

A Preliminary Ecological Appraisal Report

on behalf of
Mr Anthony Mee

for
Land at The Oval
Pantyffyn Road
Mountain Hare
Merthyr Tydfil
CF47 0JA



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Project Overview

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The assessments made assume that the site(s) and facilities will continue to be used for their current purpose without significant change. The conclusions and recommendations contained in this Report are based upon information provided by others and upon the assumption that all relevant information has been provided by those parties from whom it has been requested. Information obtained from third parties has not been independently verified by Little Wing Ecology (CYF).

Executive Summary

The owners of the 'The Oval,' are preparing a planning application for Merthyr Tydfil County Borough Council, the local authority, for a storage unit, associated with an existing recreation field. To support the planning application, Little Wing Ecology (CYF) was commissioned to undertake a Preliminary Ecological Appraisal Report. This survey was undertaken in the February of 2025.

The preliminary ecological appraisal was undertaken in accordance with standard phase 1 habitat techniques and following national guidelines for preliminary ecological appraisals (2nd Ed, 2017). This included a desktop study and field survey. In addition, a preliminary roost assessment and daytime bat walkover was conducted in accordance with the Bat Conservation Trust's good practice guidelines (4th Edition, 2023).

The site comprises a former area of industrial spoil associated with the Dowlais Iron works, which was re-developed as sports fields circa 1999. The larger site is dominated by an amenity grassland, bordered by improved (successional) grassland, scrub, woodland and introduced shrub.

While no statutory sites will be impacted by the proposals, the site has good connectivity east and west via a woodland corridor which follows the site's southern boundary. The combination of low light levels at the site and the quality of the available habitat at the adjacent woodland (for foraging and commuting bats, especially light-sensitive species such as the greater horseshoe bats, which have been recorded locally) requires mitigation to avoid any negative impact in the short and long term.

Within the development zone (i.e., the site of the new storage unit) ground vegetation consists of sparse bramble, small shrubs and leaf litter which will be removed during site clearance. This small section of habitat provides limited opportunities for small mammals and amphibians which includes foraging and shelter. The adjacent ditch (with standing water) and water-logged ground, while lacking records of protected or priority species, offers potential habitat for amphibians, reptiles, and foraging bats, necessitating proportionate mitigation measures. Given the local presence of great crested newts and the suitability of the off-site waterbody, a precautionary method statement for GCN will be implemented.

Following guidelines set out on Bat Conservation Trusts Good Practice Guidelines (Collins, J. [Ed.] 2023), the development site was categorised as offering no opportunities for roosting bats and no additional survey effort is required in regard to roosting bats at this time. While no evidence of bats was recorded during the PRA, care must be taken to avoid impact to the commuting and foraging opportunities proffered along the site boundaries. This includes potential impacts at the adjacent buildings (changing rooms) which were assessed as part of the PEA.

As European hedgehog have been recorded locally (~541m), it is recommended that precautions are incorporated during the construction phase.

The adjacent vegetation provides multiple and varied opportunities for nesting birds. Therefore, mitigation for bird species and general advice on the legal status of breeding birds is given in this report.

Recommendations are presented in Section Six.

Under The Environment (Wales) Act (2016) the planning authority has a statutory duty to have regard for the conservation of biodiversity. Details of planned site enhancements are also made in this report.

This Executive Summary is intended to provide an overview of the assessment of the proposed development 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 The owners of the 'The Oval,' are preparing a planning application for Merthyr Tydfil County Borough Council, the local authority, for a storage container, associated with an existing recreation field. To support the planning application, Little Wing Ecology (CYF) was commissioned to undertake a Preliminary Ecological Appraisal Report to inform the client of any constraints, and associated planning requirements with regards to habitat and protected species, and to inform a planning application. For the purposes of this report this will be referred to as 'the site.' This survey was undertaken in the January of 2025.
- 1.1.2 This report contains the results from a desktop study, habitat survey and a daytime bat walkover. Following the preliminary investigations, an assessment of the likely impact of proposed works on protected and priority species at the site was carried out. This report has been prepared with recommendations for enhancement features to improve opportunities for local species post-development.

1.2 Site Description

- 1.2.1 The site comprises a former area of industrial spoil associated with the Dowlais Iron works, which was re-developed as sports fields circa 1999. The larger site is dominated by an amenity grassland, bordered by improved (successional) grassland, scrub, woodland and introduced shrub. The site's centre has a National Grid Reference (NGR) of SO 05942 06331 and lies at an altitude of approximately 253m above Ordnance Datum (AOD).

1.3 Policy and Legislation

- 1.3.1 Under Regulations 9 (1 & 5) of the Habitat Regulations, local authorities have a duty to have regard for the requirements of the Habitats Directive. This includes maintaining populations of European Protected Species in "favourable conservation status", and potential for such protected species (for example, bats) should be considered when carrying out a preliminary assessment.
- 1.3.2 The framework for this protection is provided within several pieces of legislation from the Government of Wales and the UK Government. Furthermore, several pieces of legislation exist that are specifically relevant to individual species. These include:
- Conservation of Habitats and Species Regulations 2010.
 - The Conservation of Habitats and Species Regulations (2017) - as amended.
 - The Environment (Wales) Act 2016.
 - The Wildlife and Countryside Act (1981) - as amended.
 - Conservation of Habitats and Species Regulations 2017.
- 1.3.3 Additional information on the legal scope of these acts can be found in the Appendix and a link to the full documentation can be found in the references and bibliography section, and the Appendix.

1.4 Survey Aims and Objectives

- 1.4.1 Considering the legal framework and local planning requirements, the objectives have been broken down as follows:
- assessing whether proposals are reasonably likely to impact protected species or ecologically valuable habitats,
 - using survey findings to recommend appropriate mitigation measures for safeguarding biodiversity; and,
 - proposing measures for enhancing biodiversity in line with Planning Policy Wales 12 (PPW12).

SECTION TWO: THE SURVEY METHOD

2.1 Desktop Survey: Local Records (Methodology)

- 2.1.1 Prior to visiting the site, pre-existing information relevant to the location was assessed as part of a desktop survey. Good practice guidelines recommend a desktop survey to incorporate data from the local biodiversity records centre. To this end, a request was placed with the South East Wales Biodiversity Records Centre (SEWBReC) for records of protected and priority species within the local vicinity of the development site, along with records of statutory and non-statutory sites (within 1km).
- 2.1.2 This data was supplemented with a search of several online resources for the 10km square containing the site. This included, but was not limited to:
- The utilisation of the Magic Map, incorporating some habitats and protected sites e.g., special areas of conservation, sites of special scientific interest etc.
 - Study of OS maps and aerial photography (Google Maps).
 - The website of Natural Resources Wales (NRW) for details on designation reasons of protected sites.
 - An assessment of known data relating to previous surveys within the vicinity of the Site (by Little Wing Ecology and others) was also carried out. Only those species records occurring within the last ten years were considered relevant although consideration was taken of earlier records.
- 2.1.3 Some species, such as bats and reptiles, are considered cryptic and it can subsequently 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 ecologist. Due to the nature and proximity of the Site to local habitat features, care was taken to identify foraging and commuting potential and identify connectivity with the surrounding habitat.
- 2.1.4 A review of aerial photography was undertaken to assess the provision of suitable foraging and commuting habitat within proximity to the site. 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 protected and priority species locally (Figure 4).

2.2 Preliminary Habitat Assessment (Methodology)

- 2.2.1 A habitat assessment was made using standard phase 1 habitat techniques as the guiding principle. The surveyor(s) walked a rough zig-zag style pattern, making notes systematically and methodically of the habitat and conditions of the Site. This was then followed by a circuit/loop of the relevant site boundaries with additional notes being made where necessary. Photographs were taken of the site's boundaries along with areas of interest and areas that characterised the in-situ habitat.
- 2.2.2 During the survey, the potential for protected species was assessed and any signs and/or evidence of its use was noted. This included, but was not limited to:
- Nesting potential for birds at the time of the survey, with the surveyor(s) 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.
 - Features such as piles of rubble, banks or tree roots that could be used as refugia or hibernacula for reptiles and hedgehogs.
 - Water bodies that could provide opportunities for amphibians and/or reptiles.
 - Physical signs of other relevant species (if seen), such as droppings and/or latrines, footprints, hair, food remains or foraging marks.
 - Features that could be utilised by bats e.g., hollows in trees, peeling bark etc.
 - Any flora or fauna that may be endangered or protected under the Countryside Act.
 - Identify potential commuting and foraging corridors, and suitable foraging sites. This enables the suitability of the site for bats to be determined.

- 2.2.3 A daytime bat walkover (DBW) was carried out with the aim of identifying opportunities for roosting bats / potential roosting features (PRFs) and the need for further survey and/or mitigation. 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 Survey Constraints

- 2.3.1 No major constraints were encountered during the PEA and all habitats on site were broadly identified with confidence. However, it must be noted that this PEA assessment is not intended to confirm the presence or absence of all plant species on site. This would require a more detailed botanical assessment over multiple site visits between April and September. At any given time of year, it is not possible to identify all plant species by conducting a single visit, as different species emerge and flower at different times of the year. The sward height, management regime and weather conditions can hinder the identification of specimens. However, it is possible to classify habitats and identify many species throughout the year in most circumstances. The baseline conditions described in this report were accurate at the time at which the survey was undertaken. Since the assessment took place during February, it is likely that some species were not recorded. However, it does provide a comprehensive ecological assessment of habitat types and dominant species at the time of the survey and highlights areas where further survey effort would be required.

