Land at Tupa, Penley Hall Drive, Penley, Wrexham

Green Infrastructure Statement & Net Biodiversity Benefit

10th February 2025

Authored by Richard Roe BSc MSc MCIEEM CEnv

CONTACT DETAILS

KINGDOM ECOLOGY LTD
7 Speke Road
Woolton
Liverpool
L25 8QA

Tel: 07799844249
Email: enquiries@kingdomecology.com

CONTENTS

1 Introduction 2

1.1 Background 2

1.2 Baseline Habitats and Species 2

1.3 Green Infrastructure and Net Biodiversity Benefit 3

1.3.1 Introduction 3

1.3.2 Net Benefit and the Step-Wise Approach 4

1.3.3 Step-wise Approach to the development - Avoid, Minimise, Mitigate 5

1.3.4 Site Enhancements (Net Biodiversity Benefits) 7

1 Introduction

1.1 Background

Development proposals are to construct 9 dwellings on land at Tupa, part of the former Polish hospital/WWII hospital site, located on Penley Hall Drive, Penley, Wrexham.

As part of the development a Green Infrastructure Statement has been produced along with proposals to allow the development to deliver a Net Biodiversity benefit.

In summary, biodiversity enhancements will include the creation of a mitigation area to the east of the proposed housing. The mitigation area will comprise of approximately 1 ha of land comprising areas of rough grassland, tree and scrub planting and will include the construction of two new wildlife ponds. The habitat mitigation layout is shown on Figure 1 in the Appendix.

Proposals within the mitigation area will include:-

- Creation of a two ponds to be of benefit to wildlife
- Management of grassland, scrub and woodland habitat
- Construction and maintenance of a 'bat house'
- Construction of 4 x great crested newt hibernacula

Further biodiversity enhancements will include the installation of bat and bird boxes into the proposed new housing for the site.

1.2 Baseline Habitats and Species

Ecology works associated with the initial planning application for the site included a series of field surveys which were completed in 2019. Further detail on survey findings can be found within the associated report for the site- '*Addendum Report - Extended Phase One Survey and Ecological Impact Assessment for land to the south of Tupa, Penley, Wrexham*' as produced by Tim Hodnett of EDC in July 2019).

In summary, the previous surveys identified:

- Great crested newt within two ponds located approximately 100m to the north-east of the site boundary.
- No evidence of badger was identified on site, however a badger sett was identified approximately 50 m to the north-east of the study site boundary.
- A lesser horseshoe bat night roost/feeding perch was identified within a hut present on the site. It was considered that the remaining structures and trees were unsuitable for crevice roosting bats. A transect survey and static bat detector survey recorded no evidence of lesser horseshoe bats at the site however

foraging common and soprano pipistrelle, whiskered bat, brown long-eared bats and noctule were recorded passing through the site.

- Suitable nesting habitat for breeding birds was identified within buildings, scrub and trees.
- The site has developed from a managed former hospital site, with huts and an ancillary buildings and access roads and paths, to an unmanaged area which has developed areas of self-seeded tree and scrub stock, areas of rank grass, with areas of ruderal tall herb. The Habitats at the site include areas of semi-natural broadleaved woodland; scattered mature oak trees; areas of continuous scrub; tall ruderal herbaceous habitats; and areas of amenity grassland.
- Habitats of greatest biodiversity value recorded within the site are considered to be the scattered mature oak trees and the existing area of broadleaved woodland.

The previous ecology works made recommendations to avoid impacts to key species and recommendations to provide off-site mitigation habitats.

1.3 Green Infrastructure and Net Biodiversity Benefit

1.3.1 Introduction

Chapter 6 of the updated planning policy Wales (PPW) Version 12 includes key changes to planning policy in Wales including green infrastructure and net benefit for biodiversity.

The updated PPW requires planning authorities to firstly ensure that development avoids and then minimises impact on biodiversity and ecosystems and secondly that it provides opportunities for enhancement within areas identified as important for the ability of species to adapt and/or to move to more suitable habitats (Para 6.2.8).

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, informed by an appropriate level of assessment, green infrastructure can embed the benefits of biodiversity and ecosystem services into new development and places, help to overcome the potential for conflicting objectives, and contribute to health and well-being outcomes (PPW, Para 6.2.11).

A green infrastructure statement should be submitted with all planning applications. This must be proportionate to the scale and nature of the development proposed and will describe how green infrastructure has been incorporated into the proposal (PPW, Para 6.2.12).

