HARVEY HUGHES

INDEPENDENT RURAL CONSULTANTS

R Gaskin

Pen Y Parc Farm

Black Park

Chirk

Wrexham

LL14 5AX

Ecological Assessment

Green Infrastructure Statement

Prepared: February 2025

Prepared by: Alexandra Lewis BSc (Hons) MSc PhD
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Harvey Hughes Ltd
43 Castle Street
Northwich
Cheshire
CW8 1EY
Tel: 0161 927 7562

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1.0 Introduction and Site Location

This ecological assessment was commissioned by Richard Gaskin of Pen-Y-Parc Farm, Halton, Wrexham to provide supporting information for the planning application for the roofing over of two small areas of existing farmyard – a cattle feeding area and an area used to collect and pump slurry.

The proposed site is in Halton, Wrexham, Wales at Pen-Y-Parc Farm (see figure 1 for site context). The proposals for 2 areas of roofing (photos 2 and 4) will reduce the volume of excess clean water / rainwater entering the dirty yard areas and ultimately reduce the overall volume of slurry produced on farm. This in turn will have operational, financial and environmental benefits.

The site comprises part of the existing farmyard nestled between agricultural buildings and cattle feed/movement areas, as well as an area used for collection and pumping of slurry (see figure 2). T G Gaskin & Son farm around 82ha at Pen-Y-Parc Farm of predominantly grass, with some maize and wheat used as forage to feed the 125 head of dairy cattle /260 head of stock on farm (including herd replacements / calves).

Beyond the farmyard, agricultural buildings and surrounding grassland pasture of Pen-Y-Parc the wider landscape consists of agriculture (predominately pastoral fields and scattered farms) dissected by hedgerows and roads along with areas of woodland. The small township of Halton in Chirk Parish lies immediately to the east and the busy A483 road around 125m at the top of a steep bank to the west. The River Dee flanked by woodland on either side meanders to the north and east of the site, around 700m at its closest point. A large McDonalds restaurant and drive-through complex off a series of roundabouts, along with a weekly popular car boot sale is located around 450m to the south of the site.