SECTION THREE: RESULTS OF THE DESKTOP SURVEY

- 3.1 No part of the site is within a statutory site of nature conservation interest. There are 18 statutory sites within 1km including Cwm Glo a Glyndyrys (SSSI – being the nearest at ≈1.7km).

Site Name	SAC	SSSI	NNR
Abercriban Quarries		X	
Baltic and Tyle'r-bont Quarries		X	
Bodwigiad a Nant y Deri		X	
Brecon Beacons		X	
Bryncarnau Grasslands, Llwydcoed		X	
Caeau Nant y Groes		X	
Cefn y Brithdir		X	
Cwar yr Ystrad a Cwar Blaen Dyffryn		X	
CWM CADLAN	X	X	X
Cwm Glo a Glyndyrys		X	
Cwm Taf Fechan Woodlands		X	
Daren Fach		X	
Lower House Stream Section		X	
Mynydd Llangynidr		X	
Nant Glais Caves		X	
Penmoelallt		X	
Tir Mawr a Dderi Hir, Llwydcoed		X	

Table 3.1: Statutory Sites within 10km

- 3.2 SEWBREC's record search (**unique reference 0245-842**) reported four non-statutory sites within 1km. Part of the site falls within a B-lines designated area. These sites are:

- East Glynmil (SINC) – 896m.
- Ancient Semi Natural Woodland (Priority Area) - > 500m.
- Restored Ancient Woodland Site (Priority Area) - > 500m.
- B-Lines (on-site).

- 3.3 The character of these designations will inform mitigation for the site.
- 3.4 A SEWBREC record search returned 623 species records. No records were documented on or directly adjacent to this site. These are briefly summarised in the bullet list below:
- Land mammals excluding bats accounted for 17 records (i.e., 2.7% of all species records). These are for hedgehog (8 records – between 194-988m), badger (1 record – 735m), hare (1 record – 817), and otter (7 records >1km).
 - Bats accounted for 80 species records (i.e., 12.8%), including the nearest which are for unidentified species at 302m and 410m. Twenty-three roost records were returned between 736m – 2972m including day roosts for common pipistrelle (736m), Brown long-eared bat (793m), serotine (822m), soprano pipistrelle (840m). Several other bat species are recorded locally including lesser horseshoe bat (969m), and greater horseshoe bat (2640m). In addition, the author has a personal record for a greater horseshoe roost at 810m (submitted and awaiting determination).
 - Reptiles and amphibians accounted for 27 species records (i.e., 4.3%), including common frog (118m), common toad (301m), (508m), great crested newt (6 record – 442m-1425m), and palate newt (582m).
 - Birds accounted for 290 species records (i.e., 46.5%), 48.0% of which were for CAT1 species including the nearest records for house sparrow (131m), starling (194m) and song thrush (194m).
 - Flowering plants accounted for 62 species records (i.e., 10.0%) including two CAT1 records for bluebell (302m) and small-white orchid (1294m). Forty-nine records were returned for CAT4 species (invasive species), the nearest of which were for Japanese knotweed (49 records between 102-1452m).
 - Invertebrates accounted for 123 records (i.e., 20.2%), including 85 CAT1 species (near nearest of which was small heath at 187m) and one CAT4 species (Harlequin ladybird – 433m)

SECTION FOUR: RESULTS OF THE FIELD SURVEY

4.1 Survey Details

- 4.1.1 A phase 1 habitat survey and daytime bat walkover was conducted on 18th February 2025 by the author. Weather conditions during the survey were recorded and these are presented below, and in addition, details of the surveyor's experience are presented in the Appendix.

Date	Timings (BST)		Notes	Weather Conditions		
	Start	End		Variable	Start	End
18.02.2025	10.00	12.00	PEA/DBW	Temp (°C)	7.2	7.2
				Cloud Cover (Oktas)	3	3
				Humidity (%)	60	62
				Precipitation	Nil	Nil
				Beaufort Scale	F2	F2

Table 4.1: Weather Conditions

4.2 Habitat Assessment

- 4.2.1 Habitats present within the development footprint have been mapped (see Appendix F), broadly following the codes and conventions described in the Phase 1 Habitat Survey Handbook (JNCC 2010). Table 4.2 below describes the on-site habitats. A species list and photography are provided in the appendices.

Phase 1 Habitat	Category	Field Notes
Semi-natural broadleaved woodland (A1.1.1)	Woodland & Scrub	A narrow woodland follows the southern boundary of the site. While it is likely that some of the native trees were planted as part of a landscaping plan (C1999) some (i.e., elder) are likely self-seeded.

Dense scrub (A2.1)	Woodland & Scrub	Part of the woodland on the northern boundary of the woodland are currently dominated by a dense scrub composed of small shrubs and bramble. This includes the site of the proposed storage unit.
Improved grassland (B.4)	Grassland and marsh	The grassland located between the woodland and the adjacent playing fields is composed of Yorkshire fog, cock's-foot and crested dogs' tail, likely represents the successional grassland that likely established following the closure of the site's industrial purpose, but may contain species introduced during the landscaping of the site. This is managed 50% as a short sward and 50% as a long sward (meadow).
Standing water - mesotrophic (G1.2)	Open water	A ditch bisects the site from east to west, running in parallel to the woodland. While the western and eastern third of this feature is dry, the central portion retains a narrow section of open water.
Introduced shrub (J1.4)	Miscellaneous	The southern boundary is planted with a mature hedge of Wilson's honeysuckle. Several large cherry laurels are planted in the woodland adjacent to the car park.
Building (J3.6)	Miscellaneous	Two buildings were recorded. These serve as changing rooms and are located directly adjacent to the site of the proposed storage unit. These buildings have a brick construction with a concrete tile roof and likely date to C1999.
Wire Fence (J2.4)	Miscellaneous	A stock netting fence borders the areas of woodland.
Wall (J2.5)	Miscellaneous	A small drystone wall frames either side of the main access to the site.
Dry ditch (J2.6)	Miscellaneous	A ditch bisects the site from east to west, running in parallel to the woodland. The western and eastern third of this feature is dry.
Other [hardstanding] (J5)	Miscellaneous	A large carpark is located at the west of the site. Several paths bisect the site.

Table 4.2: Preliminary Habitat Assessment

Target Note(s)	Description	Field Notes
Target Note 1	Dry-stone wall	This provides a limited potential as refugia for small mammals, reptiles, and amphibians.
Target Note 2	Water-logged ground	This provides a limited potential as a breeding site for amphibians.
Target Note 3	Ditch with open water	This provides a limited potential as a breeding site for amphibians.

Table 4.3: Target notes

Description	Field Notes (PRFs)	Assessment
Two buildings were present on the site.	Sealed soffits and barge boards. PRFs present on the roof – gaps present between the roofing tiles and the ridge.	Roosting - Moderate Foraging - Moderate Commuting - Moderate
Mature trees were present on the site.	PRFs were identified.	Roosting - Negligible Foraging - Moderate Commuting - Moderate

Table 4.4: Assessment of Potential Roosting Features (PRF)

4.3 Evidence of Protected Species

- 4.3.1 No protected species were recorded during the field survey.

4.4 Reptiles

- 4.4.1 While aspects of the on-site habitat exhibit some of the characteristics typical of reptile-associated grassland mosaics, particularly the longer sward grassland and scrub along the margin of the southern woodland, the site is fragmented within the landscape and human disturbance remains a significant factor impacting the suitability of these habitats for reptiles. Lizards and adders are likely absent, but the site offers some potential for slow worms. There are, however, no local records for these species.

4.5 Amphibians

- 4.5.1 A ditch bisects the site, running adjacent to a tarmacked pathway. While the western and eastern thirds of this were dry during the survey, the central section contained standing water. Local records for common frog, common toad, palmate newt and great crested newt have been identified and this ditch and adjacent water-logged ground presents potential as a breeding site. Of the identified species, common toads are perhaps the most well-known for their long migrations. They can travel up to 5 kilometres from their breeding ponds to their summer feeding grounds. While toads may be the most notable for long-distance travel, other amphibians, such as frogs and newts, also undertake significant terrestrial journeys. Distances of several hundred meters to over a kilometre are not uncommon. The surrounding habitat, with its grassland, and scrub mosaic, is suitable for amphibian dispersal, refuge, and foraging.
- 4.5.2 A local population of great crested newts (*Triturus cristatus*) has been recorded within the study area; however, the standing water within the ditch offers suboptimal habitat conditions for this species. Great crested newts typically favour larger, deeper ponds for breeding and foraging, and the ditch is characterized by shallow depth, small size, fluctuating water levels. This size suggests the ditch may only be used occasionally by newts, perhaps for dispersal or temporary refuge, and may limit the population's size and resilience in this location. Compared to the larger, deeper ponds preferred by the species, the ditch is significantly smaller and shallower, with less diverse aquatic vegetation. A habitat suitability index (HSI) survey was conducted during the site visit. HSI assessment involves the measurement of ten different indices which, when combined, have been found to provide a good indication of the general suitability of ponds for GCN. Each of the indices is scored (between 0.01-1) using a series of graphs and figures within the guidance notes (ARG UK, 2010). These scores are then used to calculate an overall Habitat Suitability Score for the former ditch and its associated habitat. Final scores relate to pond suitability for GCN and range from 'poor' to 'excellent'. The HSI score was generated using the ARGUK GCN HSI Calculator and the habitat suitability of the ditch was identified as being 'poor.' While great crested newts are likely absent, the risk of occupation cannot be ruled out. A cautious approach is necessary to mitigate any associated risks, considering that GCN can use terrestrial habitat up to 500m from breeding ponds.

