES



Figure 6 - Southern aspect of the building



Figure 7 - Brook immediately south of the old drill hall building



Figure 8 - Dense ivy growing on the building



Figure 9 – Northern aspect of the building (arrow showing slipped slates)



Figure 10 - North western aspect of the building



Figure 11 - Western gable end of the building (arrows show locations that bats emerged from)



Figure 12 - Inside workshop showing wooden beam roof structure



Figure 13 - Inside workshop



Figure 14 - Bat dropping located on a table in the workshop



Figure 15 - View of basement store access

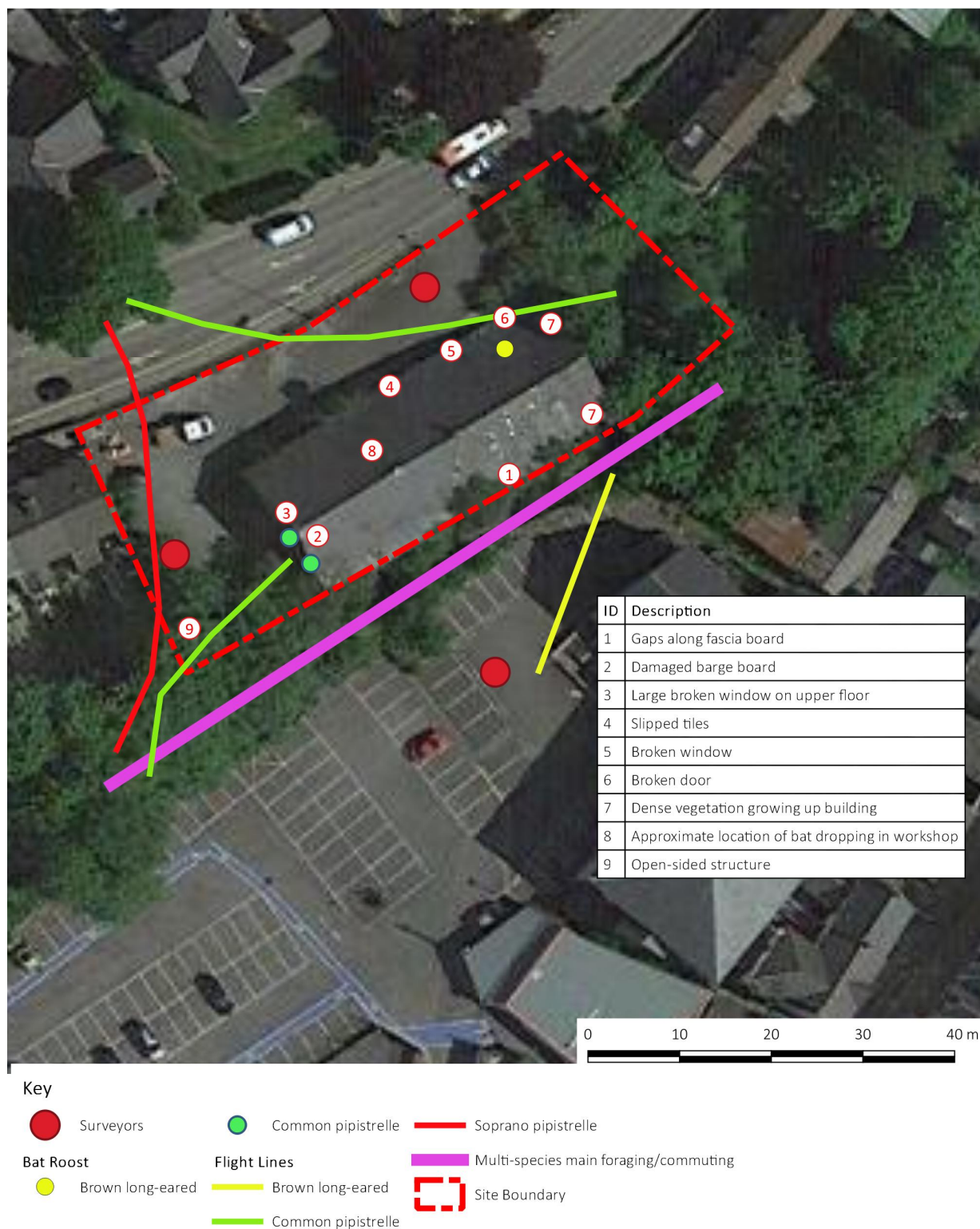


Figure 16 – Upper floor office room (window to southern elevation)



Figure 17 – Eastern aspect of the structure with young sycamore present

APPENDIX II: PRELIMINARY ROOST ASSESSMENT AND BAT ACTIVITY SURVEY PLAN



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Figure 18 – Preliminary roost assessment and bat activity survey plan