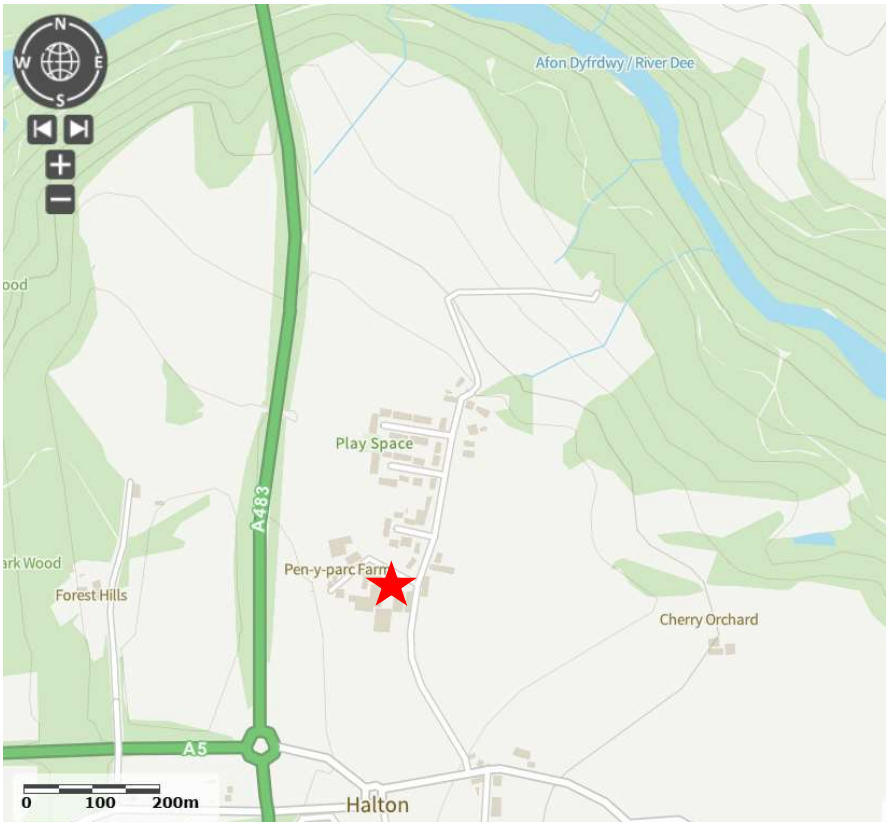


Figure 1. Site context

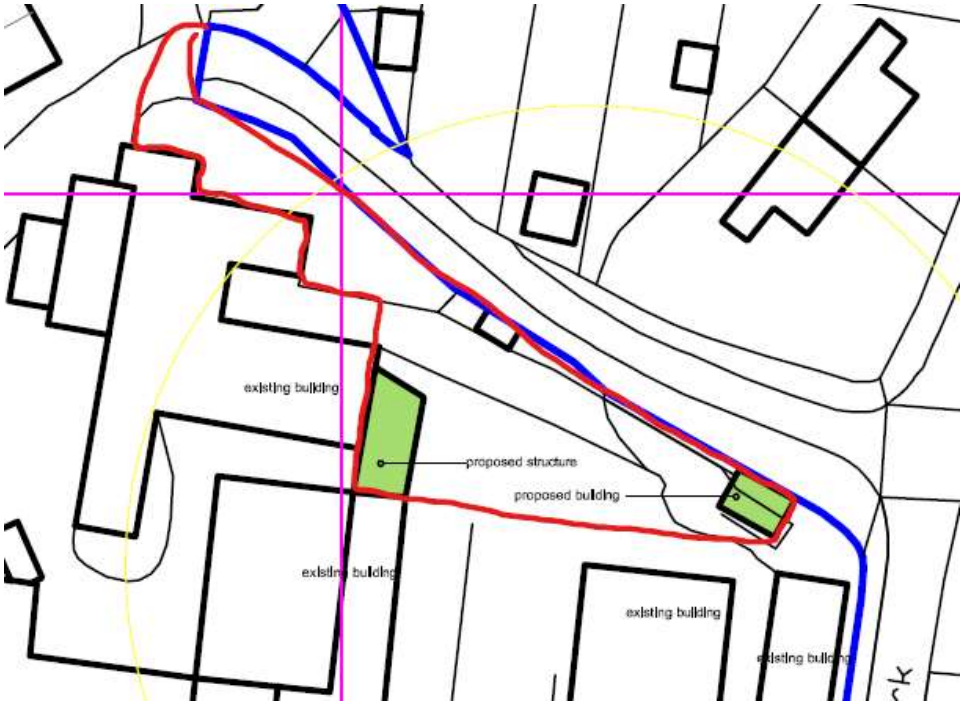


Figure 2. Location plan of proposals within red-edge planning boundary.

A walkover of the site (and area immediately surrounding) was performed on Tuesday 18th June 2024 by Alex Lewis who has over 11 years' experience in preliminary ecological survey and holds a Natural England GCN survey licence (Licence No: 2021-52257-CLS-CLS).

This Preliminary Ecological Assessment provides a baseline assessment of existing ecological value of the site to support protected species, identification of species of ecological interest, highlight proximity and potential impact to any designated sites (SSSI etc) as well as recommendations for appropriate further action if required (surveys, appropriate avoidance measures, mitigation and habitat enhancement) to inform planning and identify opportunities for ecological enhancement.

A brief enhancement plan for Net Biodiversity Benefit (NBB) and a Green Infrastructure Statement is also included within this report.

2.0 Legislation

The following list of relevant UK and European legislation and policies are taken into account as pat of this habitat appraisal (full details not listed below).

- EU Habitats Directive

- EU Birds Directive

- Conservation of Habitats and Species Regulations – transposes the Habitat Directive in UK law.

- The Wildlife and Countryside Act (1981)

  It is an offence to intentionally capture, kill, injure or remove any species listed within the regulations and prohibits interference with places used for shelter or protection and deliberate disturbance of species using such places that may significantly affect the survival/local distribution of protected species locally. Further to this all wild birds and their nests and eggs are protected under this

Act and for bird species listed under Schedule 1 of the Act it is also an offence to disturb the birds whilst nest building or disturb the dependent young of these species.