1.3.2 Net Benefit and the Step-Wise Approach

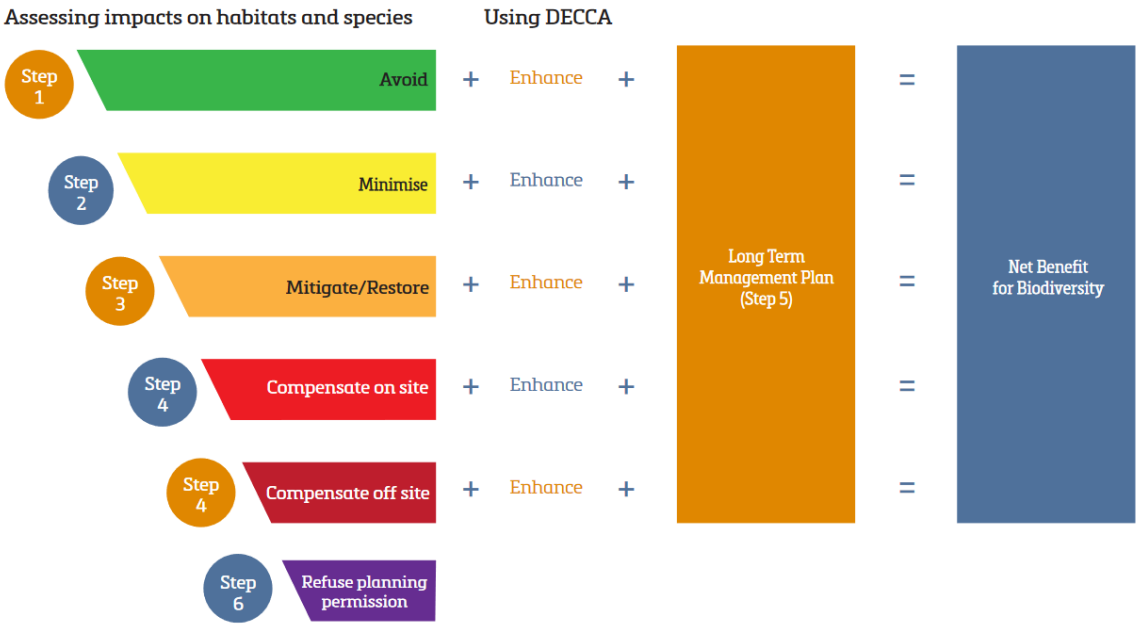
The updated PPW states that Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means development should not cause any significant loss of habitats or populations of species, locally or nationally and must work alongside nature and it must provide a net benefit for biodiversity and improve, or enable the improvement, of the resilience of ecosystems (PPW, Para 6.4.5)

Planning authorities must follow a step-wise approach to maintain and enhance biodiversity, build resilient ecological networks and deliver net benefits for biodiversity by ensuring that any adverse environmental effects are firstly avoided, then minimized, mitigated, and as a last resort compensated for. Enhancement must be secured by delivering a biodiversity benefit primarily on site or immediately adjacent to the site, over and above that required to mitigate or compensate for any negative impact (PPW, Para 6.4.11).

As part of the development proposals at Tupa, the application has considered recent changes within PPW 12 including adoption of the 'step-wise' approach to retention and incorporation of green infrastructure within the development and to ensure that the development delivers a net benefit for biodiversity.

The stepwise approach requires the design of a development to follow the mitigation hierarchy whereby the proposals should initially avoid damage to biodiversity; where this is not possible proposals should minimise the impacts on biodiversity through appropriate locational, siting and design options; where measures to minimise impact on biodiversity and ecosystems could still result in damage or loss, the proposed development should mitigate that damage. Where like for like mitigation measures are not possible, it may be necessary to consider on site compensation measures in the first instance. As a last resort, off-site compensation for unavoidable damage must be provided. Figure 1 below is taken from the updated PPW and shows a summary of the 'Step-Wise Approach'.

Figure 1- Step-Wise Approach Summary



1.3.3 Step-wise Approach to the development - Avoid, Minimise, Mitigate

As previously described, habitats at the study site have developed from a managed former hospital site, with huts and an ancillary buildings and access roads and paths, to an unmanaged area which has developed areas of self-seeded tree and scrub stock, areas of rank grass, with areas of ruderal tall herb.