4.6 Bats - Results of a Preliminary Nest and Roost Assessment

- 4.6.1 The location of the proposed storage unit is a small area of scrub and grass directly adjacent to the existing buildings. Site clearance will involve the removal of a small area of bramble, grass and small shrubs. No potential roosting features (PRFs) are present within the area that will be directly impacted by works. There is no risk of the proposed works directly impacting a bat roost.
- 4.6.2 A daytime bat walkover considered the wider impacts on bats within the surrounding area including the adjacent buildings and trees. The adjacent buildings which serve as changing rooms have a brick construction and a concrete tile roof. All the soffits and bargeboards were sealed with no gaps by which may proffer PRFs. Due to the irregular shape of the upper surface of the concrete tiles, a gap was present between each ridge tile and the lower profile of each roof tile. These gaps were present along the whole

ridge. Each gap provide a PRF, and each has the potential to provide access to an interior space of unknown proportions.

- 4.6.3 The site currently experiences a low impact from artificial light due to the mature woodland that encircles the playing fields. The woodland which runs along the southern boundary provides excellent connectivity, particularly to the north and south, and provides high-quality foraging habitat for numerous species.
- 4.6.4 In summary, The structures, which fall outside, but are directly adjacent to the development zone support one or more potential roost sites that could be used due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation significance, with respect to roost type only, such as a maternity and hibernation. In addition, continuous habitat connects the site to the wider landscape, and this could be used by bats for flight paths such as lines of trees and scrub of lines back gardens. Taking this into account the structures was therefore classified as having a 'moderate' suitability for roosting bats according to the Bat Surveys Good Practice Guidelines (Collins 2023). While these structures fall outside the development zone, we will need to consider any potential impacts in regards disturbance and mitigate accordingly.
- 4.6.5 Photographic evidence supporting the DBW is presented in the Appendix. No PRFs were identified that will be directly impacted by the proposed works.

4.7 Suitability for Hibernating Bats

- 4.7.1 No opportunities for hibernation were recorded on-site. No cellars or underground spaces were identified.

4.8 Evidence of Nesting Birds

- 4.8.1 The mature trees which dominate the southern boundary provides suitable nesting conditions for a variety of bird species commonly found in garden and woodland environments.

4.9 Non-native – Invasive species

- 4.9.1 Several introduced shrubs (non-native) species were identified during the field survey including Wilson's honeysuckle and cherry laurel. It is likely that these were introduced to the site as part of the landscaping scheme when the site was redeveloped (C1999). Local biological records returned 49 species records for Japanese knotweed within the search area (102-1452m) but this species was not recorded on-sit.

SECTION FIVE: IMPACT ASSESSMENT & CONCLUSIONS

5.1 Impact Assessment

- 5.1.1 Based on current known plans for the Site, and considering the results from the desktop survey, field survey and other available data, the following will likely apply (impacts are assessed in absence of mitigation):

Impact	Conclusions
Short-Term Impacts (during development)	Potential impact on a dark space (commuting corridors). Low potential for the loss of refugium for small mammals, amphibians and reptiles. Low potential killing/injuring of small mammals, amphibians and reptiles.
Long-Term Impacts(post-development)	Potential impacted on a dark space that (commuting corridors). Low potential for the loss of refugium for small mammals, amphibians and reptiles. Low potential killing/injuring of small mammals, amphibians and reptiles.
Wider Impact	It is not expected that the planned development will have an impact on the wider landscape, or that this impact will be negligible.

Table 5.1: Impact Assessment

5.2 Impacts on Protected Species from the Proposed Works

- 5.2.1 No evidence was recorded for protected or priority species on-site during the survey. Based upon the results from the desktop survey, field survey, the uncompensated re-development impacts have been summarised as follows:

Protected Species	Evaluation	Impact Assessment
Amphibians & Reptiles	Two waterbodies have been identified at 800m (Whitey Park). Several post-industrial water bodies are present >1500m to the east. Opportunities for commuting and foraging around site margins to the south (semi-natural woodland).	Breeding: Low Shelter: Moderate Foraging: Moderate Commuting: Moderate
Nesting Birds	Extensive suitable nesting opportunities recorded within the site boundaries.	Nesting: High
Mammals	Bats: No PRFs identified within the areas that is proposed to be impacted by works. Moderate foraging and commuting potential along the semi-natural woodland at the southern boundary.	Roosting: Nil Foraging: Moderate Commuting: Moderate
	Badger: No evidence recorded on site. Due to the condition of the site, badger is unlikely to use this space for commuting or foraging.	Shelter: Negligible Foraging: Low Commuting: Low
	Hedgehog: No evidence recorded on site. The site offers suitable habitat for shelter, foraging and hibernation. This species is present locally.	Shelter: Moderate Foraging: Moderate Commuting: Moderate
	Otter: No evidence recorded on site. The site is sub-optimal for this species and lacks necessary habitat to support this species.	Shelter: Negligible Foraging: Negligible Commuting: Negligible
Botanicals	Low botanical diversity has been recorded on the Site.	Negligible

Table 5.2: Evaluating the Impact on Species

5.3 Impacts on Designated Areas

- 5.3.1 Based upon the results from the desktop survey and field survey the uncompensated re-development impacts on local sites have been summarised as follows:

Protected Species	Evaluation	Impact Assessment
SSSI	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) or National Nature Reserves (NNRs) etc.	Nil
NRW Priority Area	No part of the Site contains, or is within, any statutory sites of nature conservation interest, including Natural Resources Wales (NRW) Priority Areas.	Nil
Wildlife Site / SINC (adopted)	One SINC was reported in the search area.	Nil
Non-statutory sites	The site is within a designated B-lines area.	Negligible

Table 5.3: Evaluating the Impact on Designated Areas

5.4 Discussion and Conclusions

- 5.4.1 With a focus on the aims of this report as set out in Section 1, the following conclusions have been drawn:

- 5.4.2 While no statutory sites will be impacted by the proposals, the site has good connectivity east and west via a woodland corridor which follows the site's southern boundary. While the site is located at the edge of urban development and is currently impacted by very low levels of artificial lighting, the on-site woodland represents a dark site and likely supports high levels of commuting and foraging for a range of bird, mammals and invertebrate species. The combination of low light levels at the site and the quality of the available habitat at the adjacent woodland (for foraging and commuting bats, especially light-sensitive species such as the greater horseshoe bats, which have been recorded locally) requires mitigation to avoid any negative impact in the short and long term. To protect this valuable habitat, any development plans must minimize potential impacts, including light pollution.
- 5.4.3 Following guidelines set out on Bat Conservation Trusts Good Practice Guidelines (Collins, J. [Ed.] 2023), the development site was categorised as offering no opportunities for roosting bats and no additional survey effort is required in regard to roosting bats at this time. While no evidence of bats was recorded during the PRA and roosting bats are considered absent from the site, care must be taken to avoid impact to the commuting and foraging opportunities proffered along the site boundaries. This includes potential impacts at the adjacent buildings (changing rooms) which were assessed as part of the PEA. Following guidelines set out on Bat Conservation Trusts Good Practice Guidelines (Collins, J. [Ed.] 2023), these structures were categorised as being of moderate risk (with breeding bats not a concern). If plans were to change and these structures were to be directly impacted and or altered, they would first require a dusk survey for bats on two occasions. This survey effort represents the minimum recommended number of visits to give confidence in a negative result for structures. If during survey effort, higher than expected numbers of bats are recorded, additional survey may be required. Under the current plans, no impacts of this nature will arise and therefore any potential risk associated with the disturbance of roosting bats can be mitigated by adopting a bat friendly lighting scheme and timing works to day-light hours. Due to the nature of the proposed structure, disturbance by heavy machinery (noise and vibration) is unlikely.
- 5.4.4 Within the development zone (i.e., the site of the new storage unit) ground vegetation consists of sparse bramble, small shrubs and leaf litter which will be removed during site clearance. This small section of habitat provides limited opportunities for small mammals and amphibians which included foraging and shelter. The ditch (with standing water) and water-logged ground, while lacking records of protected or priority species, offers potential habitat for amphibians, reptiles, and foraging bats, necessitating proportionate mitigation measures.
- 5.4.5 To mitigate risks associated with site clearance, a finger-tip search will be conducted prior to work commencement. Given the local presence of great crested newts and the suitability of the off-site waterbody, a precautionary method statement for GCN will be implemented. If protected species are encountered during work, all activities must cease, and a qualified ecologist must be consulted. Should a great crested newt be identified during the finger-tip search, an EPS license from Natural Resources Wales will be required before work can resume.
- 5.4.6 During any development conducted between March and September (inclusive), efforts must be made to avoid any adverse impacts on the commuting and foraging of bats near the site. External lighting must be restricted during the development period to that which is necessary for safety and security. This must be kept to a minimum and where possible works restricted to daylight hours.
- 5.4.7 As European hedgehog have been recorded locally (~541m), it is recommended that precautions are incorporated during the construction phase. This will be to create provisions for hedgehogs to escape, in the form of creating slopes or the inclusion of ramps at the end of each working day - from all trenches dug into the ground. Additionally, any pipework left on-site that is greater than 150mm in diameter will need to be planked off. Should this information be strictly adhered to, then the development works will not negatively impact this local mammal population.
- 5.4.8 The adjacent vegetation provides multiple and varied opportunities for nesting birds. All nesting birds, their chicks' eggs and active nests are protected under the Wildlife and Countryside Act 1981 (as amended). As

nesting opportunities have been identified within the structures and within mature on-site trees, a cautionary approach will be required to mitigate any associated risks.