- Environment Act (2021) – Part 6 – Nature and Biodiversity

- Countryside and Rights of Way Act (CRoW) 2000

- Hedgerows Regulations 1997

  The 1997 regulations make it illegal to remove most hedges without permission from the local planning authority– including if hedgerows run on or alongside agricultural land and if it is longer than 20m. Hedges are a significant wildlife habitat and provide varying degrees of refuge, shelter and connectivity for wildlife including small mammals and birds.

- The Protection of Badgers Act (1992)

- RAMSAR Convention

- Environment Act (Wales) (2016)

  Places the onus on public authorities to 'seek and maintain and enhance biodiversity', 'promote the resilience of ecosystems' and requires there to be a revised list of species and habitats in Wales which are of key significance (the S7 list). Planning proposals should include details of biodiversity enhancement measures with the underlying principle that any enhancements should lead to a 'net benefit' for biodiversity within the development site.

- Planning Policy Wales

  Aswell as the above legislation there are national and local policies in place. Green Infrastructure Assessments and step-wise approach to ensure maintenance or enhancement of biodiversity are amongst the recent changes to the guidance for developers and planners. The most recent of these changes was in October 2023 in response to the duty to maintain and enhance the biodiversity (NBB) and ecosystem resilience in Wales and includes taking a

proactive approach to green infrastructure and expects all new planning applications to include a Green Infrastructure Statement.

3.0 Methodology

A combination of desktop study and site visit was used to inspect the site (OS grid reference SJ 30117 40081) and surrounding area. The proposed development location is shown in figure 1 and outlined in red in figure 2. The area surveyed included everything within this area and the area immediately surrounding it. No investigations were done beyond the ownership boundary points at this time.

The areas that have been considered for this project are:

- Within the application site boundary (a frequently used area of existing concreted farmyard)

- Within 2km for designated sites (including SSSI etc).

A desktop study was made of the survey area using Google Earth Pro, DataMapWales and Magic Map Application (www.magic.gov.uk) to identify any key habitats or local protected sites.

The proposed study area was then walked over and inspected by Alexandra Lewis who has over 11 years' experience in field surveys and holds a Natural England GCN survey licence (Licence No: 201620337-CLS-CLS) on the 18th of June 2024. The weather conditions were clear and warm (17ºC).

During the site visit a search was undertaken for key habitats and signs of the following relevant protected species:

- Bats
- Breeding birds

3.1 Limitations

There were no limitations or constraints experienced during the survey – with the visit being undertaken at the optimal time of year.

4.0 Results

4.1 Protected Sites

Two SSSI locations were identified within 1km of the site. Afon Dyfrdwy (River Dee) SSSI meanders to the north and the east of the site – around 700m to the east at its closest point. Nant-y-Belan and Prynela Woods SSSI lies immediately to the east of the River Dee – at around 710m from the site. Due to the distance and small scale/type of development proposed, as well as the small settlement of Halton between the site and SSSI locations – it is considered that there will be no significant adverse effects on these locations.

