



Biodiversity Enhancement Plan:
Land adjacent at Heolgerrig,
Merthyr,
CF48 1RL

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Prepared by Dylan Llywelyn on behalf of I&G Ecological Consulting

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Contents

Table of Figures	2
Summary	3
1. INTRODUCTION	4
2. Scope of Enhancement	5
2.1 Proposed Site Layout.....	5
3. Enhancements for Species	6
3.1 Nesting Birds	6
3.2 Bats.....	6
3.3 Reptiles and Amphibians.....	7
3.4 Invertebrates.....	7
3.5 Hazel Dormouse	8
3.6 Invasive Non-Native Species (INNS)	8

Table of Figures

Figure 1. Aerial image of the site, with red line boundary (located at OS GR: SO 02561 05368)	4
Figure 2. Proposed Stable Development	5

Summary

Following the results of the Preliminary Ecological Appraisal (PEA), I & G Ecological Consulting were commissioned to produce a Biodiversity Enhancement Plan (BEP) in line with the Environment (Wales) Act 2016. The BEP is to include appropriate biodiversity improving recommendations, as touched on in the PEA.

A Preliminary Ecological Appraisal was undertaken on approximately 2.53 hectares of land, spread over 2 parcels of land. The habitats present within the wider survey area include broadleaved semi-natural woodland, mixed plantation woodland, dense scrub, scattered scrub, marshy grassland, standing water, running water and bare ground and ephemeral / short perennial. Boundary features consist of fencing. The site contains potentially suitable habitat for mammals (including badger), birds, bats, reptiles and amphibians.

1. INTRODUCTION

I & G Ecological Consulting were commissioned to undertake a Biodiversity Enhancement Plan following the undertaking of a Preliminary Ecological Appraisal Report in March 2023. This report aims to satisfy Section 6 of the Environment (Wales) Act 2016, which 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 provide a net benefit for biodiversity.

The PEA describes the land as consisting of broadleaved semi-natural woodland, mixed plantation woodland, dense scrub, scattered scrub, marshy grassland, standing water, running water and bare ground and ephemeral / short perennial. Boundary features consist of fencing. The site was assessed as being of *moderate local* ecological value, in the absence of mitigation, the development may result in impact on mammals (including badger), birds, bats, reptiles and amphibians. The following report seeks to provide habitat enhancement proposals for the species groups in question. Refer to Figures 1 and 2 below for location overview.



Figure 1. Aerial image of the site, with red line boundary (located at OS GR: SO 02561 05368)

2. Scope of Enhancement

2.1 Proposed Site Layout

- 2.1.1 The development is proposed to be constructed on area adjacent to the gate, within the larger land parcel, where there are currently bare ground and ephemeral / short perennial habitats (Figure 2).