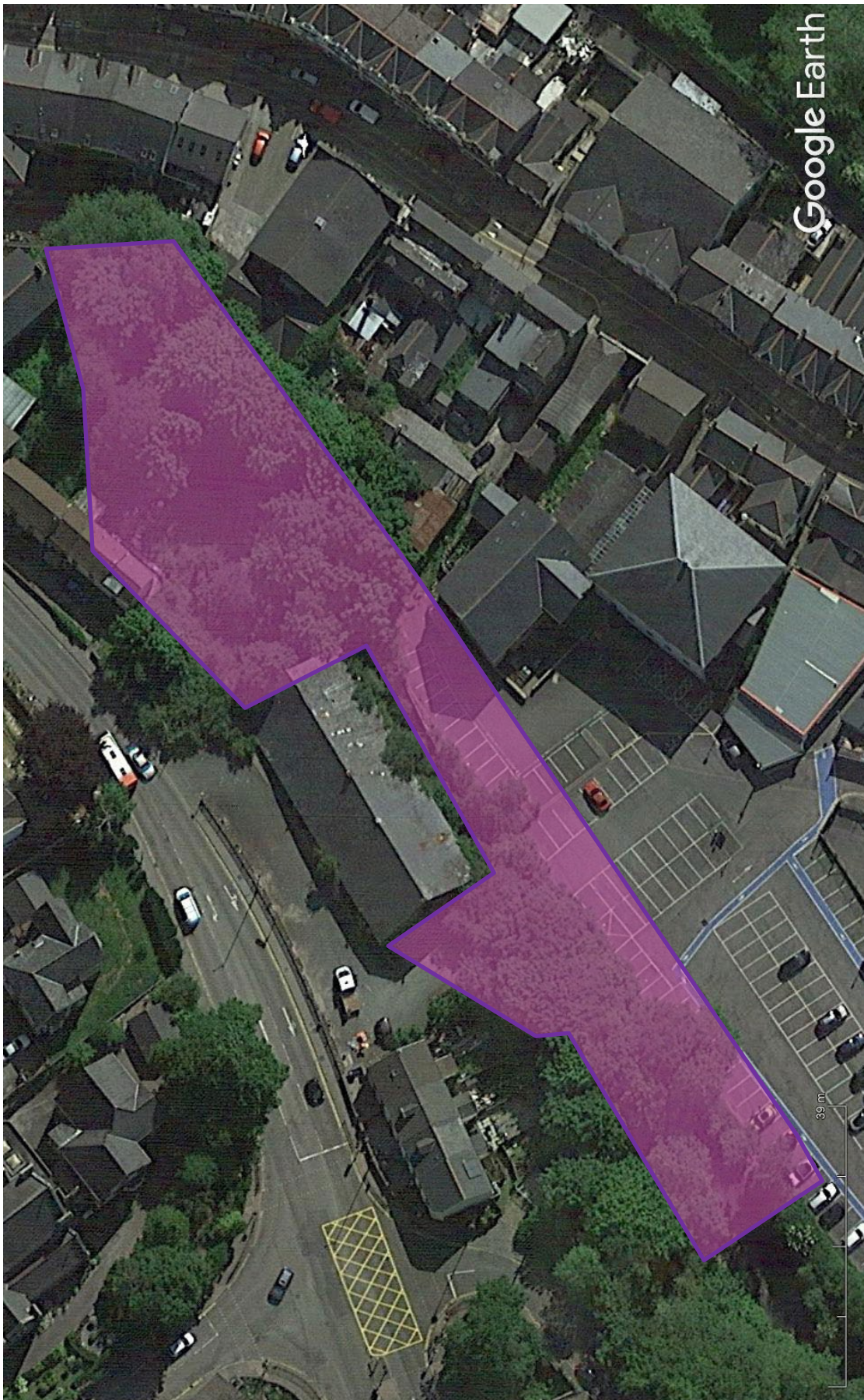
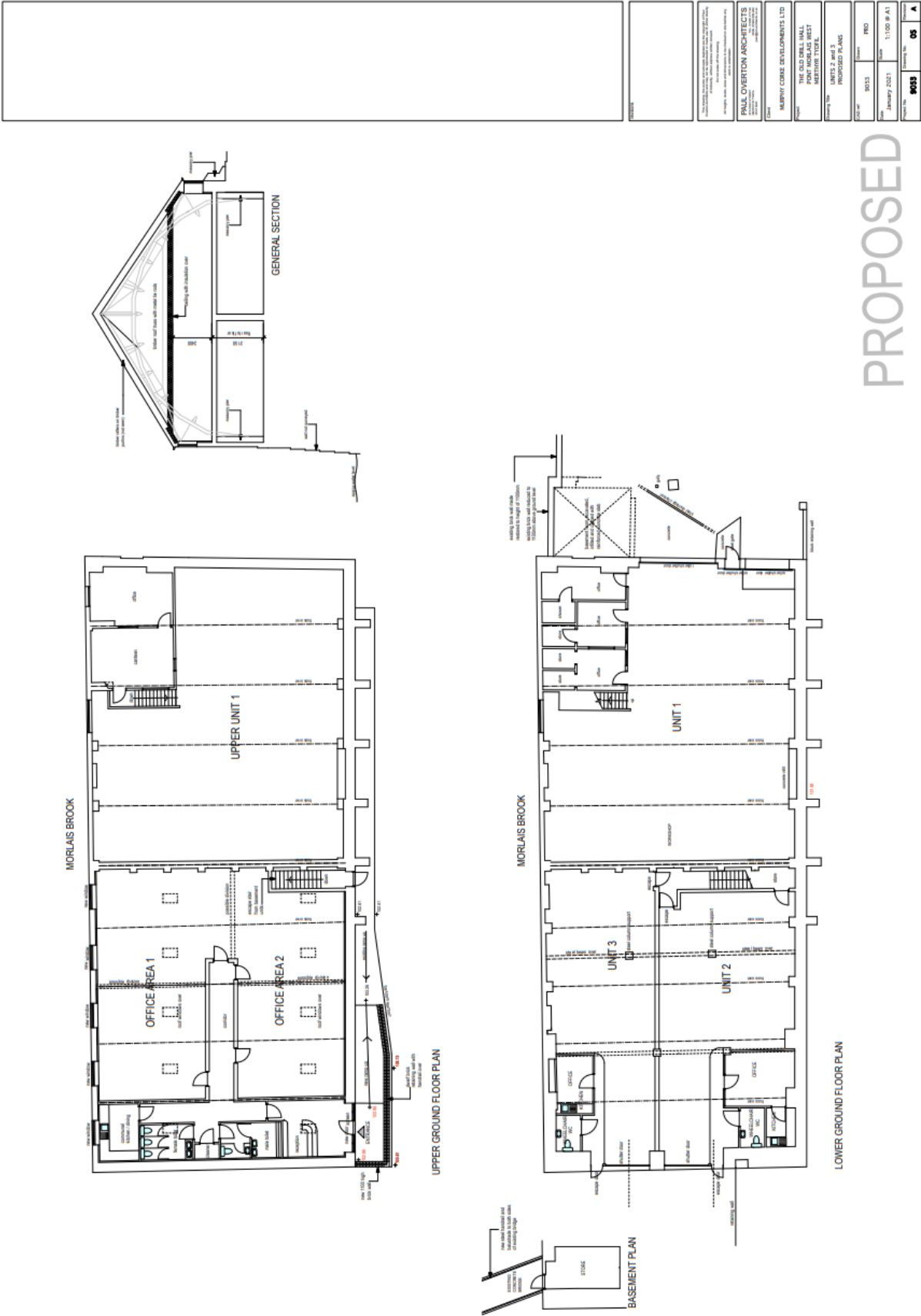