- 5.4.9 In-line with statutory obligations and planning policy, mitigation will be required in regards net gain biodiversity. To enhance the Site and increase biodiversity, recommendations will be presented in section 6 (below).

SECTION SIX: RECOMMENDATIONS

6.1 Based on the results of this report, it is recommended that the following conditions be included:

- Following guidelines set out on Bat Conservation Trusts Good Practice Guidelines (Collins, J. [Ed.] 2023), the site has been categorised as being of nil risk of supporting roosting bats and no additional survey work will be required (regarding roosting bats) at this time. However, precautions will be taken to avoid any indirect impacts on the adjacent structures. Between March and September (inclusive), external lighting during the development period to be limited to that which is necessary for safety and security. This must be kept to a minimum and where possible, works restricted to daylight hours. This is required in order to prevent incidental impacts on commuting and foraging bats at the site.
- To mitigate the low risk of GNC presence at the site, a precautionary method statement is required to facilitate site clearance. This is to include a finger-tip search and must be conducted by a suitably experience and licenced ecologist. This is essential to avoid the potential risk of accidental killing/injuring of GNC during works. If any protected species is identified during the finger-tip search, all work must cease, and an EPS license will be required from Natural Resources Wales prior to work recommencing. In all circumstances it is advisable to take a cautionary approach, as GNC could still be present terrestrially at all times of year.
- To prevent any adverse impact upon the potential commuting and foraging habitats for bats (post development), the provision of any permanent lighting on-site will require a sensitive lighting scheme. A lighting plan for the site must be functional and directional only and kept to a minimum servicing the public areas of the proposed development (as required for safety and security). It must be achieved using baffles and screens, if necessary, to ensure no light spill on any retained or planted vegetated (including off-site vegetation - e.g., there is a potential to impact animals using the nearby habitat features). The sensitive lighting scheme must follow advice details in 'Bats and Artificial Lighting in the UK: Technical Guidance Note 08/23' (2023)¹ (Appendix G).
- Implementation of the biodiversity enhancement features for net-gain biodiversity as outlined below.

6.2 In accordance with the provision of Chapter 6 of Planning Policy Wales (Distinctive and Natural Places) and Local Planning Policy, biodiversity enhancement measures should be incorporated into the landscaping scheme of any proposed works to maximise the ecological value of the site.

- **Enhancement for Bats:** In line with the National Planning Policy Framework, the development should aim to enhance the site for bats. Two artificial roosts should be installed as high as possible on the southern gable of the adjacent newbuild property (which is under the same ownership) with the purpose of providing a roosting habitat for crevice dwelling species such as pipistrelle bat (e.g., F2 Schwegler Bat Box² – or similar).
- **Enhancement for Birds:** This area is to be enhanced to provide additional opportunities for breeding birds. Schwegler 2m nest box (32mm)³ (or similar) be attached to mature trees (in the ownership of the site), as high as possible, facing north. The nesting boxes must be of a woodcrete construction to ensure longevity.
- **Enhancements for Birds and Invertebrates:** Enhancement for the local bird and invertebrate populations location, to be provided in the form of tree planting and seed mixes for green areas (see below). Planning Policy Wales (12) emphasises the importance of high-quality replacement planting and securing a net gain in biodiversity. In order to achieve this, it is proposed to include a standard sessile oak at

¹ <https://www.bats.org.uk/news/2023/08/bats-and-artificial-lighting-at-night-ilp-guidance-note-update-released>

² <https://www.wildcare.co.uk/bat-box-45.html>

³ <https://www.wildcare.co.uk/schwegler-2m-nest-box-32mm-red.html>

the green space near the eastern corner of the plot⁴. Oak trees, both pedunculate and sessile, stand as keystone species within the UK's ecosystems, supporting an estimated 2,300 species of wildlife. This remarkable figure encompasses a diverse range of organisms, from invertebrates, lichens, and fungi, to birds and mammals. Crucially, approximately 326 of these species are obligate, meaning their survival is directly dependent on oak trees. This highlights the profound importance of oak trees in maintaining the UK's biodiversity, underscoring their irreplaceable role in providing habitat and sustenance for a vast and interconnected web of life.

- **Invasive plant species:** Vigilance should be used throughout the course of the works to ensure that the works are not causing invasive plant species to spread in the wild.
- **Enhancement of Botanicals:** A species-rich under-canopy seed mix⁵ to be included in the plans consummate with the existing woodland. The exact location of this to be determined on completion of the plans.
- **Implementation and Maintenance:** The owners of The Oval will implement these plans and maintain the enhancement features in perpetuity. Should the oak tree, bird box or bat box fail or become damaged they will be replaced. Likewise, the planting scheme will be implemented and maintained by the owners.

SECTION SEVEN: ADDITIONAL INFORMATION

7.1 Encountering a Protected Species During Works

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

7.2 Expiration of this Report

- 7.2.1 This report is valid for two years from the original survey date (i.e., February 2027). If works do not start within two-years, further survey and assessment will be necessary to qualify the results of this report and its recommendations.

⁴ https://www.ashridgetrees.co.uk/p/garden-trees/oak-quercus/petraea-sessile?utm_campaign=20731047289&utm_medium=cpc&utm_source=google&utm_content=&utm_term=&utm_marketing_tactic=20731047289&utm_creative_format=&utm_source_platform=g_x&gad_source=1&gclid=CjwKCAIA8Lu9BhA8EiwAag16bwjvcGfDm5rQqcflzRTVAgPmF9vIL1Ywpn0ZDmt8OCfXJV0fx8qoBoCX18QAvD_BwE

⁵ https://www.pitchcare.com/products/shade-hedgerow-woodland-wildflower?gad_source=1&gclid=CjwKCAIA3JCvBhA8EiwA4kuiZoaiG-WP6tDAjs71P4QXzKHYYzOnsDjaD0cR0j9fwOW1kwRX0LdLxoCq8QAvD_BwE

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Appendix A: Site Location

Date: February 2025

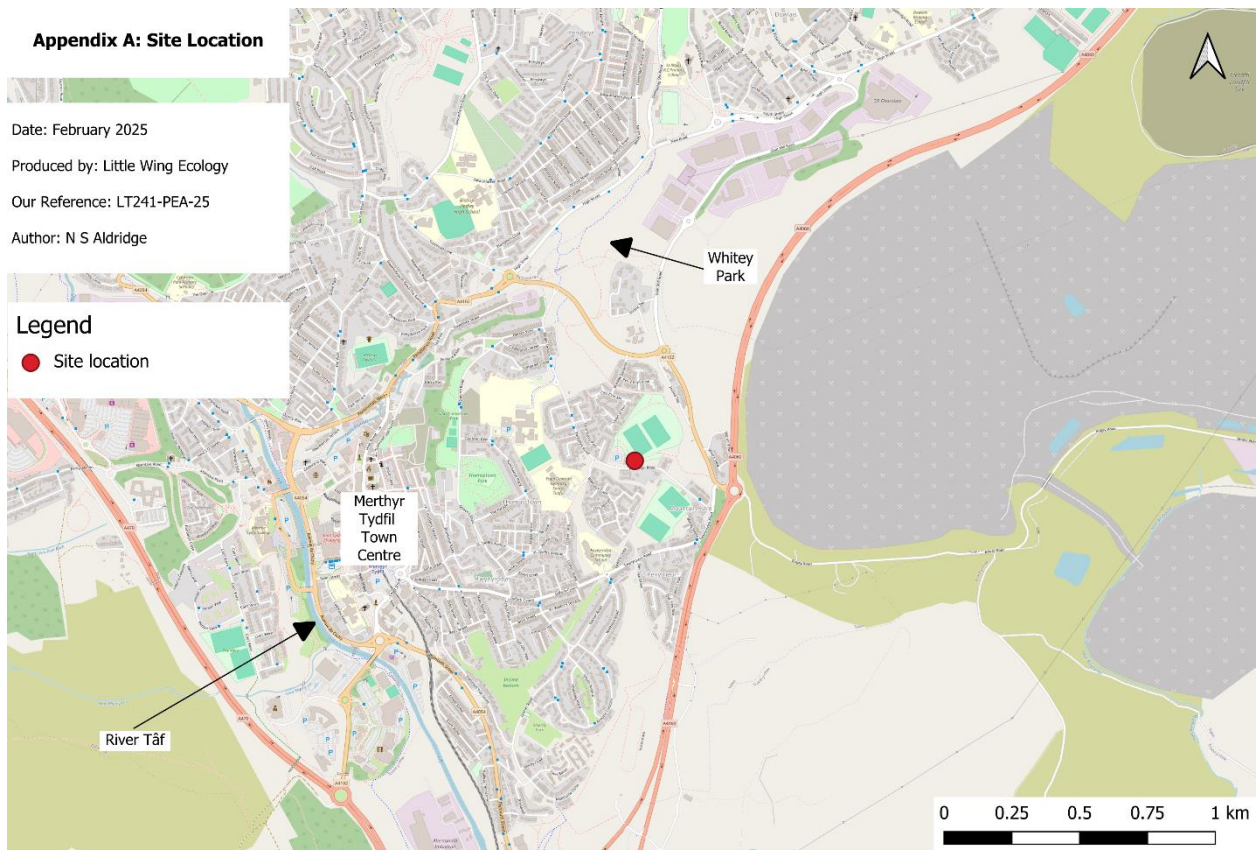
Produced by: Little Wing Ecology

Our Reference: LT241-PEA-25

Author: N S Aldridge

Legend

● Site location



QGIS Development Team, <2025>. QGIS Geographic Information System. Open-Source Geospatial Foundation Project.