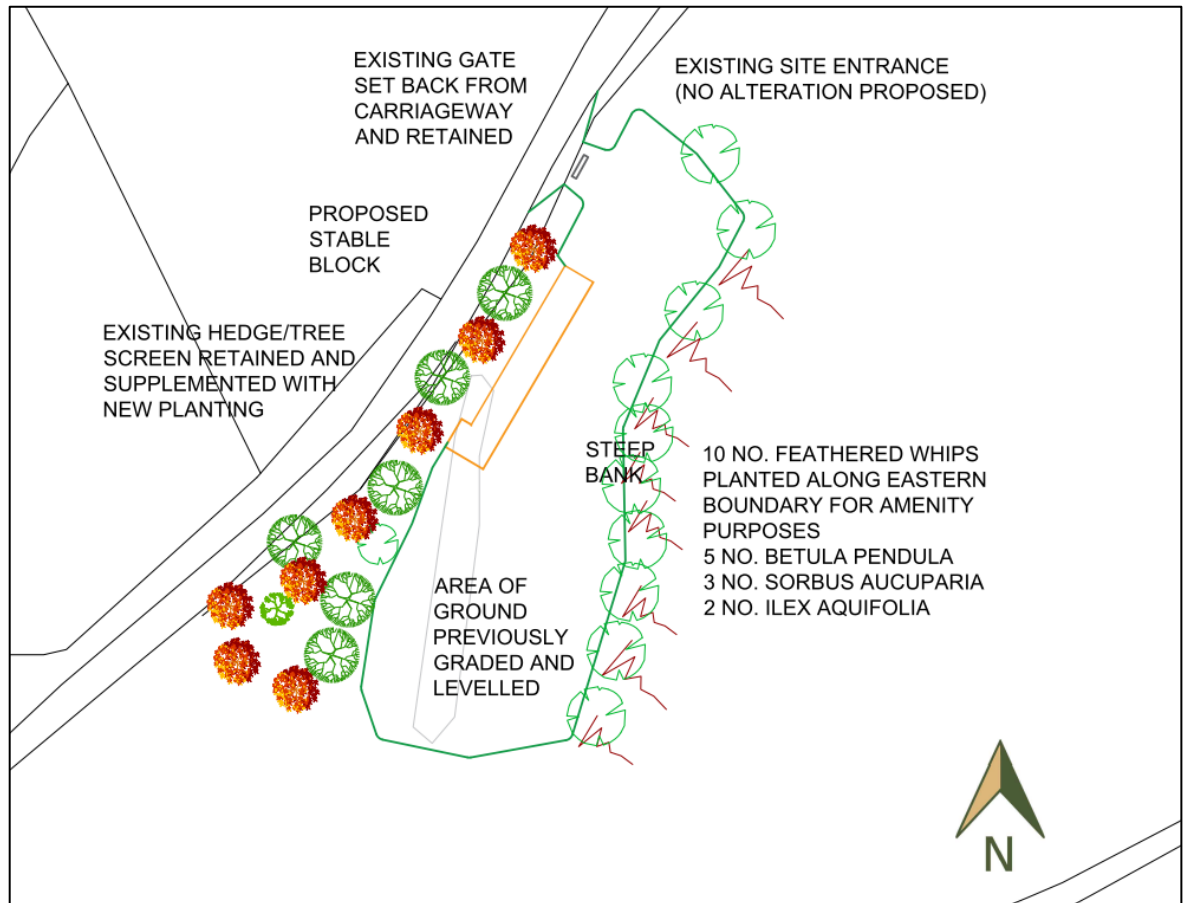


Figure 2. Proposed Stable Development

3. Enhancements for Species

3.1 Nesting Birds

3.1.1 Provision for bird nesting can be achieved by incorporating a mix of bird box types and sizes onto suitable trees within the site and should include open fronted and traditional hole fronted.

3.1.2 Additionally, nest boxes can be placed on, or incorporated into the proposed stable roofing / walls. These are typically made of timber, but there are numerous materials and bespoke product finishes also available. Consideration of position is important to avoid disturbance to chicks, and mess to doorways, windows and vehicles / equipment.

3.1.3 Proposed Enhancement Provision:

- 1x house sparrow terrace nest box on the south-western elevation of the proposed stables.
- 2x house martin cup nest boxes on the south-eastern elevation of the proposed stables.
- 3x bird boxes on mature trees in the wooded area to the south-west and east of the larger land parcel.

3.1.4 Position of boxes will be based on advice from an on-site ecologist and supplier support (e.g., wildcare.co.uk or another specialist provider). See Appendices 1 and 4 for reference.

3.1.5 Annual maintenance (e.g. cleaning out, checking attachment is secure) will be undertaken by site occupant.

3.2 Bats

3.2.1 Bats will utilise the site for foraging and roosting. Additional capacity can be provided by erecting suitable artificial roosts / bat boxes on trees within the woodland in the south-west, and the east, of the larger land parcel. minimum height of two meters, and without obstruction (clear flight line to front of box).

3.2.2 Artificial roost boxes can be incorporated into the new stables (either as externally erected roosts or incorporated into the fabric of the buildings).

3.2.3 Proposed Enhancement Provision:

- 1x artificial roost box to be incorporated into proposed development, situated alongside the north-western boundary.

- 2x artificial roost boxes to be erected within the areas of mature woodland to the south-west and east of the larger land parcel.

3.2.4 If it is evident that the boxes are in use by bats, they must not be disturbed and only moved / cleaned under the supervision of or by a licenced bat ecologist. See Appendices 2 and 4 for reference.

3.3 Reptiles and Amphibians

3.3.1 The PEA noted that the site possesses some habitat suitable for reptiles. Enhancement for reptiles is usually in the form of improved habitat quality (through sensitive management) and often the provision of man-made hibernaculum, see Appendices 2 and 4 for reference.

3.3.2 Proposed Enhancement Provision:

- Creation of 1 reptile and amphibian 'refugia and hibernacula' – which is essentially a log, rock, and turf pile, constructed on a gentle slope to prevent flooding of hibernaculum. Any leftover logs and brash accumulated during the works will be piled safely in undisturbed areas of retained habitat. The hibernaculum will not require maintenance and should be left undisturbed. See Appendices 2 and 4.

3.4 Invertebrates

3.4.1 The areas of retained grassland may be seeded with appropriate native species, with the aim of improving the habitat in relation to its surroundings. Incorporating artificial refugia within trees and planting of native trees, shrubs and hedging will also benefit invertebrates.

