

A Preliminary Roost Assessment
on behalf of

Penydarren Boys and Girls Club
for
Bont Playing Field
Gellifaelog Old Road
Merthyr Tydfil
CF47 9HH



February 2023

Produced by: **Little Wing Ecology CYF** (A Not-for-profit Company Limited by Guarantee)
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Version: 01

Executive Summary

Summary	Little Wing Ecology (CYF) was commissioned to undertake a Preliminary Roost Assessment of a site known as, 'Bont Playing Field, Gellifaelog Old Road, Merthyr Tydfil CF47 9HH.' The survey was undertaken to inform the client of any constraints, and associated planning requirements with regards to protected species, and to inform a retrospective planning application. For the purposes of this report, this structure will be referred to as, 'The Site.'
Proposed Development	Retrospective planning permission is sought for six floodlights at Bont Playing Field.
About the Site	The Site occupies an amenity space of approximately 80m x 100m. Building A is a single storey, block-built, late-20th century detached structure. Roofing materials on Building A consists of concrete tiles with uPVC soffits/fascias and uPVC guttering. Building B is a block-built spectators stand with a sheet metal roof. The Site is situated off a main service road (Gellifaelog Old Road), ≈900m south of the A465 (Heads of the valleys road), within the eastern boundary of the settlement of Penydarren, 2km northeast of Merthyr Tydfil town centre. Habitats in the immediate vicinity of the structure is mixed, comprising other buildings, and made surfaces, such as roads and pavements. In addition, standard deciduous trees line the main service roads to the north, south and east. Artificial lighting is located adjacent to Building A (and adjacent properties) and impacts all elevations. A recycling centre located directly adjacent to the Site operates large security floodlights at night which directly impacts the Site.
Results	A Preliminary Roost Assessment (PRA) recorded a single feature of interest. A gap between the barge board and the wall plate which ran the length of the western elevation. This feature offers access to the interior roof space. No evidence of bat activity was recorded. While this feature is considered to offer a moderate risk for supporting a bat roost it is not directly impacted upon by the new floodlights. The new lighting directly impacts the eastern elevation. The floodlights, which are the focus of this development have restricted use. They are generally used 3 - 4 evenings a week between October – March (5pm - 8pm). Taking all of the evidence into account and considering the nature of the works, the feature identified at the western elevation of Building A will likely remain unaffected by the development. The floodlights are located at the east of Building A and there will be no direct light spill on this feature during the limited time the lights are in use (October – March). This feature would be most likely of interest to bats during the summer months (May-September). The Site is impacted on by adjacent artificial street lighting on Gellifaelog Old Road but more significantly by security floodings at the adjacent recycling centre (off-site). While the floodlights which are the focus of the development are restricted in use to the winter months, when bats are in the most part hibernating (October – March), the adjacent (off-site) security lights which directly impact the playing field are in use year-round. Taking the conclusions of this report into consideration, bat roosts are considered likely absent from the Site. Bat interest at Building A is considered to be of negligible conservation significance (Mitchell-Jones 2004) with breeding bats, not a concern. It is therefore considered that there are no specific restrictions or limitations apply.
Other Ecological Considerations	The run of scattered standard deciduous trees which line the main service roads to the north, south and east provide potential interest for roosting and foraging bats (in addition to nesting opportunities for many bird species). This treeline forms a significant linear feature in the landscape and provides connectivity north, south and east through the settlement of Merthyr Tydfil, and to the wider landscape. In addition, this provides connectivity to a significant woodland feature ≈350m south of the Site. Due to the quality of this adjacent habitat, it is considered that the proposed works would benefit from the inclusion of artificial roost boxes on the southern elevation of on-site trees.

Recommendations	<u>Recommendation 1 (Post Development Enhancements):</u> Bats: To encourage bat roosting activity and increase roosting opportunities locally - post-development, the inclusion of two F2 Schwegler Bat Boxes (or similar - table 5.1) on the southern or south-western elevation of mature trees within the southern boundary of the Football Club Grounds. These to be fitted at a height of >3m. The location to be identified under the direction of a suitably qualified ecologist. Birds: Enhancement for nesting birds on-site to be provided by the addition of fitting one B1 Schwegler Nest Box and one 2H Schwegler Robin Boxes (or similar - table 5.1) on the northern or north-eastern elevation of mature trees within the southern boundary of the Football Club Grounds. The location to be identified under the direction of a suitably qualified ecologist.
This Executive Summary is intended to provide an overview of the assessment of the site based on information received by Little Wing Ecology (CYF) at the time of production. This Executive Summary should be read in conjunction with the full report.	

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SECTION ONE: INTRODUCTION

1.1 Background

- 1.1.1 Little Wing Ecology (CYF) was commissioned to undertake a Preliminary Roost Assessment of a site known as, 'Bont Playing Field, Gellifaelog Old Road, Merthyr Tydfil CF47 9HH.' The survey was undertaken to inform the client of any constraints, and associated planning requirements with regards to protected species, and to inform a retrospective planning application. For the purposes of this report, this structure will be referred to as, 'The Site.'
- 1.1.2 This report contains the results from an examination of the the interior and exterior of the two structures and its associated grounds. Following this examination, an assessment of the likely impact that the proposed works will have on bat interest at the site was carried out. This report has been prepared with recommendations such as additional survey work and enhancement features, to improve opportunities for local species post-development.
- 1.1.3 Building A is positioned at grid reference SO 06092 07616 (Figure 1).