The features of greatest biodiversity value are considered to be the scattered mature oak trees and the block of broadleaved woodland hedgerows around the perimeter is the site.

Wherever possible, the proposed development has avoided impacts upon identified key habitat features (the mature trees and woodland habitats). The development will not adversely affect any designated sites.

Some areas of scrub and tall ruderal habitat will need to be removed in order to provide appropriate site access. However, in line with the step-wise approach, efforts to avoid and minimise impacts upon key habitats and other features of biodiversity value have been made, whilst still permitting a developable site to be designed. Where impacts on habitats cannot be avoided or minimised, these will be mitigated and compensated through creation of the adjacent habitat mitigation area.

Full detail of habitat creation proposals for the Ecology Mitigation Area can be found within the associated Kingdom Ecology report "*Land at Tupa, Penley Hall Drive, Penley, Wrexham- Conservation Plan*" dated 10th February 2025.

With regards to bat foraging and commuting habitat and great crested newt habitat , the development will provide new corridors of habitat including wildflower grassland, scrub, waterbodies, scattered trees and woodland which will be created within the Ecology Mitigation Area. These habitats will provide refuge, foraging and breeding habitat for amphibians; enhanced commuting habitats for bats; suitable bird nesting opportunities as well as providing additional foraging opportunities for bats and birds.

The likely presence of great crested newt and of a lesser horseshoe night roost would require development to be carried out under a European Protected Species Licence as issued by Natural Resources Wales (NRW).

In summary, proposed great crested newt mitigation includes the requirement to provide terrestrial and aquatic great crested newt habitat adjacent to the site which will be retained and managed in perpetuity. In addition, the mitigation strategy will require that the proposed development area and mitigation area are fenced with temporary amphibian fencing and are trapped out for an appropriate number of days as specified within the European Protected Species Derogation License, which will be acquired for the site. Full details of measures to remove great crested newt from the proposed development site will be contained within the associated method statement attached to the European protected species derogation license.

The mitigation measures for lesser horseshoe bat include the construction of a new building on the eastern edge of the site within the proposed mitigation area. The bat house would be designed to offer suitable roosting habitat for lesser horseshoe bats.

To avoid impacts on nesting birds, vegetation clearance would be undertaken outside of nesting season (March to August inclusive). Where this is not possible, a pre-works check of vegetation will be completed immediately prior to clearance.

Further detail on site clearance works to avoid impacts to wildlife are contained within the Conservation Plan report for the site.

1.3.4 Site Enhancements (Net Biodiversity Benefits)

As previously described, the proposed Ecology Mitigation area will be situated immediately to the east of the main development site.

The area will comprise of approximately 1 ha of land comprising areas of rough grassland, tree and scrub planting and will include the construction of two new wildlife ponds. Four amphibian hibernacula will be constructed within the mitigation area and a new bat house/horseshoe roost will also be constructed.

The mitigation area will link with an existing pond which has been identified as supporting great crested newt and will also connect with areas of existing woodland located to the east of the site.

Habitat Management Proposals are included within the Conservation Plan for the site. The habitat management plan for the on-site mitigation habitat has been designed around the following key principles and aims:-

- Where possible, retain blocks of interlinked habitat as opposed to isolated pockets of habitat;
- Maximise the biodiversity value of retained habitats at the site;
- Maintain a diverse range of habitats within the mitigation area including two wildlife ponds and a range of terrestrial habitats to comprise of approximately 30-70% scrub/woodland habitats and 30-70% scrub/woodland habitats wildflower grassland habitats.
- Ensure the long-term viability of the habitat by appropriate, long-term management and long-term protection of the habitat;
- Allow for a flexible and iterative process with regards to the management of the habitats through an annual review of the habitats present and the management plan to allow biodiversity opportunities to be explored and promoted.

These Ecology Mitigation area will more than compensate for the loss of areas of existing scrub and ruderal habitats. The landscaping proposals will therefore deliver a net biodiversity benefit.

Habitats will be protected and managed through a long-term landscape and habitat management plan for the site.

As previously described, enhanced bat roosting and bird nesting opportunities will be provided through the delivery of a bat and bird box scheme installed within the proposed new housing.

Taking the above into account, the proposed development provides a significant net benefit for biodiversity. The development will ensure that ecological resilience is maintained within the wider landscape, with the provision of the new habitat mitigation area, linking up with the retained great crested newt pond and further pockets of woodland habitat located to the east of the site.