3.4.2 Proposed Enhancement Provision:

- Areas of suitable retained grassland, such as the smaller land parcel and south-western area of the larger land parcel, should be planted with a selection of species from the following-
 - Grasses: Common bent (*Agrostis capillaris*), crested dog's-tail (*Cynosurus cristatus*), sweet vernal grass (*Anthoxanthum odoratum*), and meadow foxtail (*Alopecurus pratensis*)
 - Sedges: Flea sedge (*Carex pulicaris*), oval sedge (*Carex ovalis*), and tawny sedge (*Carex hostiana*).
 - Rushes: Soft rush (*Juncus effusus*), sharp-flowered rush (*Juncus acutiflorus*), and jointed rush (*Juncus articulatus*).
 - Marsh marigold (*Caltha palustris*), devil's-bit scabious (*Succisa pratensis*), meadowsweet (*Filipendula ulmaria*), and ragged-robin (*Lychnis flos-cuculi*).

3.4.3 On-site provision of devil's-bit scabious will support marsh fritillary populations in the area and increase habitat connectivity (they have been recorded in adjacent habitats).

- 3.4.4 Depending on species recommended by supplier, management will likely be an annual cut and removal of arisings for grassland mixes. A suitable grazing regime may also prove sufficient.

3.5 Hazel Dormouse

- 3.5.1 Although there are no records of hazel dormouse in the area, this may be due to lack of surveying. The area of woodland in the centre may be enhanced to provide suitable habitat for dormouse. See Appendices 3 and 4.
- 3.5.2 Proposed Enhancement Provision:
- 1x dormouse box, in a suitable location away from human disturbance, at least 2 meters above the ground, fix it securely to a tree trunk, orient the entrance hole towards the trunk, surround the box with vegetation and maintain it annually to keep it in good condition.

3.6 Invasive Non-Native Species (INNS)

- 3.6.1 All buddleia specimens will require digging out in their entirety and left to dry out for burning, or removed by a licenced waste carrier to an approved waste site. The species is identifiable at any time of year but should be removed before significant site clearance (and therefore before extensive tracking occurs across the site).
- 3.6.2 Do not dispose of any INNS in the council's general waste or garden waste system, and plants must not be taken off site unless transporting to licenced waste site.
- 3.6.3 An appropriate monitoring scheme will be included in any INNS Treatment Plan Agreement with the Planning Authority, and will ensure that new native planting is not adversely affected by INNS or treatment in subsequent years.

Appendix 1 – Artificial Nests / Roosts

Artificial Bird Nesting products



Swallow Cup



Swift Box



Open fronted nest box



Habitat Starling Box



House Sparrow Terrace



Swift terrace

Artificial Bat Roosts

External



Internal (there is a large range of designs, including maternity roosts – see * below)



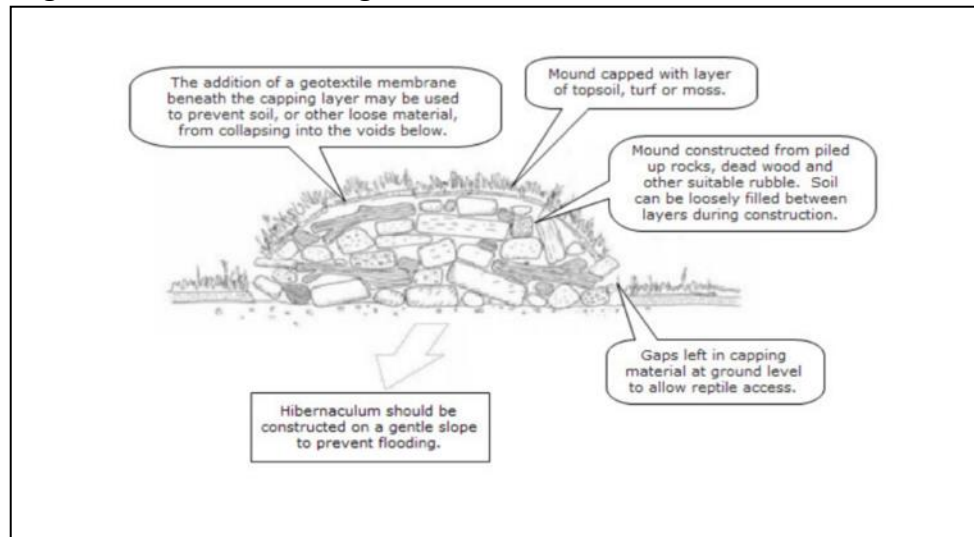
Ibstock bat brick

Habitat Bat Access Tile

**Courtesy of Wildcare – Nationwide Ecology Supplies – see www.wildcare.co.uk
For full details.*

Appendix 2

Reptile Refugia / Hibernaculum design



An example of a suitable hibernaculum for the use of hibernating reptiles/amphibians

Appendix 3

Dormouse Nest Box



An example of a suitable dormouse nest box

Appendix 4