1.2 Proposed Works

- 1.2.1 Retrospective planning permission is sought for six floodlights at Bont Playing Field (Figure 2 & Figure 3).

1.3 Site Description

- 1.3.1 The Site occupies an amenity space of approximately 80m x 100m. Building A is a single storey, block-built, late-20th century detached structure. Roofing materials on Building A consists of concrete tiles with uPVC soffits/fascias and uPVC guttering. Building B is a block-built spectators stand with a sheet metal roof.
- 1.3.2 The Site is situated off a main service road (Gellifaelog Old Road), ≈900m south of the A465 (Heads of the valleys road), within the eastern boundary of the settlement of Penydarren, 2km northeast of Merthyr Tydfil town centre.
- 1.3.3 Habitats in the immediate vicinity of the structure is mixed, comprising other buildings, and made surfaces, such as roads and pavements. In addition, standard deciduous trees line the main service roads to the north, south and east.
- 1.3.4 Artificial lighting is located adjacent to Building A (and adjacent properties) and impacts all elevations. A recycling centre located directly adjacent to the Site operates large security floodlights at night which directly impacts the Site.
- 1.3.5 Near-continuous urban development extends to the west, and northeast of Building A.
- 1.3.6 The Brecon Beacon National Park is located ≈2.4km north of the Site and dominates the landscape to the north.

1.4 Policy and Legislation

- 1.4.1 In Britain, all bat species and their roosts are legally protected, by both domestic and international legislation. This means you may be committing a criminal offence if you:
- Deliberately take, injure, or kill a wild bat.
 - Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats.
 - Damage or destroy a place used by bats for breeding or resting (roosts) (even if bats are not occupying the roost at the time).

- Possess, advertise, sell, exchange a bat of a species found in the wild in the EU (dead or alive) or any part of a bat.
 - Intentionally or recklessly obstruct access to a bat roost.
- 1.4.2 Nesting and nest-building birds are protected under the Wildlife and Countryside Act WCA 1981 (as amended). Some species (listed in Schedule 1 of the WCA) are protected by special penalties.
- 1.4.3 Subject to the provisions of the Act if any person intentionally:
- Kills, injures or takes any wild bird.
 - Takes, damages or destroys the nest of any wild bird while that nest is in use or being built.
 - Takes or destroys an egg of any wild bird.
- 1.4.4 The Natural Environment and Rural Communities (NERC) Act 2006 places a duty on Government Departments to have regard for the conservation of biodiversity and maintains lists of species and habitats which are of principal importance for the purposes of conserving biodiversity in England and Wales. These lists include a number of bird species.
- 1.4.5 In addition to this, some rarer species, such as barn owls are afforded extra protection. Please refer to the original legislation for the definitive interpretation.
- 1.4.6 The framework for this protection is provided within three pieces of legislation from the Government of Wales and the UK Government.
- 1.4.7 These are:
- The Conservation of Habitats and Species Regulations (2017) - as amended.
 - The Environment (Wales) Act 2016.
 - The Wildlife and Countryside Act (1981) - as amended.
- 1.4.8 Additional information on the legal scope of these acts can be found in Table 1.2 (below) and a link to the full documentation can be found in, 'References and Bibliography.'

1.5 Survey Aims & Objectives

- 1.5.1 Considering this legal framework and local planning requirements, the objectives of this survey were to:
- Determine if bat roosts are present or likely to be present on the Site.
 - Consider if nesting birds are present - which might be affected by the development proposals.
 - Gather sufficient information to be able to make appropriate recommendations, inform any constraints, and associated planning requirements.

Figure 1: Site Location



Date: February 2023

Produced by: Little Wing Ecology

Job Reference: LT062-PRA

Author: N S Aldridge

QGIS Development Team, <2022>. QGIS Geographic Information System. Open-Source Geospatial Foundation Project.
<http://qgis.osgeo.org>.

Figure 2: A Site Plan



Key

- ▭ Site Boundary
- ▭ Buildings

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Figure 3: Development Plans



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Bont Playing Field, Gellifaelog Old Road, CF47 9HH | February 2023

Photographs		Description
		Photograph 1 & 2: Site Overview: Bont playing field. Taken from the south, looking northeast and looking northwest respectively.
		Photograph 3 & 4: Eastern Elevation: Building A – The clubhouse. Located midway along the western boundary. The eastern and western elevations respectively.
		Photograph 5: Northern Elevation: Building B – The Stand Taken from the east, looking west.

Table 1.1: Site Photographs

Policy	Description
Conservation of Habitats and Species Regulations 2017 (as amended)	Bats are specifically protected by the Conservation of Habitats and Species Regulations 2017 (as amended) (The Habitat Regulations). The Habitat Regulations are the way in which EU legislation is transposed into UK law. All species protected via this legislation are defined as 'European Protected Species.' The Habitat Regulations make it an offence to deliberately capture, kill, disturb, or trade in European Protected Species (i.e. those listed on Schedule 2), of which all UK bats are included. However, these actions can be made lawful through the granting of a license by Natural Resources Wales (NRW). Licenses may be granted for a number of purposes but only after the LPA and NRW is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on the wild populations of bats.
The Environment (Wales) Act 2016	Section 7 of the Environment (Wales) Act 2016 requires all statutory authorities including Local Planning Authorities (LPA) to have due regard for living organisms and types of habitats that are of key significance to sustain and improve biodiversity in relation to Wales. Furthermore, the LPA have a duty under the Act to take all reasonable steps to maintain and enhance the living organisms and types of habitats included on any list published under Section 7 and to encourage others to take such steps.
Wildlife and Countryside Act 1981 (as amended)	The Wildlife and Countryside Act 1981 (as amended) (The WCA 1981) is the principal legislation by which most species are protected in Wales. Bats are protected under Schedule 5 of the WCA 1981, which makes it an offence to damage or destroy a bat roost; intentionally or recklessly disturb a bat or a roost, or intentionally or recklessly obstruct access to a roost. The interpretation of a bat roost is "any structure or place which any wild [bat]...uses for shelter or protection". Because bats tend to reuse the same roosts, the legal opinion is that the roost is protected whether or not the bats are present at the time. In relation to birds, the WCA 1981 makes it an offence to intentionally kill, injure or take any wild bird; take, damage or destroy the nest of any wild bird while that nest is in use or being built. Schedule 1 of the WCA Act 1981 includes bird species for which addition the additional offence of disturbing these species at their nests or their dependent young.