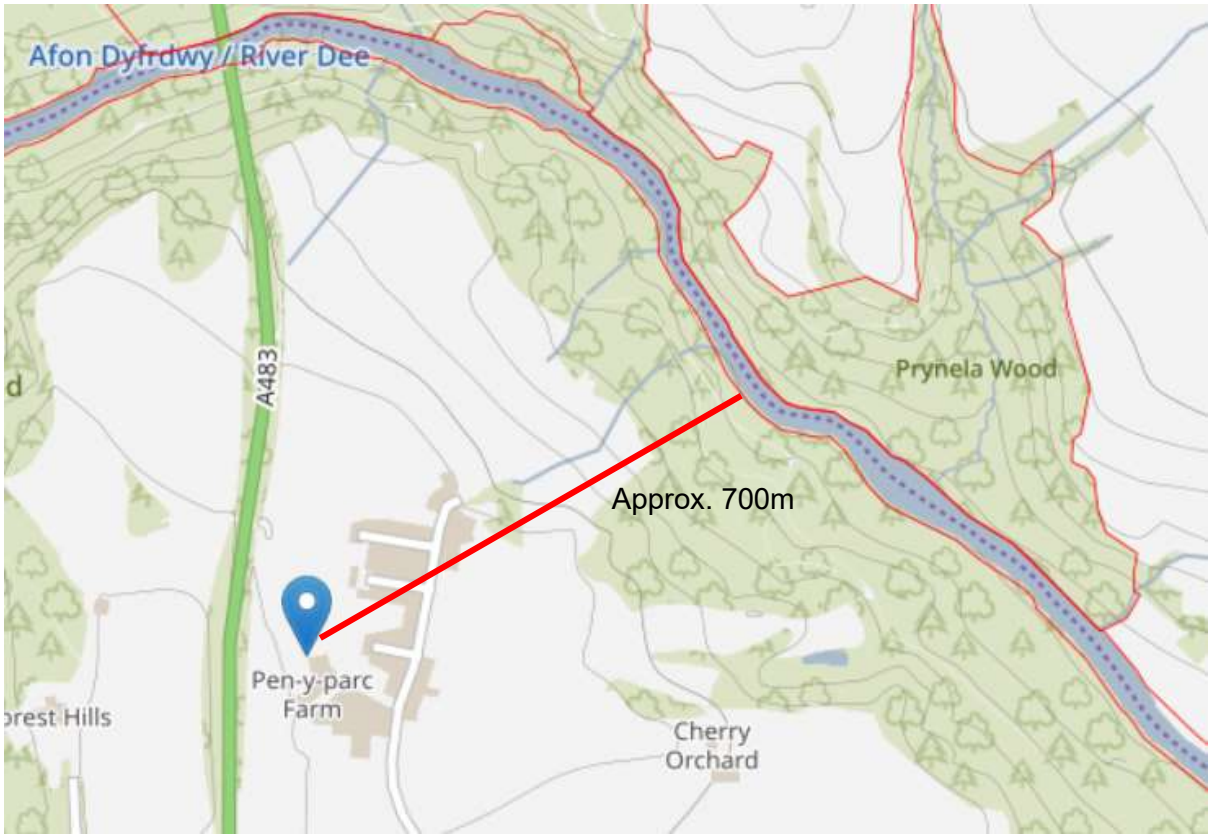


Figure 3. Proximity of the site at Pen-Y-Parc Farm to the SSSI locations

4.2 Habitat and species present on site

The proposed site (photos 1 -4) is an area of existing concreted farmyard set between existing agricultural buildings used to house and feed stock. The areas of farmyard are heavily trafficked daily (livestock and farm machinery).



Photo 1 – Existing farmyard area used to feed and move livestock adjacent housing,



Photo 2 – proposed roof area adjacent to existing buildings.



Photo 3 – Existing farmyard area for storage and pumping of slurry taken on the proposed site facing east.



Photo 4. Proposed roof area over slurry collection area.

4.3.1 Plants

There was no vegetation noted within the proposed development site. A large oak tree is present immediately adjacent the northern boundary of the site next to the slurry collection area with some overhanging branches (see photo 2 above).

4.3.2 Bats

The site was assessed for the suitability of habitats to support roosting bats. The proposed site consists entirely of existing farmyard, thus providing no suitable habitat for roosting bats. However, the traditional brick buildings that surround the farmyard may provide suitable shelter for bat species. A large mature oak tree just outside of the site boundary, to the north of the slurry collection area may provide suitable habitat for roosting bats also – in cracks and crevices – although the tree will remain unaffected. It is likely that bats use the farmyard site for foraging.

4.3.3 Nesting birds

The site was assessed for the suitability to support nesting birds. Similarly to bats – as the red-edge boundary consists of only concreted farmyard – there is no suitable opportunities for nesting birds on the proposed site itself. However, the mature oak tree just beyond the site's northern boundary offers nesting opportunities for a range of bird species.

4.3.4 Invasive species

No signs of invasive species were noted during the walkover survey.