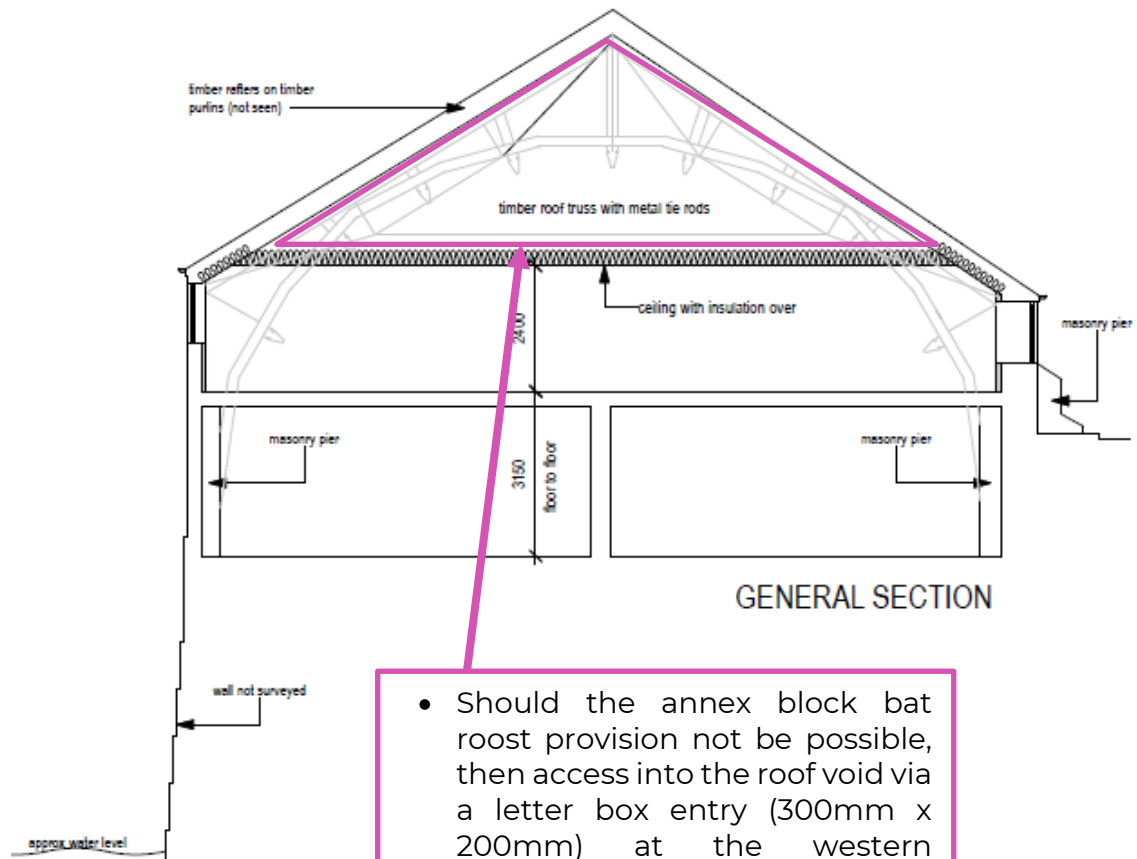