Table 1.2: Bats and The Law: Legislation in Wales and the UK

SECTION TWO: THE SURVEY METHOD

2.1 Desktop Survey: Bats

- 2.1.1 Available records of bats were collated from the local record centre, the South East Wales Biodiversity Records Centre (SEWBRc), along with any non-statutory designated sites known to support bat species, within a 2 km radius of the site, in October 2022. A search for statutory sites designated for bats within 10 km the site was performed using the Multi-Agency Geographic Information for the Countryside (MAGIC) website.

2.2 Desktop Survey: Habitat

- 2.2.1 A review of aerial photography was undertaken to assess the provision of suitable foraging and commuting habitat within proximity to Building A. This information was used in combination with a review of statutory designated sites, via the MAGIC website, including Special Areas of Conservation (SAC) and Sites of Special Scientific Interest (SSSI) to help in confirming the presence of bat species locally.
- 2.2.2 Satellite Image: Figure 4.
- 2.2.3 Bats are considered cryptic species and therefore it can be difficult to confirm whether they are present or not. Although the provision of a Local Environmental Records Centre data search would provide a range of information, such records can only be relied upon as relative where they are reasonably recent and when supplied by an experienced bat surveyor. It was therefore considered necessary to undertake a detailed survey regardless of the data search results, as this is most likely to be beyond the acceptability of current data as defined in BS 42020:2013 Biodiversity: Code of practice for planning and development and will not be as effective as spending time examining and or monitoring the buildings for the presence of bats.

2.3 Survey Details

Survey Date(s): Tuesday 7th February 2023

Surveyor(s): N. S. Aldridge (a Natural Resources Wales [NRW] licenced bat worker)

Surveyor(s) Details: Table 2.1

Weather conditions: Table 3.6

- 2.3.1 During the field survey, an assessment of the habitats on-site and beyond the site boundary was undertaken. The aim of this was to identify potential commuting and foraging corridors, and suitable foraging sites. This enabled the suitability of the location for bats to be determined.
- 2.3.2 A potential nest and roost assessment survey was carried out on the interior and exterior of Building A by Nic Aldridge, a Natural Resources Wales (NRW) licenced bat worker. Nic has over six years of experience in surveying bats throughout Wales, specialising in surveying buildings for residential extensions and barn conversions (Table 2.1).
- 2.3.3 The external fabric of the structure was methodically inspected using close-focusing binoculars and a high-powered torch for potential access points such as gaps in the fabric of the building, beneath lifted roof materials or other gaps in the roof. Loose flashing, smudge marks and droppings on walls directly below eaves and gables etc were also searched for. A description of the building, including construction material and current condition was recorded.
- 2.3.4 Internally, the building was searched using a high-powered torch to identify possible links to exterior roost entrances and clear signs of presence via urine staining, feeding remains, odour, piles of droppings, live bats and bat carcasses. The space was also examined in the dark to identify areas where the presence of light would identify potential entry points for birds and bats. The aim of this survey was to determine the actual or potential presence of bats and the need for further survey and/or mitigation.

2.3.5 Weather conditions at the time of survey were assessed using the Beaufort wind force scale and the Okta scale of cloud cover (see Table 3.6 for details, timings, and weather conditions at the time of the survey).

2.4 Nesting Birds

2.4.1 Nesting birds were also considered at the time of the survey, with the surveyor looking for signs of bird activity, nests, nest building, feeding at nest sites, and evidence of collections of bird droppings, feathers, or any other indications of use by birds.

2.5 Additional Ecological Considerations

2.5.1 Whilst a full ecological appraisal was not undertaken at the Site, a note was made of any additional ecological considerations identified during the survey. For ease of reference these have been included within this report.

2.6 Limitations of the Survey Method

- 2.6.1 No limitations were recorded during the field survey.
- 2.6.2 The field survey was conducted outside of the bat breeding season, but this being said, it is possible to assess the suitability of structures for roosting bats throughout the year and identify many species in some circumstances.

2.7 Meet Our Survey Team

Name / Licence	Experience
Nicholas Aldridge (BSc (Hons), MSc., & PGCE) Ecologist with Little Wing Ecology NRW Bat Licence: S091427/1 (22 nd July 2022 - 21 st July 2024).	Nic Aldridge is the lead ecologist with Little Wing Ecology and the author of this report. He is a licensed bat worker with over 20 years' experience in education and conservation and over six years' experience surveying built-structures, open habitats, and woodlands for bats. Following a degree in Botany and Zoology, Nic completed an MSc in Wildlife Management, Conservation and Control, at the University of Reading. He has practical experience in field-based research with a focus on invertebrate and vegetation diversity and producing phase 1 habitat surveys and habitat management plans. He has carried out the ringing of Daubenton's bats as part of a multi-year project on the species and has undertaken monitoring work on several important lesser horseshoe bat roosts. He has attended courses with the Bat Conservation Trust to improve his knowledge and skills and has led voluntary projects to develop habitats and collect species data. Nic founded Little Wing Ecology in 2021 as a social enterprise, to use the skills and expertise of an ecological consultancy to work with the local community, support local conservation projects and provide training and education for the next generation of ecologists.