In summary the site itself does not offer any suitable habitat to support protected species, however surrounding buildings and the mature oak offer some suitable roosting / nesting opportunities for bats and birds.

5.0 Discussion

5.1 Ecological Impact

5.1.1 Habitats

The proposed work does not include the destruction of any existing habitats, nor does it adversely affect any adjacent habitats. The mature oak just beyond the northern boundary has an overhanging branch that sits at its' lowest at 4.8m above the ground. The proposed sloped roofing area here is at a height of between 12ft (3.65m at the front) and 14ft (4.26m at the back), well below the lowest branches.

5.1.2 Bats

Although there were no opportunities for bats to roost within the red-edge boundary of the proposed development – the adjacent traditional brick buildings offer potential roosting opportunities for bats. The proposed roofing however will **not** inhibit this potential as the sides will be open and access will still be available to the brick building. It is also likely that bats use the site to forage and as such it is a recommendation that consideration is given to bat sensitive lighting during the construction phase and outcome of the development (guidance taken from the Bat Conservation Trust document 'Bats and Artificial Lighting in the UK'). Exterior lighting to be fit with hoods and be fixed less than 3m above the ground to direct light immediately down and will not be directed at any hedges or gables or eaves. This is to maintain dark for nocturnal animals including bats.

5.1.3 Nesting birds

The site itself offers no suitable habitat for nesting birds. The mature oak tree, as discussed above offers nesting potential but will go unaffected by proposals.

In summary - it is deemed that proposals will have limited detrimental affect on the site which otherwise has little to no ecological value. There will be no net loss of habitat

and therefore no loss of biodiversity given the proposed development. However, there is potential to enhance post-development biodiversity on the site (see section 6).

6.0 Ecological Enhancement / Net Biodiversity Benefit

In accordance with the Planning Policy (Wales) all developments are required to demonstrate that provision has been made for net biodiversity benefit (NBB). This means that the site should have a better outcome than if it had been left undeveloped to ensure that there is no net loss to biodiversity. This plan aims to propose wildlife features which will be incorporated into the proposed development to result in overall increased site biodiversity and provide valuable habitat within the development.

Although any existing nesting opportunities for birds and roosting opportunities for bats will be retained (mature tree / traditional brick buildings) the NBB measures as part of the development will focus on the provision of additional opportunities for these species.

6.1 Bat and Bird Boxes

The new roofing areas comprise of fibre cement roofing sheets supported on vertical metal legs. In the covered yard area this roof area will adjoin two existing buildings, and in the slurry mixing area will be a standalone structure (see separate document proposed plans and elevations). The new structures will not have any sides, or Yorkshire boarding that would be suitable to affix bat or bird boxes. Therefore, it is recommended that additional opportunities be located on suitable existing surfaces on farm buildings, but away from livestock feeding areas. The following locations are suggested (figure 6) but could be in similar locations along existing buildings on the farmyard.

Farm buildings can provide valuable nesting habitat for birds/bats and improve nesting and habitat opportunities to contribute to improvements for a variety of wildlife using

the landscape. 2 three-hole house sparrow terrace nesting box mad from long-lasting materials (such as the 1SP Schwegler Sparrow Terrace shown in figure 4) will be fit to the external north side, out of the midday sun, of an existing building at a height of around 4m. Such terraces may also occasionally attract tits and other small bird species.



Figure 4. 3-hole house sparrow terrace bird box made from long-lasting materials. The one in this example can be fit internally within a brick wall or affixed to the external wall.

Two long-life, weatherproof bat boxes (such as the recycled plastic eco bat box for either crevice or crack roosting bats shown in figure 5) will be installed in the farmyard area – one proposed on the mature oak tree facing south and one proposed on the brick building facing south-west (as shown on figure 6). Bat boxes should be positioned at a height of 4-6m, the higher the better, in a location ideally receiving some direct sunlight (south/south-westerly facing) and away from direct bright artificial lights.



Figure 5. Eco Bat box by the nestbox company

6.2 Loss

It is estimated that the proposed development will result in the no loss of existing habitat or biodiversity.

