



Cambrian Ecology Ltd
Anwylfan
Croesor
Penrhyndeudraeth
Gwynedd
LL48 6SS

kate@cambrianecology.com

07760 909574

CCF Yard, Machynlleth
Demolition and Site Re-development
Preliminary Ecological Survey

25th June 2018

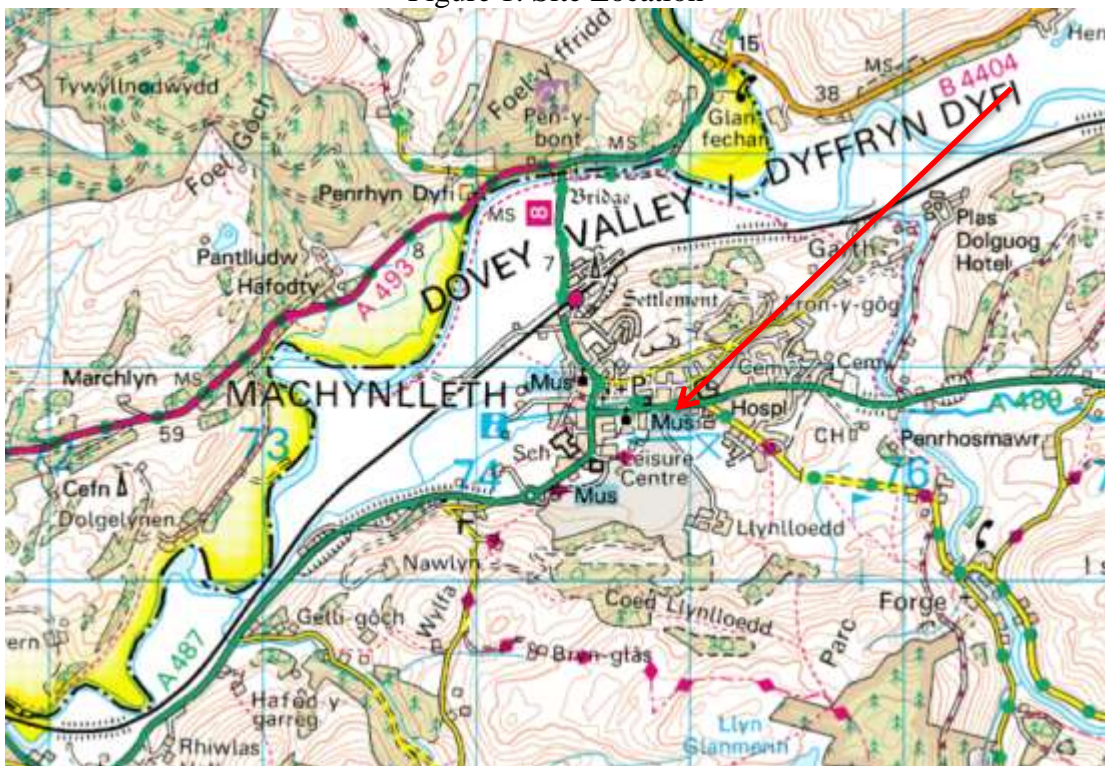


Report by: Kate Williamson CIEEM:
Client: George & Tomos Architects, 12 Heol Penrallt, Machynlleth, Powys
Planning Authority: Powys County Council
Grid Reference: SH 74964 00798

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Figure 1: Site Location



CCF Yard, Machynlleth

Demolition and Site Re-development Preliminary Ecological Survey

25th June 2018

1 Summary

A preliminary ecological survey was carried out on 22nd June 2018 on the old Clynderwen and Ceredigion Agriculture Ltd yard and associated buildings. The site is located on the High Street (A489) within the town of Machynlleth. It is proposed to demolish all the buildings currently present on the site and re-develop the site with a total of 11 flats providing living accommodation. The current buildings consist of a large agricultural shed and a small toilet block. The remainder of the site is hard standing.

An ecological survey report is required by Powys County Council to accompany the necessary planning application.

This building survey involved methodically searching for signs of bats and other protected species within the buildings. The buildings were also assessed on their potential to support bats or any other protected species. Any bio-security issues such as the presence of any non-native invasive plant species were recorded.

No sign of bats or bat occupation was recorded during the survey and the buildings were concluded to have only minimal potential to support roosting bats at any time of year. The main agricultural shed had corrugated metal walls and a corrugated tin roof, sitting on a metal frame, with a single block elevation on the front. The thermal properties within available crevices where the walls met the metal frame were sub-optimal for roosting. The small toilet block was block built walls and a flat roof, with no potential access for bats or birds. For these reasons, it is considered highly unlikely that there will be any impact on bats due to the proposed works and there is no reasonable justification for requesting any further survey work.