Table 2.1: The Survey Team

Figure 4: Satellite Image Showing the Site Location in Relation to the Local Environment



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QGIS Development Team, <2022>. QGIS Geographic Information System. Open-Source Geospatial Foundation Project.
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SECTION THREE: RESULTS

3.1 Desktop Survey Results

3.1.1 During the Preliminary Roost Assessment (PRA) a request was placed with the South East Wales Biodiversity Records Centre (SEWBRc) for records of bat and bird species within the local vicinity of the proposed development site along with records of statutory and non-statutory sites (within 1km). In addition, the survey location was examined by consulting Magic Map. No part of the Site contains, or is within, any statutory sites of nature conservation interest, such as a Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC), National Nature Reserves (NNRs) or Local Nature Reserves (LNRs) etc.

3.1.2 LERC Reference: 0223-819

3.1.3 N.B. Due to the nature and proximity of this site to local habitat features, care was taken to identify foraging and commuting potential and identify connectivity with the surrounding habitat.

3.1.4 There are no Sites of Species Scientific Interest (SSSIs) on or adjacent to the site. The nearest SSSI are 'Cwm Tâf Fechan Woodland,' which is located ≈2.2km northwest of the Site and 'Cwm glo a Glyndyrys,' which is located ≈2.6km southwest of the Site. Two SINC's are located close to Building A, 'afon Tâf Fechan,' ≈2.4km northwest and the Afon Tâf ≈2.4km west of the Site. A summary of statutory, non-statutory sites and local habitat features are presented below.

Name	Designation	Distance (metres)	Connectivity
There are no statutory sites within 1km of the Site.	n/a	n/a	n/a
Cwm Tâf Fechan Woodland	SSSI	≈2200	Low
Brecon Beacons Nation Park	National Park	≈2400	Low
Cwm glo a Glyndyrys	SSSI	≈2600	Low

Table 3.1: Statutory Sites within 1km of the Site

Name	Designation	Distance (metres)	Connectivity
Afon Tâf Fechan	SINC	≈2400	High
Afon Tâf	SINC	≈460m	High
Beelines Designation	Conservation initiative	On-site	High

Table 3.2: Non-Statutory Sites within 1km of the Site

Description	Notes	Distance (metres)	Connectivity
Broadleaved woodland	Fragmented broadleaved woodlands are scattered throughout the settlement of Merthyr Tydfil. the closest and most significant locally is located ≈320m to the south of the Site, running alongside Goat Mill Road.	<320m	Moderate
Mixed Mainly Conifer	There are two small sections of this habitat type with 1km of the site, the nearest being ≈600m to the northeast.	<600m	Low
Young Trees	There is a small area of young trees recorded ≈560m south of the Site, running alongside the A4060.	<560	Low

Table 3.3: Local Habitat Features within 1km of the Site

3.2 Species Records

3.2.1 The local biodiversity records provided by SEWBRc returned 196 species records including 168 records for bat species and 28 records for bird species locally. Some of these were too old to be considered viable. The closest (<1km) and most significant records are summarised below. There are seven records for bat species within 500m of Building A.

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Species Group	Species / Notes	Number of Records			Nearest Distance from Site (m)	Connectivity
		On-site	<500 m	0.5-1km		
Bats	Chiroptera (Bat) CAT1	0	1	0	277	High
	Pipistrellus pipistrellus (Common Pipistrelle) CAT1	0	1	4	439	Moderate
	Pipistrellus pygmaeus (Soprano Pipistrelle) CAT1	0	0	1	979	Low
	Eptesicus serotinus (Serotine)	0	0	1	779	Low
Birds	CAT1	0	2	3	423	Moderate
	CAT2	0	1	2	157	High
	CAT3	0	2	2	423	Moderate

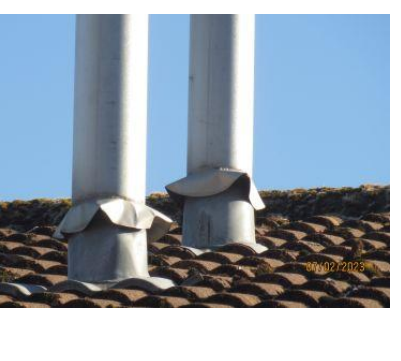
Table 3.4: Local Records for Bat and Bird Species within 1km of the Site

3.3 Satellite Images

3.3.1 Fragmented broadleaved woodlands are scattered throughout the settlement of Merthyr Tydfil. the closest and most significant locally are a run of scattered standard deciduous trees which line the main service roads to the north, south and east. This treeline form a significant linear feature in the landscape and provides connectivity north, south and east through the settlement of Merthyr Tydfil, and to the wider landscape. In addition, this provides connectivity to a significant woodland feature ≈350m south of the Site.