Appendix B: A Site Plan

Date: February 2025
Produced by: Little Wing Ecology (CYF)
Our Reference: LT241-PEA-25
Author: N S Aldridge

Legend

- ▮ Survey boundary
- ▮ Proposed location for storage container
- ▮ Existing buildings



QGIS Development Team, <2025>. QGIS Geographic System. Open-Source eospacial Foundation Project.

Appendix C: Site Photographs - Habitat

Semi-natural broadleaved woodland (A1.1.1)	Dense scrub (A2.1) Location of the proposed container
Improved grassland (B.4)	Standing water – mesotrophic (G1.2)
Introduced shrub – J1.4	Wire Fence (J2.4)



Wall (J2.5)



Dry ditch (J2.6)



Building (J3.6)



Other (J5)

Appendix D: Target Notes (Photography)



Target note 1 – Dry-stone wall – Potential shelter for small mammals, reptiles and amphibians.



Target note 2 – Water logged ground – Potential breeding site for amphibians.



Target note 3 – Standing water – Potential breeding site for amphibians.

Appendix E: PRA & Daytime Bat Walkover (Photography)



Northern and eastern elevation.



Western elevation.



Southern elevation adjacent to hedgerow (introduced shrub).



No PRFs – Sealed soffits and bargeboards.



No PRFs – Sealed soffits and bargeboards.



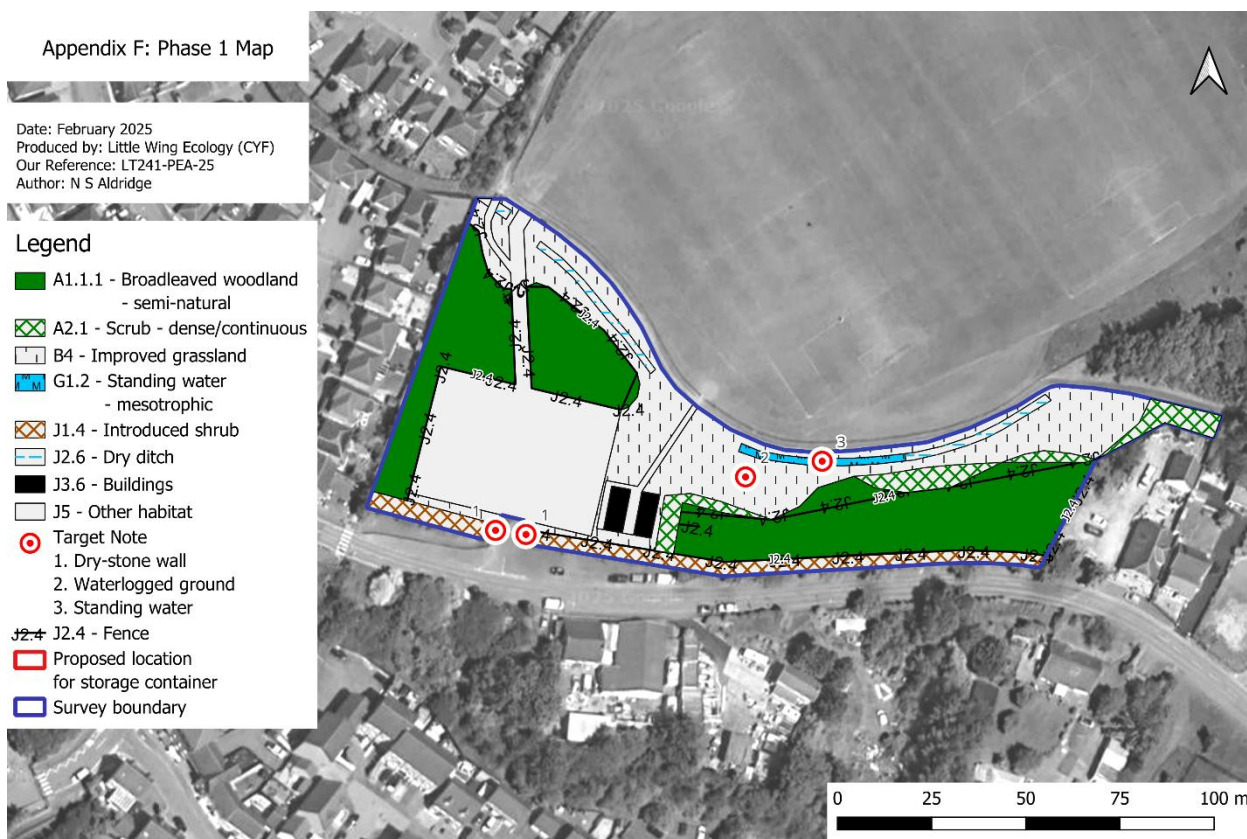
PRFs – gaps present between roofing tiles and ridge.

Appendix F: Phase 1 Map

Date: February 2025
 Produced by: Little Wing Ecology (CYF)
 Our Reference: LT241-PEA-25
 Author: N S Aldridge

Legend

- A1.1.1 - Broadleaved woodland
- semi-natural
- A2.1 - Scrub - dense/continuous
- B4 - Improved grassland
- G1.2 - Standing water
- mesotrophic
- J1.4 - Introduced shrub
- J2.6 - Dry ditch
- J3.6 - Buildings
- J5 - Other habitat
- Target Note
 - 1. Dry-stone wall
 - 2. Waterlogged ground
 - 3. Standing water
- J2.4 - Fence
- Proposed location
for storage container
- Survey boundary



QGIS Development Team, <2025>. QGIS Geographic System. Open-Source eospacial Foundation Project.

Appendix G: Meet the Team

Nic Aldridge (NA) is an ecologist with Little Wing Ecology (CYF). Driven by a passion for wildlife conservation, he has dedicated his career to environmental protection. Prior to establishing Little Wing Ecology in 2021, Mr. Aldridge dedicated 20 years to the education sector, where he successfully developed and implemented community-based conservation initiatives within schools, fostering a deeper understanding of environmental issues among young people. Nic holds a degree in Botany and Zoology, followed by an MSc in Wildlife Management, Conservation and Control from the University of Reading. His field experience is extensive, encompassing a diverse range of ecological surveys including invertebrate and vegetation surveys, Phase 1 habitat surveys, reptile, tree, and hedgerow surveys, and small mammal surveys, alongside the development of comprehensive habitat management plans. He has been actively involved in bat ecology and conservation work since the winter of 2016. He possesses a strong foundation in bat ecology, gained through valuable mentorship from Just Mammals in Brecon, with experience in various survey techniques. This includes hand netting common and soprano pipistrelles from maternity roosts, participating in a long-term research project involving the ringing of Daubenton's bats, and monitoring several important lesser horseshoe bat roosts. He is proficient in conducting bat roost inspections, including those for greater horseshoe bats, brown long-eared bats, whiskered bats, Brandt's bats, Natterer's bats, lesser horseshoe bats, and common/soprano pipistrelles, and possesses experience in accessing bat roosts in trees through canopy access rope climbing techniques. As part of his work with Little Wing Ecology (CYF), Nic prepares EPS licence applications, method statements, and implements these as an Ecological Clerk of Works. He is committed to continuous professional development, having attended courses with the Bat Conservation Trust to enhance his knowledge and skills within the field of bat ecology. Nic established Little Wing Ecology as a not-for-profit organization with the aim of supporting local conservation projects, providing high-quality ecological consultancy services, and nurturing the next generation of ecologists through targeted training and education programs.

Elizabeth Winstanley (LW) is a Nature Recovery Officer with the large Conservation Organisation and a wildlife surveyor with Little Wing Ecology. She has over nine years' experience working in practical conservation. Following a degree in Outdoor Education, Liz volunteered with a Wildlife Trust before taking on her current responsibilities. She has held her current position since 2015. During this time, Liz has undertaken numerous surveys and monitoring projects, including work on butterfly transects, phase 1 habitat surveys, reptile and amphibian surveys, upland monitoring, BTO bird box round, dormouse training and recording, bumblebee conservation – bee walks and many more. Currently Liz is responsible for the management of seven Nature Reserves including four SSSI's. Liz has also attended several training sessions to develop her knowledge, understanding and practical skills in bat monitoring and bat ecology.

Tracey Cotterell (TC) is a Learning Coach with Blaenau Gwent Learning Zone (Coleg Gwent) and a wildlife surveyor with Little Wing Ecology. Tracey has a lifelong love of nature and enjoys spending her spare time volunteering with organisations such as The Welsh Wildlife Trusts, Blaenavon Heritage and Coleg Gwent Equine department. She enjoys being outdoors, whether in a working capacity or for personal interest such as running, riding, or surfing. She has volunteered throughout her life in roles as varied as an NHS First Responder, to working for the Wildlife Trust. During this time, she has gained skills in volunteering with environmental conservation matters, and through being a signaller in a search and rescue team. Tracey enjoys the responsibility of conserving the surrounding environment, learning, and helping to regulate human activities to minimise direct and indirect negative impacts on both flora and fauna. Tracey has also attended several training sessions to develop her knowledge, understanding and practical skills in bat monitoring and bat ecology.