There was no evidence of the presence of any other protected species within the buildings. However, the presence of some small areas of limited scrub encroachment along the sides of the main shed had the potential to support nesting birds that would be impacted by the proposed works. There were no bio-security issues associated with the proposals.

A few 'reasonable avoidance measures' (RAMs) have been recommended to avoid any inadvertent breach of legislation with regard to the disturbance of nesting birds.

As long as these RAMs are adopted, there is not considered to be any impact on protected species due to the proposed demolition and re-development.

Some Biodiversity enhancements have been recommended, e.g. planting of new garden with native species of benefit to wildlife. This complies with Section 6 of the Environment Wales Act (2016) which requires Planning Authorities to seek Biodiversity gain as a routine part of planning consents being issued.

2 Introduction

Cambrian Ecology Ltd was commissioned by George & Tomos Architects, to conduct a preliminary ecological survey on the old CCF Yard and associated buildings within the town of Machynlleth, on behalf of their client.

It is proposed to demolish all buildings currently present and re-develop the site by providing living accommodation within 11 flats. An ecological survey report is required by Powys County Council to accompany the necessary planning application.

The site is located at Grid Reference SH 74964 00798.

3 Methodology

3.1 Buildings survey

The buildings survey, was carried out on 22nd June 2018 by experienced ecologist Kate Williamson. Kate is a licensed bat worker (License number 74340:OTH:CSAB:2016) and a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). She has been working as an ecological consultant for the past 8 years.

Survey Objectives:

- Identify any signs of the presence of bats or any other protected species within the buildings
- Assess the potential of the buildings to support bats or any other protected species
- Identify any important habitats on the site and assess the impacts of the proposed works
- Make recommendations for mitigation/compensation or any further survey work required in order to comply with current legislation
- Identify any bio-security issues that may arise as a result of the proposed development

All crevices and other likely roosting areas were methodically searched for signs of bat occupation, such as droppings, feeding remains and marks on timbers from oils in the animal's fur. This included both the interior and exterior of the buildings, which were also assessed on their potential to support roosting bats. A thorough search was also made for any signs of nesting birds and the buildings assessed on their potential to support nesting birds.

3.2 Vegetation survey

A site walkover was conducted to identify all habitats present on the site and assess the impacts of their loss due to the re-development of the site. In the context of this report, important or notable habitats are considered to be those which are of a sustainable size and which meet any of the following criteria:

- Habitats which have a high intrinsic ecological value, i.e. they support a diverse range of vascular plant and/or faunal species;
- Mature or semi-natural habitats in built-up areas;
- Any UK BAP priority habitats;
- Local BAP habitats considered having a significant extent and/or ecological interest.
- Invasive Non-Native Species, (INNS)

Where possible, habitats were cross-referenced to any relevant UK priority habitats or Powys County Council's Biodiversity Action Plan.

4. Site Description

The site is a former agricultural suppliers yard, with a large metal shed and smaller block building present.



Fig.1: Plan of former agricultural suppliers yard and shed

4.1 Buildings

The main building on the site is a large, corrugated metal, agricultural shed. The roof and walls are sheets of corrugated metal and the building is constructed on a steel frame. The front elevation has very large double doors and a block construction. This elevation is pebble-dashed and there are no crevices in the block work. The metal barge boarding is tight against the wall, with no gap. There are transparent panels within the roof of the shed, giving very high light levels within the interior. There are gaps within the corrugations of the walls, where they are attached to the steel frame. There is potential bat access over the top of the walls.

There is a small block building along the Eastern edge of the yard, formally used as the toilets. The block walls also have fascias attached tightly and there is a flat roof. There are no visible crevices suitable for roosting bats and no apparent access to the interior.

There are block walls surrounding the site, with no crevices or gaps.

4.2 Habitats

Buildings and hard standing

The predominant habitat on the site is hard standing and buildings. Some ruderal species have begun to colonise the edges of this habitat, including; butterfly bush (*Buddleia davidii*), rosebay willowherb (*Epilobium angustifolium*), nettle (*Urtica dioica*) and dandelion (*Teraxacum officinale*).

Scrub

Apart from the hard standing, there are small areas along both sides of the large shed, which have developed some early succession scrub. Species present here are ash (*Fraxinus excelsior*) and sycamore (*Acer pseudoplatanus*) saplings, bramble (*Rubus fruticosus*) and nettles.

4.3 Surrounding habitat

The CCF yard is situated within the town centre of Machynlleth and surrounded by urban development. However, there are some heavily managed, amenity areas immediately to the south of the site, with grazed fields further away. There are high levels of lighting affecting the front half of the site from street lighting and security lighting in both adjacent lots.