3.4 Preliminary Roost Assessment

Description	Potential Nest and Roost Assessment	Evidence	Assessment	Photographic Evidence
<u>Building A: Southern Elevation</u> <u>Soffits and Facias</u> Penydarren Boys and Girls Club Amenity playing-field A single-storey block-built structure with a cement mortar, concrete roof tiles and a bitumen roofing membrane.	No significant gaps were recorded on the exterior of the southern elevation. All exterior fixtures were well sealed and in good order.  	No evidence of nesting birds or roosting bats.	Negligible (Bats) Negligible (birds)	
<u>Building A: Western Elevation</u> <u>Soffits and Facias</u> Penydarren Boys and Girls Club Amenity playing-field A single-storey block-built structure with a cement mortar, concrete roof tiles and a bitumen roofing membrane.	A gap is present between the barge board and the wall plate all along the western elevation. This provides access to the interior roof-space.  	No evidence of nesting birds or roosting bats.	Moderate (Bats) Low (birds)	

<u>Building A: Western Elevation</u> <u>Flues</u> Penydarren Boys and Girls Club Amenity playing-field A single-storey block-built structure with a cement mortar, concrete roof tiles and a bitumen roofing membrane.	No significant gaps were recorded around the flues. All exterior fixtures were well sealed and in good order.	No evidence of nesting birds or roosting bats.	Negligible (Bats) Negligible (birds)	
<u>Building A: Eastern Elevation</u> <u>Soffits and Roofing</u> Penydarren Boys and Girls Club Amenity playing-field A single-storey block-built structure with a cement mortar, concrete roof tiles and a bitumen roofing membrane.	No significant gaps were recorded on the exterior this elevation. All exterior fixtures were well sealed and in good order. 	No evidence of nesting birds or roosting bats.	Negligible (Bats) Negligible (birds)	
<u>Building A: Northern Elevation</u> <u>Soffits and Facias</u> Penydarren Boys and Girls Club Amenity playing-field A single-storey block-built structure with a cement mortar, concrete roof tiles and a bitumen roofing	No significant gaps were recorded on the exterior this elevation. All exterior fixtures were well sealed and in good order. 	No evidence of nesting birds or roosting bats.	Negligible (Bats) Negligible (birds)	

membrane.				
<u>Building A: Interior</u> <u>Main Building</u> Penydarren Boys and Girls Club Amenity playing-field A single-storey block-built structure with a cement mortar, concrete roof tiles and a bitumen roofing membrane.	No gaps or openings to the exterior were recorded. 	No evidence of nesting birds or roosting bats.	Nil (Bats) Nil (birds)	
<u>Building A: Interior</u> <u>Roof Space</u> Penydarren Boys and Girls Club Amenity playing-field A single-storey block-built structure with a cement mortar, concrete roof tiles and a bitumen roofing membrane.	A modified queen-post roof was present. Light penetration was recorded along the eaves to the western and eastern elevations. An exterior inspection documented that while this feature would allow access to the roof space on the western elevation, the eaves to the eastern elevation were sealed with a grill/vent. A minor tear was recorded in the bitumen felt. 	No evidence of nesting birds or roosting bats.	Moderate (Bats) Low (birds)	

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<u>Building B: Eastern Elevation</u> <u>Spectators Stand</u> Penydarren Boys and Girls Club Amenity playing-field A single-storey block-built structure with a sheet metal roof.	A sheet metal roof is exposed to the underside. No suitable gaps were recorded on this structure.	No evidence of nesting birds or roosting bats.	Negligible (Bats) Negligible (birds)	
<u>Habitat</u> Penydarren Boys and Girls Club Amenity playing-field An astroturf playing surface	The playing surface is covered in astroturf. The grounds are well maintained and offer little/no opportunities for foraging animals. 	No evidence of nesting birds or roosting bats.	Negligible (Bats) Negligible (birds)	
Identification: Tree 1 Common Name: European Alder Latin Name: <i>Alnus glutinosa</i> Size: Mature tree Location: South of the Site (Figure 5)	No observations were made of damaged branches.	There was no evidence of bats during an external, ground level examination.	Negligible risk (bats) Low risk (birds)	