Figure 19 - Area to be retained as dark (no additional lighting)

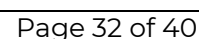
APPENDIX III: PROPOSED DEVELOPMENT

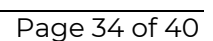


- New planting of native species hedge species (to be maintained as a double row (5 plants per m, offset by 25cm) hedge with cuts to 2m height).
 - Species to be blackthorn, hazel, guelder rose, rowan, hawthorn.
-
- Construction of a block/brick stand-alone structure to compensate for the loss of roost space for brown long-eared, and as a precaution for lesser horseshoe.
 - To be slated with a pent roof.
 - Letter box entry 300mm x 200mm on western aspect (red shape).
 - Two Kent boxes to be installed in the interior (yellow shapes).
 - Single storey structure.
 - Either lined in bitumen felt or open slated interior.
-
- Gaps in bargeboard/soffit to allow bat access onto wall-top every 5m around the perimeter of the walls
 - Only Type 1F used to line the roof, or timber sarking.
-
- Greenwood's Ecohabitats double crevice bat box



- Should the annex block bat roost provision not be possible, then access into the roof void via a letter box entry (300mm x 200mm) at the western elevation will be created.
- The roof will be lined only in bitumen felt (Type 1F BS747) only.
- There will be no human access into the roof void for storage with any hatches locked with a notice provided that the roof void is considered a bat roost.
- Two Kent bat boxes to be installed (wired onto elevated timber trusses to preserve their





APPENDIX VI: SPECIES LIST

To be submitted to the appropriate Local Records Centre

Site Name: The Drill Hall, Merthyr Tydfil
Grid ref: SO 04942 06493

Provided by: Wildwood Ecology
Verified by: Julie Player

Common name	Scientific Name (if known)	Number	Comment	Survey Date
Brown Long-Eared Bat	<i>Plecotus auritus</i>	1	Roosting within the Old Drill Hall	17/07/2020
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	7	Roosting within the Old Drill Hall	28/05/2020 and 17/07/2020
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	3	Foraging and commuting	28/05/2020 and 17/07/2020
Noctule	<i>Nyctalus noctula</i>	1	Commuting	28/05/2020

APPENDIX VII: 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

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

Planning Policy Wales (2021) and Technical Advice Note 5 (2009)

Planning Policy Wales (Edition 11, February 2021) sets out the land use planning policies of the Welsh Government, integrating the Environment (Wales) Act (2016) requirements. The advice contained within Planning Policy Wales (PPW) is supplemented for some subjects by Technical Advice Notes (TANs).

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 2017 (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 2017 (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 2017 (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

Otter

The European Otter, *Lutra lutra* is a European Protected Species and therefore receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it an offence *inter alia* to:

- deliberately capture, injure or kill any wild otter;
- deliberately disturb wild otters;
- damage or destroy a breeding site or resting place of an otter.

In addition, the otter is 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:

- disturbs an otter while it is occupying a structure or place which it uses for shelter or protection; or

- obstructs access to such a place.

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