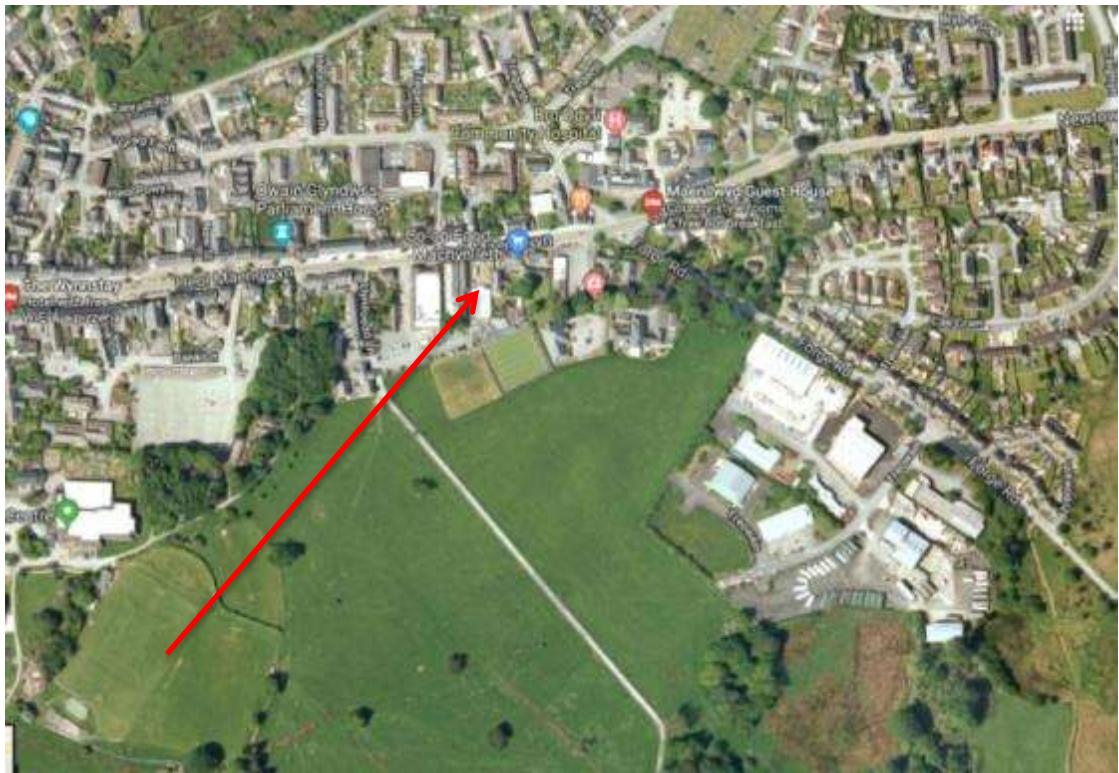


Fig.2: Location of CCF yard within Machynlleth and surrounding habitats

5 Results

5.1 Bats

No sign of current or past use by bats was recorded on either the interior or exterior of either of the buildings. There is no apparent access to the toilet block building and minimal roosting potential within features on the metal shed. The only roosting potential present is within corrugations, where the walls are attached to the metal

frame. These areas would be subject to extreme variations in temperature and are not considered suitable for roosting bats.

5.2 Other Protected Species

There was no sign of any nesting birds associated with the buildings on the site. The small areas of scrub have some limited potential to support nesting birds during the recognised breeding season and some precautionary measures should be taken during the site clearance to avoid any disturbance.

6 Survey Limitations.

Bats are highly mobile animals and some species move roosts on a regular basis. It is often possible to find signs of bat occupation outside of the time that they are resident, in the form of droppings and feeding remains, however, these dissipate over a period ranging from a few days to several months. Many species are crevice-dwelling and signs may be impossible to find. An accurate assessment of the potential of a building to support bats is therefore important to establish the need for further survey work. In this case, it is considered that the roosting potential available is sub-optimal for bats and it is unlikely that bats will be present at any time of the year.

7 Ecological Impacts

7.1 Bats

The only roosting potential recorded on the building is within sub-optimal areas on the metal shed and this would be limited to individual bats. There is no apparent access to the interior of the toilet block building and no potential for maternity roosting within the site. Given the very poor quality of the available roosting areas for bats, it is considered highly unlikely that the site will be utilised at any time of the year.

For these reasons, it is considered highly unlikely that there will be any impact on bats of any species due to the proposed works.

7.2 Vegetation

The only habitats present on the site are hard standing and small areas of scrub. These habitats contain only small numbers of common and widespread species of no conservation concern. The scrub areas however, are of some potential importance to protected species which must be taken into consideration with regards to the timing of any vegetation removal works.