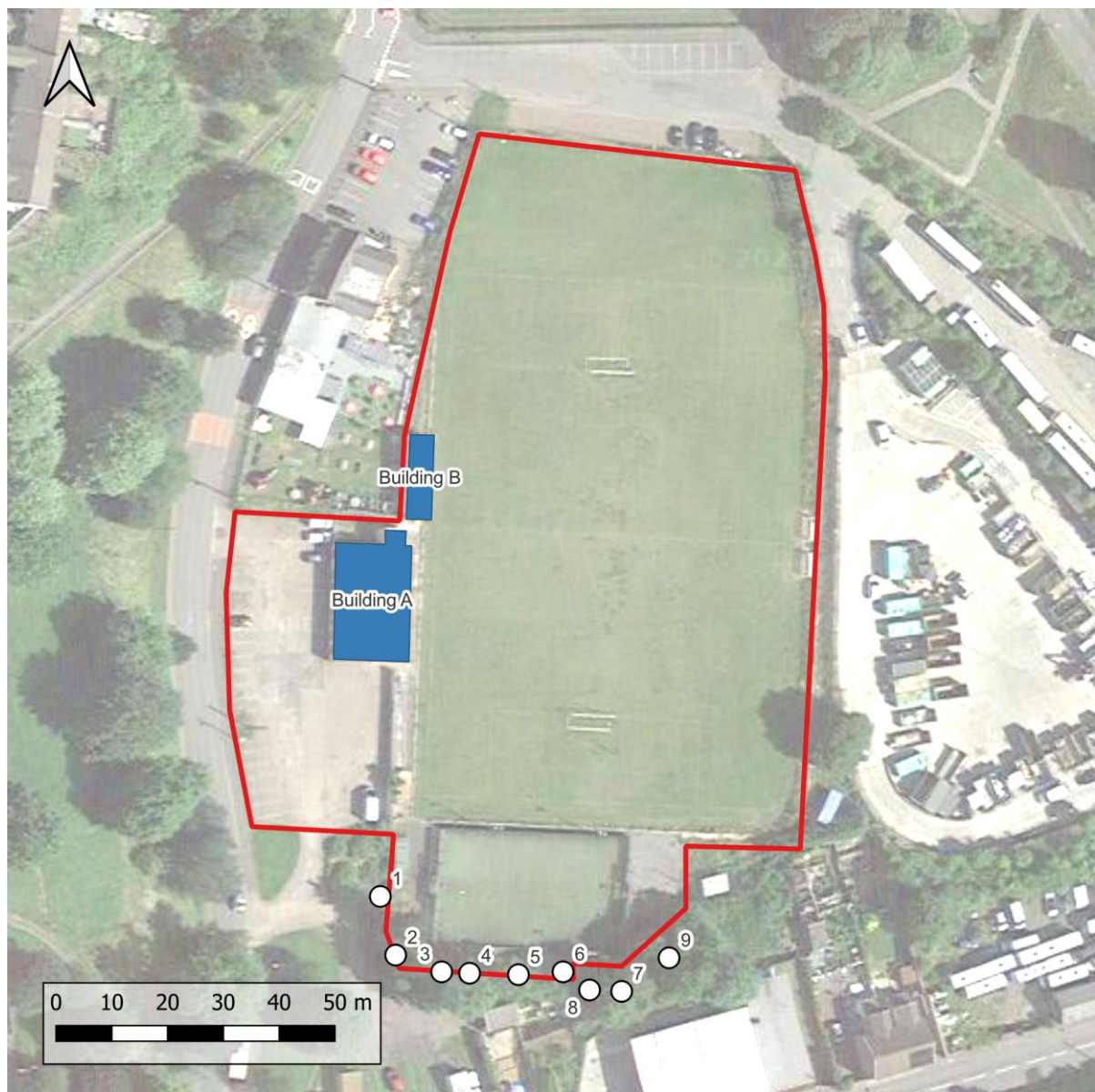
Identification: Tree 2 Common Name: European Alder Latin Name: <i>Alnus glutinosa</i> Size: Mature tree Location: South of the Site (Figure 5)	No observations were made of damaged branches.	There was no evidence of bats during an external, ground level examination.	Negligible risk (bats) Low risk (birds)	
Identification: Tree 3 Common Name: European Alder Latin Name: <i>Alnus glutinosa</i> Size: Mature tree Location: South of the Site (Figure 5)	No observations were made of damaged branches.	There was no evidence of bats during an external, ground level examination.	Negligible risk (bats) Low risk (birds)	
Identification: Tree 4 Common Name: Elder Latin Name: <i>Sambucus nigra</i> Size: Mature tree Location: South of the Site (Figure 5)	No observations were made of damaged branches.	There was no evidence of bats during an external, ground level examination. Any gaps present are considered too small to offer suitable opportunities for bats.	Low risk (bats) Low risk (birds)	

Identification: Tree 5 Common Name: European Alder Latin Name: <i>Alnus glutinosa</i> Size: Mature tree Location: South of the Site (Figure 5)	No observations were made of damaged branches.	There was no evidence of bats during an external, ground level examination.	Negligible risk (bats) Low risk (birds)	
Identification: Tree 6 Common Name: European Alder Latin Name: <i>Alnus glutinosa</i> Size: Mature tree Location: South of the Site (Figure 5)	No observations were made of damaged branches. Minor peeling bark and rot in places.	There was no evidence of bats during an external, ground level examination. Any gaps present are considered too small to offer suitable opportunities for bats.	Negligible risk (bats) Low risk (birds)	
Identification: Tree 7 Common Name: European Alder Latin Name: <i>Alnus glutinosa</i> Size: Mature tree Location: South of the Site (Figure 5)	No observations were made of damaged branches.	There was no evidence of bats during an external, ground level examination.	Negligible risk (bats) Low risk (birds)	

Identification: Tree 8 Common Name: Sycamore Latin Name: <i>Acer pseudoplatanus</i> Size: Mature tree Location: South of the Site (Figure 5)	No observations were made of damaged branches.	There was no evidence of bats during an external, ground level examination.	Negligible risk (bats) Low risk (birds)	
Identification: Tree 9 Common Name: Sycamore Latin Name: <i>Acer pseudoplatanus</i> Size: Mature tree Location: South of the Site (Figure 5)	No observations were made of damaged branches.	There was no evidence of bats during an external, ground level examination.	Negligible risk (bats) Low risk (birds)	

Table 3.5: Preliminary Roost Assessment

Figure 5: Location of Target Trees – Off-site/Adjacent (PRA)



Key

- Target Trees
- Buildings
- Site Boundary

Date: February 2023

Produced by: Little Wing Ecology

Job Reference: LT062-PRA

Author: N S Aldridge

QGIS Development Team, <2022>. QGIS Geographic Information System. Open-Source Geospatial Foundation Project. <http://qgis.osgeo.org>.

3.5 Field Survey Details & Weather Conditions

3.5.1 The field survey was conducted outside of the breeding season. An active bat population prefers temperatures exceeding 10°C with low wind speeds.