6.3 NBB

The proposed development will include:

- Installation of 2 terrace nest boxes for house sparrow
- Installation of 2 bat boxes

In the unlikely event that a protected species is found during works – work must cease immediately until further notice, an ecologist be contacted immediately and the council's Ecologist should be contacted to seek advice to ensure that works proceed legally.

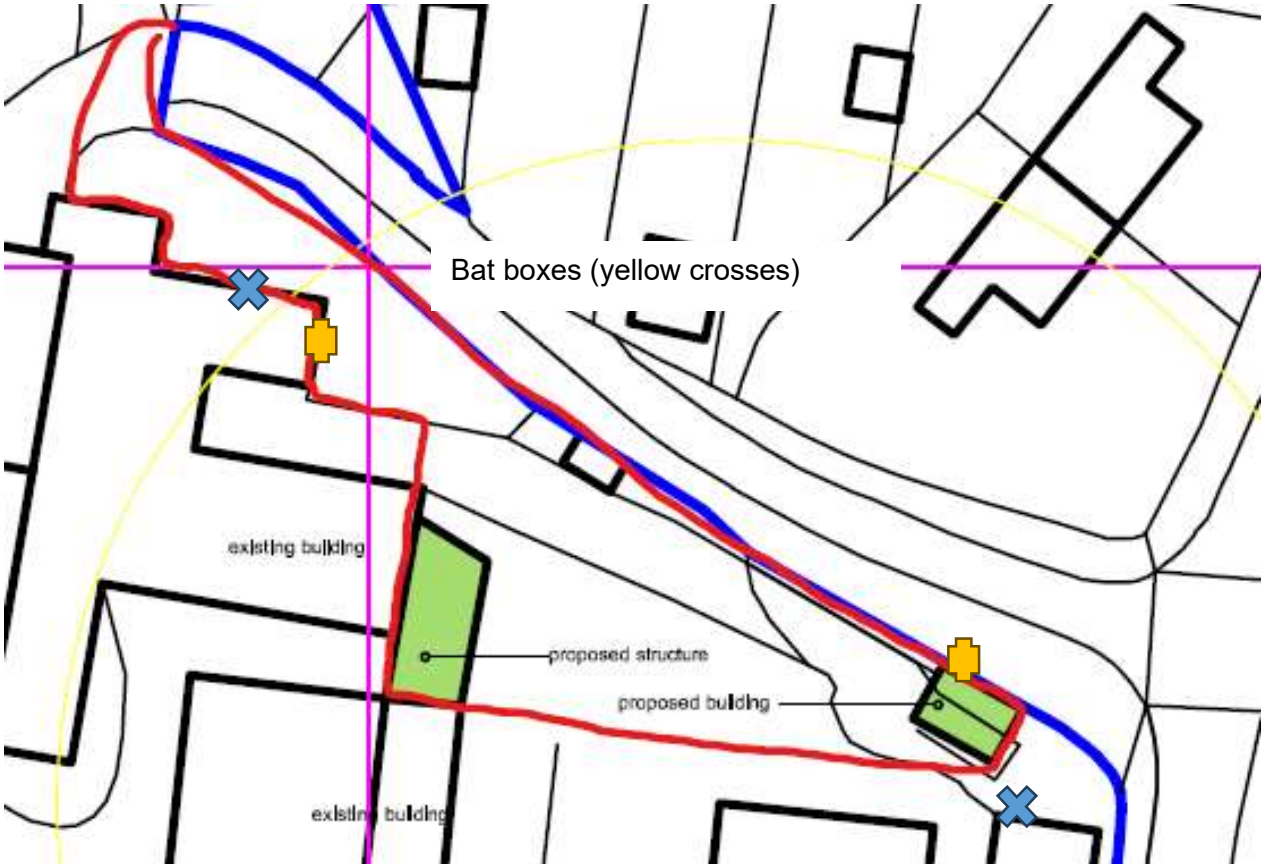


Figure 6. Post development NBB proposals.