Yvette Amos (YA) is a wildlife surveyor with Little Wing Ecology. She has a lifelong love of nature and enjoys spending her spare time and vacations centred around nature and wildlife focused destinations. Yvette enjoys being outdoors, where she expresses her love of photography along with her interest in the natural world. She is experienced in data collection at a high level, having formerly worked for Cardiff University, School of Social Sciences and Computer Science. Yvette has attended several training sessions to develop her knowledge, understanding and practical skills in bat monitoring and bat ecology and is dedicated to gaining experience in nature conservation, wildlife management and ecology.

Richard Farr is a full-time student studying ecology/conservation science and a wildlife surveyor and has helped write this report. Richard has a life-long love of nature and had previously worked with the Gwent Wildlife Trust, where he gained a wide set of practical skills and experiences which have developed his knowledge and understanding of ecology and conservation at a range of the Trust's Local Nature Reserves. He has also recently completed his second year of studying a bachelor's degree in ecology at UWE (University of the West of England), which has allowed him to develop knowledge and skills in numerous areas including; field/survey techniques, geographical information systems, habitat management/identification, data collection with analysis and RStudio. He has attended multiple training sessions to further develop skills and knowledge in bat monitoring, bat ecology, conducting surveys and associated reports.

Libby Cotterell (LC) is a full-time student and a wildlife surveyor with Little Wing Ecology. She has a lifelong love of nature and the outdoors and enjoys learning new skills and engaging in practical work, in order to have a positive impact on local conservation issues. Libby has attended several training sessions with Little Wing Ecology to develop her knowledge, understanding and practical skills in bat monitoring and bat ecology.

Elise Winstanley (ELW) is a full-time student and a wildlife surveyor with Little Wing Ecology. She runs a college newspaper and is committed to community engagement. Elise is currently studying law, psychology and criminology at A Levels, and has a keen interest in nature and habitat preservation. Libby has attended several training sessions with Little Wing Ecology to develop her knowledge, understanding and practical skills in bat monitoring and bat ecology.

George Harley (GH) is a full-time student and a wildlife surveyor with Little Wing Ecology. He has a love of the outdoors and enjoys learning new skills and engaging in practical work. George has attended several training sessions with Little Wing Ecology to develop his knowledge, understanding and practical skills in bat monitoring and bat ecology.

Reviewer(s)

Sam Haycock (SH) is a founding director of Little Wing Ecology and a commercial assurance executive with a national company. Sam has over 20 years' experience in the education sector and four years' experience managing two rural enterprise companies, of which she was a director for three years. She brings a broad range of interdisciplinary skills to her role at Little Wing Ecology where she has responsibility for editing, reviewing, data management and finances. In 2021, Sam became a founding director of Little Wing Ecology, as a social enterprise, that aims 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 and conservationists.

Appendix H: Species potential defined by integrating national guidelines e.g. Hundt 2012

Confirmed Presence	Species recorded to be present during the survey. Evidence of species is recorded during the survey.
High	Buildings, trees or other structures with features of interest for use by protected species are recorded e.g. nesting habitat, roosting opportunities and/or ponds. Habitat with high quality foraging opportunities e.g. broadleaved woodland, tree-lined watercourses and grazed grassland. The site is connected to the wider landscape by strong linear features that have the potential to be used by commuting species e.g. a river, stream and/or hedgerows. The site is close to known locations of recorded protected species.
Medium	Several potential habitat opportunities in buildings, trees or other structures recorded during the survey. Habitat could be used for foraging e.g. trees, shrubs, grassland and/or water. The site is connected to the wider landscape by linear features that could be used by commuting species e.g. lines of trees, scrubs or linked back gardens.
Low	A small number of less significant features are recorded. Isolated habitat suitable for foraging e.g. a lone tree or patch of scrub. An isolated site which is not connected by significant linear features in the landscape.
Negligible	No suitable habitats observed.

Appendix I: Species List

Common name	Scientific name	Semi-natural broadleaved woodland (A1.1.1)	Dense scrub (A2.1) Location of the proposed	Improved grassland (B.4)	Standing water – mesotrophic (G1.2)	Introduced shrub – J1.4	Wire Fence (J2.4)	Wall (J2.5)	Dry ditch (J2.6)
Bird - Blue tit	<i>Cyanistes caeruleus</i>	x							
Bird - Dunnock	<i>Prunella modularis</i>					x			
Bird - Great tit	<i>Parus major</i>	x							
Bird - House sparrow	<i>Passer domesticus</i>			x					
Bird - Jackdaw	<i>Corvus monedula</i>			x					
Bird - Magpie	<i>Pica pica</i>			x					
Bird - Robin	<i>Erithacus rubecula</i>			x					
Bird - Song thrush	<i>Turdus philomelos</i>			x					
Bird - Wood pigeon	<i>Columba palumbus</i>	x							
Bramble (European blackberry)	<i>Rubus fruticosus</i>	x	x	x			x		
Buttercup (Creeping)	<i>Ranunculus repens</i>		x	x					x
Cherry laurel	<i>Prunus laurocerasus</i>	x				x			
Daisy (Common)	<i>Bellis perennis</i>			x					
Dandelion (common)	<i>Taraxacum officinale</i>			x					
Dock (Broad-leaved)	<i>Rumex obtusifolius</i>	x		x					x
Dog rose	<i>Rosa canina</i>								x
Grasses - Cock's-foot	<i>Dactylis glomerata</i>	x	x	x					x
Grasses - Crested dog's-tail	<i>Cynosurus cristatus</i>			x					x
Grasses - Yorkshire fog	<i>Holcus lanatus</i>			x					
Herb Robert	<i>Geranium robertianum</i>	x							
Ivy (Common)	<i>Hedera helix</i>	x	x			x	x	x	
Knapweed	<i>Centaurea nigra</i>			x					
Lichen - grey crustose	<i>Physcia adscendens</i>							x	
Moss - Feather moss (Bishops mitre)	<i>Calliergonella cuspidata</i>			x					
Plantain (Ribwort)	<i>Plantago lanceolata</i>	x		x					x
Ragwort (Common)	<i>Jacobaea vulgaris</i>								x
Rush (Hard)	<i>Juncus inflexus</i>			x					
Rush (Soft)	<i>Juncus effusus</i>			x					x
Self-heal	<i>Prunella vulgaris</i>								x
Thistle (Bull)	<i>Cirsium vulgare</i>								x
Thistle (Marsh)	<i>Cirsium palustre</i>								x
Tree - Alder (Common/European)	<i>Alnus glutinosa</i>	x	x						
Tree - Aspen	<i>Populus tremula</i>	x	x						
Tree - Oak	<i>Quercus rubra</i>			x					
Tree - Scots pine	<i>Pinus sylvestris</i>	x							
Tree - Sycamore	<i>Acer pseudoplatanus</i>	x							
Tree/shrub - Birch (Downey)	<i>Betula pubescens</i>	x	x						
Tree/shrub - Birch (Silver)	<i>Betula pendula</i>	x	x						
Tree/shrub - Elder	<i>Sambucus nigra</i>					x			
Tree/shrub - Hazel (common)	<i>Corylus avellana</i>	x							

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Tree/shrub - Willow (Goat)	<i>Salix caprea</i>	x	x						
Tree/shrub - Willow spp.,	<i>Salix spp.,</i>	x							
Willowherb (Broad-leaved)	<i>Epilobium montanum</i>	x		x	x	x			x
Willowherb (Great)	<i>Epilobium hirsutum</i>	x							x
Willowherb (Rosebay)	<i>Chamaenerion angustifolium</i>								x
Wilson's Honeysuckle	<i>Lonicera nitida</i>					x			

X = Present at this location

Appendix J: Bat Friendly Lighting Scheme

To prevent any adverse impact upon the potential roosting, commuting and foraging habitats for bats adjacent to the Site (post development), specifically on the nearby mature trees, a lighting plan is required. Lighting for the site must be functional and directional only and kept to a minimum servicing the public areas of the proposed development (as required for safety and security). It must be achieved using baffles and screens, if necessary, to ensure no light spill on any retained or planted vegetation (including off-site vegetation - e.g., there is a potential to impact animals using the nearby habitat features).

- A sensitive lighting scheme is recommended and must be created. The sensitive lighting scheme must follow advice details in 'Bats and Artificial Lighting in the UK: Technical Guidance Note 08/23' (2023) and comprise of:
- Light fixtures, filaments, light spill and artificial light must be directed away from bat roost entrances, both existing and those to be created as part of the mitigation.
- Luminaires are to be LED only, due to their sharp cut-off, lower intensity, good colour rendition and dimming capability. Luminaires must have a warm white spectrum (ideally <2700 Kelvins), reducing the blue light component and increasing the red-light component.
- Luminaires must feature peak wavelengths high the 550nm to avoid the component of light most disturbing to bats.
- Heights of fixtures must be carefully considered to minimise light spill. Only luminaires with an upward light ratio of 0% and with good optical control must be used.
- Luminaires must always be mounted on the horizontal, i.e., no upward tilt.
- Any external security lighting must be set on motion sensors and short (15 second) timers.
- As a last resort, accessories such as baffles, hoods or louvres must also be used, and directed away from any natural features and must not encroach outside the Site boundaries, particularly the surrounding trees, hedgerows, and other vegetation in the landscape.