Date	Survey Type	Surveyor	Variable	Start (GMT)	End (GMT)
07.02.2023	Site inspection Preliminary roost assessment Interior and exterior	N S Aldridge	Survey Times (BST)	09.45	11.25
			Temperature (°C)	14.5	15
			Cloud Cover (Oktas)	0	0
			Wind (Beaufort scale)	F0	F0
			Humidity	42	43
			Precipitation (%)	Nil	Nil

Table 3.6: Field Survey Details – Weather, Time & Temperature

3.6 Suitability for Hibernating Bats

3.6.1 Using a degree of academic supposition, the features identified within the PRA are not considered to be suitable at offering the hibernating conditions that bats prefer.

3.7 Risk Assessment Summary

3.7.1 No evidence of bats was recorded internally or externally. A single potential access point was identified.

3.7.2 A Preliminary Roost Assessment (PRA) recorded a single feature of interest. A gap between the barge board and the wall plate which ran the length of the western elevation. This feature offers access to the interior roof space. No evidence of bat activity was recorded. While this feature is considered to offer a moderate risk for supporting a bat roost it is not directly impacted upon by the new floodlights. The new lighting directly impacts the eastern elevation.

3.8 Nesting Birds

3.8.1 No records were made for nesting birds having previously used Building A or B.

3.9 Additional Ecological Constraints

3.9.1 The run of scattered standard deciduous trees which line the main service roads to the north, south and east provide potential use for roosting and foraging bats (in addition to nesting opportunities for many bird species). This treeline forms a significant linear feature in the landscape and provides connectivity north, south and east through the settlement of Merthyr Tydfil, and to the wider landscape. In addition, this provides connectivity to a significant woodland feature ≈350m south of the Site.

SECTION FOUR: DISCUSSION & CONCLUSIONS

- 1.4.2 **The Structure:** The Site occupies an amenity space of approximately 80m x 100m. Building A is a single storey, block-built, late-20th century detached structure. Roofing materials on Building A consist of concrete tiles with uPVC soffits/fascias and uPVC guttering. Building B is a block-built spectators stand with a sheet metal roof. The Site is situated off a main service road (Gellifaelog Old Road), ≈900m south of the A465 (Heads of the valleys road), within the eastern boundary of the settlement of Penydarren, 2km northeast of Merthyr Tydfil town centre. Near-continuous urban development extends to the west, and northeast of Building A.
- 1.4.3 **Local Records:** The local biodiversity records provided by SEWBrEC returned 196 species records including 168 records for bat species and 28 records for bird species locally. Some of these were too old to be considered viable. The closest (<1km) and most significant records are summarised below. There are seven records for bat species within 500m of Building A.
- 1.4.4 **Statutory and Non-statutory Sites:** There are no Sites of Species Scientific Interest (SSSIs) on or adjacent to the site. The nearest SSSI are 'Cwm Tâf Fechan Woodland,' which is located ≈2.2km northwest of the Site and 'Cwm glo a Glyndyrys,' which is located ≈2.6km southwest of the Site. Two SINCs are located close to Building A, 'afon Tâf Fechan,' ≈2.4km northwest and the Afon Tâf ≈2.4km west of the Site. A summary of statutory, non-statutory sites and local habitat features are presented below.
- 1.4.5 **Habitat & Connectivity:** Habitat in the immediate vicinity of the structure is mixed, comprising other buildings, and made surfaces, such as roads and pavements.
- 1.4.6 Fragmented broadleaved woodlands are scattered throughout the settlement of Merthyr Tydfil. the closest and most significant locally are a run of scattered standard deciduous trees which line the main service roads to the north, south and east. This treeline form a significant linear feature in the landscape and provides connectivity north, south and east through the settlement of Merthyr Tydfil, and to the wider landscape. In addition, this provides connectivity to a significant woodland feature ≈350m south of the Site.
- 1.4.7 The playing surface is covered in astroturf. The grounds are well maintained and offer little/no opportunities for foraging animals.
- 1.4.8 The Brecon Beacon National Park is located ≈2.4km north of the Site and dominates the landscape to the north.
- 1.4.9 **Evidence:** No evidence of bats was recorded internally or externally.
- 1.4.10 **Hibernating Bats:** Using a degree of academic supposition, the features identified within the PRA are not considered to be suitable at offering the hibernating conditions that bats prefer.
- 1.4.11 **Impact Assessment:** A Preliminary Roost Assessment (PRA) recorded a single feature of interest. A gap between the barge board and the wall plate which ran the length of the western elevation. This feature offers access to the interior roof space. No evidence of bat activity was recorded. While this feature is considered to offer a moderate risk for supporting a bat roost it is not directly impacted upon by the new floodlights. The new lighting directly impacts the eastern elevation.
- 1.4.12 The floodlights, which are the focus of this development have restricted use. They are generally used 3 - 4 evenings a week between October – March (5pm - 8pm).
- 1.4.13 Taking all of the evidence into account and considering the nature of the works, the feature identified at the western elevation of Building A will likely remain unaffected by the development. The floodlights are located at the east of Building A and there will be no direct light spill on this feature during the limited time the lights are in use (October – March). This feature would be most likely of interest to bats during the summer months (May-September).