7.3 Other Ecological Issues

There was no sign of nesting birds associated with either of the buildings surveyed and no impacts due to the presence of invasive non-native plants as a result of the proposed works. There is some potential for nesting birds to be present within small scrub areas during the recognised nesting season, 1st May to 30th September. Inappropriate timing of vegetation clearance could lead to the disturbance of birds resulting in the failure of the brood, a criminal offence under the Wildlife and Countryside Act.

8 Conclusions

8.1 Bats

It is concluded that there is only very minimal potential for individual crevice-dwelling bats to be present within the scope of the proposed works and this potential is further minimised by the poor quality of the available roosting and foraging habitat for bats. There is no apparent bat access to the interior of the small block-built building.

8.2 Vegetation

The habitats present on the site are of no conservation concern in their own right, but the small areas of scrub have some potential to support nesting birds.

8.3 Other Ecological Issues

There is the potential for nesting birds to be present on the site and disturbed by the proposed works. The adoption of the RAMs outlined below will ensure that there is no inadvertent breach of legislation due to the disturbance on nesting birds during the nesting period.

9 Mitigation & Recommendations

9.1 Bats

Due to the extremely low potential for any bats to be present or impacted by the proposed works, it is not considered reasonable to recommend any further survey work on this site.

No specific mitigation measures with regards to bats are required. If however bats are found to be present at any stage during the proposed works, Natural Resources Wales, (NRW) must be contacted as there may then be a requirement for a licence to proceed with the works. It is considered highly unlikely that this will occur.

9.2 Vegetation

There is no mitigation recommended due to the loss of this minimal amount of a common habitat (scrub), however, the RAMs below should be adopted to ensure no impact on protected species associated with the habitat.

9.3 Other Protected Species

The removal of the scrub vegetation and the demolition of the adjacent buildings should be undertaken outside of the recognised nesting bird season, considered by RSPB to be 1st May to 30th September. If however this is not possible, a thorough search for active nests should be made by a suitably qualified ecologist immediately prior to the works commencing. If any nests are recorded, the works will need to be postponed until such time as any chicks have fledged.

9.4 Biodiversity Gain

The following recommendations could be adopted within the development plans to deliver a level of Biodiversity gain on the site post-construction.

- The incorporation of bat bricks or tubes within the fabric of any new dwellings. There are a range of products available, including the Schwegler 2FR bat tube and Schwegler brick box 27, which would be suitable. The inclusion of these potential roost sites increases the roost availability for a range of bat species. The tubes can be built into the fabric of the new development on the south elevation of flats 5, 8, 11 and potentially on the western and eastern elevation of the rear build too. These elevations are subject to the least amount of light pollution from surrounding buildings and street lighting. The tubes must be located as high as possible from the ground to reduce the potential for disturbance and should be shown clearly on the architect's plans.
- Any planting scheme for the site post-construction should contain native species and/or species of value to wildlife. Lists of appropriate species are available from many sources, including the North Wales Wildlife Trust.
- The planting of any native tree species or fruit-bearing species will be of benefit to birds and invertebrates. Species to consider include wild cherry; (*Prunus avium*), bird cherry; (*Prunus padus*), rowan; (*Sorbus aucuparia*) and hawthorn; (*Crataegus monogyna*).

10 Legal Implications

10.1 Bats

Bats are protected under UK law by the Wildlife and Countryside Act 1981 (as amended) and also under European law by the Conservation of Habitats and Species Regulations 2017. Under these laws it is an offence to deliberately kill or injure a bat, to disturb a bat or to damage, destroy or block access to a roost. Bat roosts are protected under these laws whether the animals are present at the time of survey or not. NRW are empowered to issue licences to carry out work to bat roosts for reasons of overriding public interest.

10.2 Nesting birds

Under the Wildlife and Countryside Act 1981, all nesting birds and their nests are protected. Once a bird places a single piece of material then it constitutes a nest. It is then an offence to cause damage to the bird, nest, eggs or chicks and immediate habitat which is likely to result in damage by causing the bird to desert its nest. This covers all bird species, with a small number of exceptions (pest species which can be controlled by special license).

In 2000, the Countryside and Rights of Way Act (CROW Act) was made law, strengthening the legal protection for many species and introducing a 'reckless disturbance' offence.

11 Appendices

11.1 Site Photographic Record



Area of hard standing at the north of the site, in front of the large shed



Area of hard standing to the rear of the shed, south of the site



Front elevation of the shed



Rear elevation of the shed



Interior of the shed



Small areas of scrub between sides of the shed and the site boundary wall



Edge of the small toilet block and shed wall



Schwegler 2FR bat tube

11.2 Review Table

Name	Task	Date
Kate Williamson	Author	25.06.2018
Chris Hall	Review	25.06.2018