A copy of 'Bats and Artificial Lighting in the UK: Technical Guidance Note 08/23' (2023) can be found here:

<https://www.bats.org.uk/news/2023/08/bats-and-artificial-lighting-at-night-ilp-guidance-note-update-released>

Appendix K: Policy and Legislation in Wales

Under Regulations 9 (1 & 5) of the Habitat Regulations, local authorities have a duty to have regard for the requirements of the Habitats Directive. This includes maintaining populations of European Protected Species in “favourable conservation status”, and potential for such protected species (for example, bats) should be considered when carrying out a preliminary assessment.

The framework for this protection is provided within several pieces of legislation from the Government of Wales and the UK Government. Furthermore, several pieces of legislation exist that are specifically relevant to individual species. These include:

- Conservation of Habitats and Species Regulations 2010.
- The Conservation of Habitats and Species Regulations (2017) - as amended.
- The Environment (Wales) Act 2016.
- The Wildlife and Countryside Act (1981) - as amended.
- Natural Environment and Rural Communities Act 2006.
- Conservation of Habitats and Species Regulations 2017.

Additional information on the legal scope of these acts can be found in the Appendix and a link to the full documentation can be found in, the references and bibliography section , and the Appendix.

Policy	Description
The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019	Bats are specifically protected by (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.

Bats and the Law

All species of bats are protected throughout the UK. However, there are differences in approach to the protection of bats taken by the different devolved administrations. This means that bat mitigation strategies will need to take due account of the relevant legislation and licensing system that apply in each. In this section, the legal framework underpinning these protections is outlined (CIEEM 2023).

The UK is a contracting party to the 1979 Convention on the Conservation of European Wildlife and Natural Habitats (commonly referred to as the Bern Convention). The Bern Convention has been described as the “European treaty for the conservation of nature.” Its provisions with regards to bats are transposed into law in England and Wales via the Conservation of Habitats and Species Regulations 2019 (the England and Wales Habitats Regulations), and the Wildlife and Countryside Act 1981 (as amended) (the W&CA);

All species of bat, their breeding sites and their resting places in England and Wales are protected through a 'dual' system of protection, under the England and Wales Habitats Regulations and W&CA. Because two regimes give legal protection to bats, the implications of both regimes must be fully understood.

Regulation (Reg.) 43 of the England and Wales Habitats Regulations makes it an offence to:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats (which includes any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate or to affect significantly the local distribution or abundance of the species to which they belong);
- damage or destroy a breeding site or resting place of a bat; or
- possess, control, transport, sell or exchange, or offer for sale or exchange, any live or dead bat or part of a bat or anything derived from a bat or any part of a bat.

Under Section 9 of the W&CA (s.9(4)(b), 9(4)(c) and 9(5) only), it is an offence (in relation to bats) to:

- intentionally or recklessly disturb a bat while it is occupying a structure or place of shelter or protection;
- intentionally or recklessly obstruct access to any structure or place used by a bat for shelter or protection; or
- sell, offer or expose for sale, or have in their possession or transports for the purpose of sale, any live or dead bat or any part of, or anything derived from a bat (or be responsible for adverts suggesting the intention to do this).

The government's statutory conservation advisory organisation, Natural Resources Wales, is responsible for administering European Protected Species (EPS) licences that permit activities that would otherwise lead to an offence.

A licence can be obtained if the following three tests have been met:

- Regulation 53(9)(a) - there is, "no satisfactory alternative," to the derogation, and;
- Regulation 53(9)(b) - the derogation, "will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range," and;
- Regulation 53(2)(e) - the derogation is for the purposes of, "preserving public health or public safety or other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment."

Planning Policy

Where relevant, the ecological assessment takes account of the legislative protection afforded to specific habitats and species where applicable. 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.'

The Environment (Wales) Act 2016, provides a context for the delivery of multi-functional green infrastructure as documented within the Planning Policy Wales (Edition 11) and the Annex to Heads of Planning Letter Dated 11 October 2023: Addressing the Nature Emergency through the Planning System: Updated National Planning Policy for Chapter 6 of Planning Policy Wales.

Its protection and provision can make a significant contribution to the sustainable management of natural resources, and in particular to protecting, maintaining and enhancing biodiversity and the resilience of ecosystems in terms of the diversity within and connections between ecosystems and the extent and condition of these ecosystems, so that they are better able to resist, recover from and adapt to pressures. This means that the development of green infrastructure is an important way for local authorities to deliver their Section 6 duty¹¹³.

GREEN INFRASTRUCTURE DEFINITION AND TERMINOLOGY

Green Infrastructure (GI) has been defined by the Landscape Institute in their publication, Green Infrastructure: An

integrated approach to land use (2013), as *“the network of natural and semi-natural features, green spaces, rivers and lakes that intersperse and connect villages, towns and cities. Individually, these elements are GI assets, and the roles that these assets play are GI functions. When appropriately planned, designed and managed, the assets and functions have the potential to deliver a wide range of benefits – from providing sustainable transport links to mitigating and adapting the effects of climate change.”*

Natural Resource Wales (NRW) defines Green Infrastructure as *“a term that’s sometimes used to describe a wide range of natural and semi-natural features, spaces, rivers and lakes including parks, fields, allotments, hedgerows, roadside verges and gardens, not to mention entire ecosystems such as wetlands, waterways and mountain ranges.”*

Green infrastructure is broadly analogous to ‘Natural Capital’, which can be defined as ‘...the elements of nature that produce value (directly and indirectly) to people, such as the stock of forests, rivers, land, minerals and oceans. It includes the living aspects of nature (such as fish stocks) as well as the non-living aspects (such as minerals and energy resources). Natural capital underpins all other types of capital... and is the foundation on which our economy, society and prosperity is built.’ (The Natural Capital Committee 2017).

The Landscape Institute position statement “Green infrastructure: connected and multifunctional landscapes” provides the following definitions for Green Infrastructure terminology:

- **Green Infrastructure Assets:** GI assets include the natural elements which provide social, environmental or economic benefit. They can be specific sites or broader environmental features within and between rural and urban areas. A useful approach to outlining the different types of GI asset is to classify them according to the spatial scale at which each would typically be found.
- **Connectivity:** Connectivity between different GI assets will help maximise the benefits that they generate. This connectivity can be visual or notional; however physical connections make the most impact. This connectivity can enhance public engagement with the natural environment, improve opportunities for biodiversity migration and assist in encouraging sustainable forms of travel.
- **Green Infrastructure Functions:** GI functions are the roles that assets can play if planned, designed and managed in a way that is sensitive to, and includes provision for, natural features and systems. Each asset can perform different functions, a concept known as multifunctionality.
- **Multifunctionality:** Understanding multifunctionality is central to the GI approach to land use planning. Where land performs a range of functions it affords a far greater range of social, environmental and economic benefits than might otherwise be delivered. Ecosystem services underpinning the multiple functions that GI assets perform is the concept of ecosystem services. Health and wellbeing depends on the range of services provided by 6 ecosystems and their constituent parts: water, soils, nutrients and organisms. These services include:
 - **Support:** necessary for all other ecosystem services, e.g. soil formation and photosynthesis; — provision: food, fibre, fuel;
 - **Regulation:** air quality, climate control, erosion control; and,
 - **Culture:** non-material benefits for people, including aesthetic qualities and recreational experiences.
- **GI approach:** GI approaches to land-use planning promote the widest range of functions which can be performed by the same asset, unlocking the greatest number of benefits. Such an approach enables us to demand more from the land in a sustainable way; by helping to identify when it can provide multiple benefits and to manage the many, often conflicting, pressures for housing, industry, transport, energy, agriculture, nature conservation, recreation and aesthetics. It also highlights where it is important to retain single or limited land use functions.”

NATIONAL PLANNING POLICY

Future Wales - The National Plan 2040 (Welsh Government 2021)

Policy 9 Resilient Ecological Networks and Green Infrastructure of the Future Wales - The National Plan 2040 states the following with regard to green infrastructure:

“To ensure the enhancement of biodiversity, the resilience of ecosystems and the provision of green infrastructure, the Welsh Government will work with key partners to:

- identify areas which should be safeguarded and created as ecological networks for their importance for adaptation to climate change, for habitat protection, restoration or creation, to protect species, or which provide key ecosystems services, to ensure they are not unduly compromised by future development; and*
- identify opportunities where existing and potential green infrastructure could be maximised as part of placemaking, requiring the use of nature-based solutions as a key mechanism for securing sustainable growth, ecological connectivity, social equality and well-being.*

Planning Policy Wales sets out a range of policies to maintain and enhance biodiversity, promote the resilience of ecosystems, including the stepwise approach, and to maximise the provision of green infrastructure. The strategic focus of Future Wales on urban growth requires an increased emphasis on biodiversity enhancement (net benefit) in order to ensure that growth is sustainable.