- 1.4.14 The Site is impacted on by adjacent artificial street lighting on Gellifaelog Old Road but more significantly by security floodlights at the adjacent recycling centre (off-site). While the floodlights which are the focus of the development are restricted in use to the winter months, when bats are in the most part hibernating (October – March), the adjacent (off-site) security lights which directly impact the playing field are in use year-round.
- 1.4.15 Existing plans could change the character of the Site by introducing additional artificial lighting and reduce its suitability for foraging and commuting bats locally, but the use of these lights will be strictly limited and will only be used during the winter months when bats are less active. It is therefore considered that the proposed development is unlikely to impact on bat interest at the Site.
- 1.4.16 Taking the conclusions of this report into consideration, bat roosts are considered likely absent from the Site. Bat interest at Building A is considered to be of negligible conservation significance (Mitchell-Jones 2004) with breeding bats, not a concern. It is therefore considered that there are no specific restrictions or limitations apply.
- 1.4.17 **Nesting Birds:** No records were made for nesting birds having previously used Building A or B.
- 1.4.18 **Additional Ecological Constraints:** The run of scattered standard deciduous trees which line the main service roads to the north, south and east provide potential interest for roosting and foraging bats (in addition to nesting opportunities for many bird species). This treeline forms a significant linear feature in the landscape and provides connectivity north, south and east through the settlement of Merthyr Tydfil, and to the wider landscape. In addition, this provides connectivity to a significant woodland feature ≈350m south of the Site.
- 1.4.19 Due to the quality of this adjacent habitat, it is considered that the proposed works would benefit from the inclusion of artificial roost boxes on the southern elevation of Target Trees 1-9 (see section 5 – enhancement features).

SECTION FIVE: RECOMMENDATIONS & ENHANCEMENTS

Based on the results of this survey report the following recommendations have been made.

5.1 Recommendation 1 (Post Development Enhancements)

Under the Environment (Wales) Act 2016, public authorities (including local councils and the National Parks), 'must seek to maintain and enhance biodiversity in the exercise of functions in relation to Wales, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of those functions.' This replaces the section 40 duty in the Natural Environment and Rural Communities Act 2006 (NERC Act 2006), in relation to Wales, which states that; 'All public authorities have a statutory duty to conserve biodiversity in all of their functions.'

Local authorities are legally required to make efforts to protect and enhance wildlife and its habitat and this is executed, in part, through the requirement of an ecological assessment for planned development sites and, therefore, we recommend the following principles of design should be followed:

- **Bats:** To encourage bat roosting activity and increase roosting opportunities locally - post-development, the inclusion of two F2 Schwegler Bat Boxes (or similar - table 5.1) on the southern or south-western elevation of mature trees within the southern boundary of the Football Club Grounds. These to be fitted at a height of >3m. The location to be identified under the direction of a suitably qualified ecologist.
- **Birds:** Enhancement for nesting birds on-site to be provided by the addition of fitting one B1 Schwegler Nest Box and one 2H Schwegler Robin Boxes (or similar - table 5.1) on the northern or north-eastern elevation of mature trees within the southern boundary of the Football Club Grounds. The location to be identified under the direction of a suitably qualified ecologist.

Product	Information
	<u>F2 Schwegler Bat Box</u> NHBS Accessed 12/10/2022. Available at: www.nhbs.com N.B. this is given as an example only. Many other suitable products are available.
	<u>B1 Schwegler Nest Box</u> NHBS Accessed 12/10/2022. Available at: www.nhbs.com N.B. this is given as an example only. Many other suitable products are available.
	<u>2H Schwegler Robin Boxes</u> NHBS Accessed 12/10/2022. Available at: www.nhbs.com N.B. this is given as an example only. Many other suitable products are available.

Table 5.1: Enhancement Features

SECTION SIX: ADDITIONAL INFORMATION

6.1 ENCOUNTERING A PROTECTED SPECIES DURING WORKS

- 6.1.1 If at any point during works a protected species is encountered on-site, it is essential that all work is to cease and that a suitably experienced ecologist is contacted for advice.

6.2 EXPIRATION OF THIS REPORT

- 6.2.1 Should works not start within two years (i.e., February 2025) further survey and assessment will be necessary to qualify the results of this report and its recommendations.
- 6.2.2 This report is valid for two years (i.e., February 2025).

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About Us

Little Wing Ecology is a not-for-profit ecological consultancy based in the South Wales Valleys. Specializing in bat surveys for housing developments, but providing a wide range of ecological services, it provides appropriate expertise on behalf of a range of clients.

We are a small ecological consultancy dedicated to providing an easy-to-use and jargon-free service. We produce the following products:

- Preliminary Ecological Appraisal
- Preliminary Roost Assessment
- Bat Surveys
- Mitigation Planning
- European Protected Species License Applications
- On-site Services to Support Planning Applications and Development

As a Consultancy, we use our experience, expertise, and love of wildlife to provide an easy to access and pragmatic service, that upholds the highest standards of conservation.

As a Not-for-Profit Social Enterprise, we reinvest our profits. We work with valleys communities, conservation groups, local authorities, and other groups to support these three key areas:

A. Helping Nature

Developing and supporting habitat gain in the valleys through:

- Habitat improvement.
- Developing the built environment for the benefit of wildlife.
- Long-term monitoring projects for wildlife populations in the valleys.

B. Working with People

- Providing employment, training and voluntary opportunities for the local community and young people to help them build their skills, develop a stronger relationship with nature and build confidence in themselves.

C. Supporting Communities

- Reinvesting in nature and people, locally.
- Supporting education within communities to promote a positive relationship between people and wildlife.
- Providing pro-bono surveys for worthwhile causes.

Adroddiad Arolwg gan



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