7.0 Green Infrastructure Statement

In accordance with Planning Policy Wales (Chapter 6), all applications are now required to provide a statement in relation to Green Infrastructure (paragraph 6.2.12) to ensure that the proposed development will not negatively impact the wider green infrastructure. This is to be achieved and demonstrated using the step-wise approach as outlined in the PPW. For minor developments such as this proposal – this statement need only be a brief description.

The development at Pen-Y-Parc Farm, Halton is for the roofing over of two small areas of existing farmyard – a cattle feeding area and an area used to collect and pump slurry. The pre-existing site is entirely concreted and contains no habitats of ecological importance – there will be no loss of biodiversity from the proposed works.

The Planning Policy Wales Step-Wise Approach

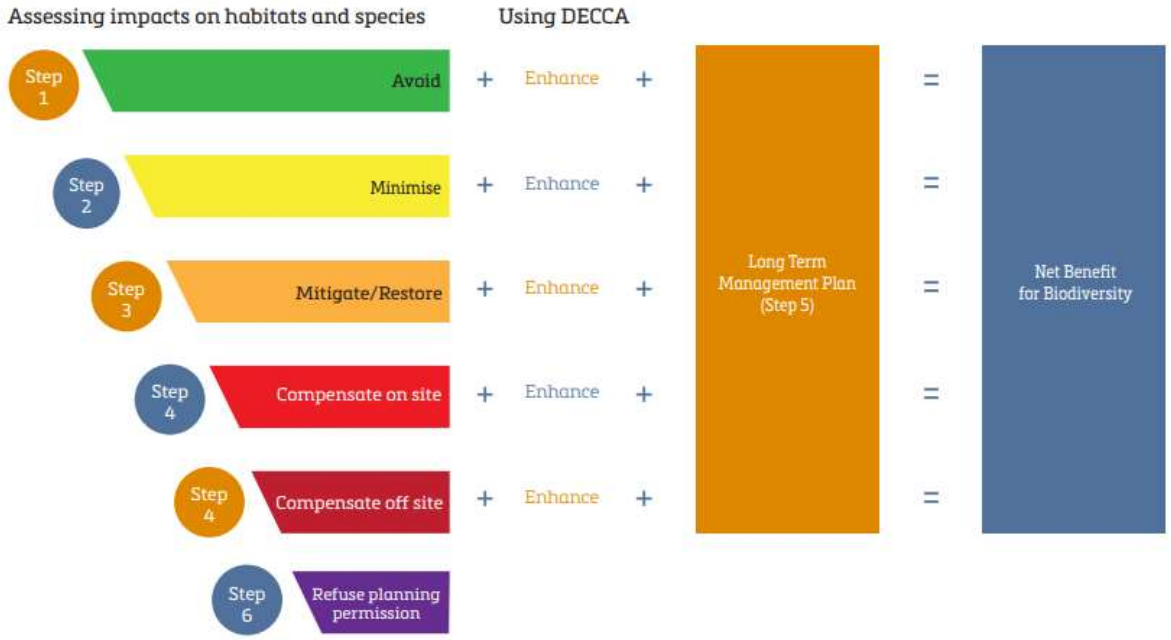


Figure 10. Summary of the Step-wise approach taken from Planning Policy Wales (6.4.21)

Step 1

The priority is to avoid any damage to biodiversity – variety of species/habitats and maintenance of ecosystem functionality. The layout and nature of the proposals on a pre-existing farmyard means that there is no impact on biodiversity (adjacent oak tree and brick buildings that may provide some habitat opportunities for nesting birds and roosting bats will remain unaffected).

Step 2

The next step is to minimise the impact. There will be no impact on biodiversity from the proposed works.

Step 3

The third step is to mitigate and restore habitats that are unavoidably lost. There will be no loss of habitat.

Step 4

To ensure on-site compensation/enhancement. Although there is no loss of habitat the proposed development will enhance habitat opportunities for nesting birds and roosting bats though the installation of 2 sparrow terraces and 2 bat boxes. The resulting biodiversity value of the site will be higher than the original.

Step 5

No off-site compensation is deemed necessary due to the size and small scale of development, along with reasonable on-site compensation.

Step 6

The step-wise approach is clearly being followed for the development proposals.

8.0 References

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