As the population of Wales becomes increasingly urban, the opportunity to optimise well-being benefits from green infrastructure will be greatest in and around these areas. Innovative use of nature-based solutions and integrating green infrastructure in and around urban areas can help restore natural features and processes into cities and landscapes. Providing locally accessible, high quality green spaces and corridors helps to maintain and enhance the strategic functioning of 8 of our natural resources and ecological networks and address physical and mental well-being. Local green infrastructure assets such as public rights of way, common land, parks, village greens and allotments can all make a cumulative contribution towards wider national scale ecological connectivity. The real-life importance of urban green spaces was demonstrated when people were restricted to taking exercise in immediately local green spaces during the COVID-19 lockdown.”

Planning Policy Wales - Edition 11 (Welsh Government 2021)

Planning Policy Wales - Edition 11 states the following with regard to green infrastructure; “Integrating Green Infrastructure and Development: Green infrastructure plays a fundamental role in shaping places and our sense of well-being, and are intrinsic to the quality of the spaces we live, work and play in. The planning system should protect and enhance green infrastructure assets and networks because of these multi-functional roles. The protection and enhancement of biodiversity must be carefully considered as part of green infrastructure provision alongside the need to meet society’s wider social and economic objectives and the needs of local communities. The multiple benefits that resilient ecosystems and green infrastructure offer to society, including the economic and social contribution they make to local areas, should be taken into account when balancing and improving these needs.

The quality of the built environment should be enhanced by integrating green infrastructure into development through appropriate site selection and use of creative design. With careful planning and design, green infrastructure can embed the benefits of biodiversity and ecosystem services into new development and places, helping to overcome the potential for conflicting objectives, and contributing towards health and well-being outcomes. There are multiple ways of incorporating green infrastructure, dependent on the needs and opportunities a site presents. Landscaping, green roofs, grass verges, sustainable urban drainage and gardens are examples of individual measures that can have wider cumulative benefits, particularly in relation to biodiversity and the resilience of ecosystems as well as in securing the other desired environmental qualities of places.”

Update to Chapter 6 of Planning Policy Wales: Welsh Government recently made changes to Planning Policy Wales Edition 11 to address the nature emergency by publishing a revised Chapter 6 ‘Distinctive and Natural Placemaking and Well-Being’. The policy changes came into immediate affect in October 2023 and impacts on all planning applications. There is a great deal to consider in the revised Chapter 6, however the main policy changes relate to:

- Green Infrastructure
- Net Benefit for Biodiversity and the Step Wise Approach
- Protection for Sites of Special Scientific Interest
- Trees and Woodlands

One key change is the requirement for all planning applications to be submitted with a ‘Green Infrastructure

Statement' (para 6.2.5). A 'Green Infrastructure Statement' is now required with all new applications and should describe how green infrastructure has been incorporated into the proposal.

The statement should be proportionate to the scale and nature of the proposed development, for example on householder and minor developments this would normally be a short description.

The Green Infrastructure statement will be an effective way of demonstrating positive multi-functional outcomes which are appropriate to the site in question and must be used for demonstrating how the 'Step-wise Approach' (Paragraph 6.4.21) has been applied.

Building Better Places, The Planning System Delivering Resilient and Brighter Futures Placemaking and the Covid-19 recovery (Welsh Government 2020)

Within the above document under 'Green infrastructure, health and well-being and ecological resilience' it states the following regarding green infrastructure: "Resilient ecological networks, whilst vital for nature recovery, are also integral to our health and well-being and form part of our response to climate change. The crisis has highlighted the importance of access to green spaces and opportunities to connect with the natural and historic environment. It has highlighted that easy access and proximity to quality greenspace is severely lacking in some areas and to some sections of our communities and actions to reduce such inequalities should be prioritised as part of wider regeneration and improvement activities as a matter of social and environmental justice. At the same time it is notable how, with the advent of fewer unnecessary journeys and increased walking and cycling, biodiversity has the opportunity to thrive.

We must reverse biodiversity decline and enhance the resilience of ecosystems, as well as enable opportunities for social and economic activity based on valuing and enabling access to the natural and historic environment. The planning system has a key responsibility in securing green infrastructure, which plays a fundamental role in shaping places and our sense of well-being and is intrinsic to the quality of spaces in which we live, work and play."

Active Travel (Wales) Act (2015) The Active Travel (Wales) Act (2015)

This Act set out that Welsh ministers must publish annual reports on the amount of active travel journeys made in Wales. There is also a requirement for Local Authorities to identify and plan for active travel routes and increase the provision for walking and cycling, and encourage users to rely less on cars. Local highway authorities are required to give greater consideration to the requirements of walkers and cyclists and provide greater 10 infrastructure provision to them. The act also highlights the need to build connections between key sites such as workplaces, hospitals, schools and shopping areas with active travel routes.

The Well-being of Future Generations Act (2015)

The Well-being of Future Generations Act requires public bodies in Wales to consider the long term impact of their decisions, to work better with people, communities and each other, and to prevent persistent problems such as poverty, health inequalities and climate change.

The Planning Act (Wales) 2015 states that Local Planning Authorities must exercise their function in relation to the determination of planning applications "...as part of carrying out sustainable development in accordance with the Well-being of Future Generations (Wales) Act 2015 (annex 2), for the purpose of ensuring that the development and use of land contribute to improving the economic, social, environmental and cultural well-being of Wales." (PA(W), Sec.2(2)).

Technical Advice Notes (TANs)

Technical Advice Notes should be read in conjunction with Planning Policy Wales (PPW). TANs should be taken into account by the local planning authorities in the preparation of Development Plans. They may be material to decisions on individual planning applications and will be taken into account by inspectors and the Welsh Government in the determination of appeals and called-in planning applications. The following TANs are relevant to green infrastructure:

TAN 5: Nature Conservation and Planning (2009): This Technical Advice Note provides advice about how the land

use planning system should contribute to protecting and enhancing biodiversity and geological conservation. It brings together advice on sources of legislation relevant to various nature conservation topics which may be encountered by local planning authorities. The key principles of planning for nature conservation are set out followed by advice about the preparation and review of development plans, including the relevant statutory requirements.

TAN 12: Design (2016): The revised Technical Advice Notes (TAN) aims to equip all those that are involved in the design of development with advice on how sustainability, through good design, may be facilitated through the planning system. It sets out the core design principles that any development proposal must follow to help create a sustainable environment and exhibit a high level of design quality. These are structured via five the following key objectives of good design:

- Access - Ensuring ease of access for all;
- Character - Sustaining or enhancing local character; promoting legible development; promoting a successful relationship between public and private space; promoting quality, choice and variety; and promoting innovative design;
- Community Safety - Ensuring attractive, safe public spaces and security through natural surveillance;
- Environmental Sustainability - Achieving efficient use and protection of natural resources and enhancing biodiversity; and,
- Movement - Promoting sustainable means of travel.

TAN 16: Sport, Recreation and Open Space (2009): This Technical Advice Note provides advice on the role of the planning system in making provision for sport and recreational facilities and informal open spaces, as well as protecting existing facilities and open spaces in urban and rural areas in Wales. The guidance includes advice on Open Space Strategies and Open Space Assessments and outlines the need to consider green corridors and natural and semi-natural greenspaces when forming development proposals.

Assessment of Existing Green Infrastructure

For all major developments, the existing green infrastructure resource in and around the site must be described and assessed. A thorough contextual analysis of the role of existing green infrastructure in and around the site (e.g. hydrology, habitats, public rights of way and parks) should be provided, appropriate to the scale of the proposed development. This should include a large-scale map identifying the role of existing green infrastructure in the connecting wider landscape and neighbourhood context. Evidence used to describe this resource can include novel approaches such as mapping of ecosystems and ecosystem services, and GIS network and opportunity analysis, as these and other resources become available.

An Ecological Assessment, proportionate to the size of the development is required to identified existing Green Infrastructure features such as;

- Streams/rivers;
- Woodland, hedgerows and scrub;
- Roadside verges and street trees;
- Footpaths; and
- Open mosaic habitat/previously developed land (Brownfield sites), etc.,



CYFYNGIADAU

Mae Little Wing Ecology (CYF) wedi paratoi'r Adroddiad hwn at ddefnydd y Cleient neu ei Asiantau uchod yn unig yn unol â'n telerau busnes, y cyflawnwyd ein gwasanaethau oddi tanynt. Ni roddir unrhyw warant arall, wedi'i mynegi neu ei hawgrymu, ynghylch y cyngor proffesiynol sydd wedi'i gynnwys yn yr Adroddiad hwn nac unrhyw wasanaethau eraill a ddarperir gennym ni. Ni all unrhyw barti arall ddibynnu ar yr Adroddiad hwn heb gytundeb ysgrifenedig penodol ymlaen llaw gan Little Wing Ecology (CYF).

Mae'r asesiadau a wnaed yn rhagdybio y bydd y safle(oedd) a'r cyfleusterau yn parhau i gael eu defnyddio i'w pwrpas presennol heb newid sylweddol. Mae'r casgliadau a'r argymhellion yn yr Adroddiad hwn yn seiliedig ar wybodaeth a ddarparwyd gan eraill ac ar y dybiaeth bod yr holl wybodaeth berthnasol wedi'i darparu gan y partïon hynny y gofynnwyd amdani. Nid yw gwybodaeth a gafwyd gan drydydd partïon wedi'i dilysu'n annibynnol gan Little Wing Ecology (CYF).

Cynhyrchwyd gan:

Rhif cwmni:

Cyfeiriad:

E-bost:

Ffôn:

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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
- Green Infrastructure Statements
- European Protected Species License Applications
- On-site Services to Support Planning Applications and Development
- eDNA Reports
- Reptile Surveys

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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