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Pentrebach Playing Fields, Merthyr, Wales

Green Infrastructure Statement
&
Biodiversity Enhancement Strategy

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1 Introduction

North-South Ecology Ltd has been appointed by Paul Thomas of Utopia Design on behalf of Adrian Jones of Red Lion Trez, to prepare a Green Infrastructure Statement and Biodiversity Enhancement Strategy for proposed works at Pentrebach Playing Fields, located off Duffryn Road, Pentrebach, Merthyr Tydfil, CF48 4BJ. This submission supports a planning application (Reference: P/25/0143) for the installation of a new crowd barrier with access gates, two dugout bases, and the siting of two storage containers at the recreation ground.

The application site comprises highly managed amenity grassland forming part of an existing playing field and recreational space. The site is bounded by off-site tree lines to the east and lies in close proximity to several locally designated Sites of Importance for Nature Conservation (SINCs), with the Afon Taf SINC approximately 245m from the site. Additional nearby ecological features include areas of Ancient and Restored Ancient Woodland.

Although no formal ecological survey was deemed necessary for this proposal, biodiversity and green infrastructure considerations are necessary under national policy and legislation. Planning Policy Wales Edition 12 and the Environment (Wales) Act 2016 place a statutory duty on developers to maintain and enhance biodiversity, requiring a proactive and integrated approach to green infrastructure delivery.

This report outlines how the proposed scheme at Pentrebach Playing Fields will contribute positively to local green infrastructure and ecological networks, detailing measures that secure net biodiversity gain through habitat enhancements and long-term management.

1.1 Proposed Works & Relevant Legislation

The proposed development at Pentrebach Playing Fields (Planning Reference: P/25/0143) includes the installation of a new crowd control barrier with gates, construction of two dugout bases, and the placement of two storage containers. These works are intended to enhance the functionality of the site as a sports and recreational facility.

The site is characterised as amenity grassland, managed primarily for recreational use, and is bounded by trees that provide some natural screening and ecological value. While the development is relatively minor in scale and does not trigger the need for formal ecological survey work, enhancement measures are nonetheless required under the current legislative and planning policy framework.

The following key pieces of legislation and policy are relevant to the proposed works:

- **Environment (Wales) Act (2016):** Places a duty on public authorities to maintain and enhance biodiversity and promote the resilience of ecosystems. All development proposals must demonstrate how they contribute to this duty.
- **Planning Policy Wales (Edition 12) (2024):** Emphasises the integration of green infrastructure and the delivery of net benefit for biodiversity through a step-wise approach to development.

Proposals should incorporate nature-based solutions and demonstrate strategic consideration of enhancement opportunities.

- **Well-being of Future Generations (Wales) Act (2015):** Requires public bodies to consider the long-term impacts of their decisions on environmental well-being, including the need to secure healthy ecosystems and sustainable use of natural resources.

In line with the above, the development will include specific biodiversity enhancement measures, such as wildflower meadow creation and the installation of bat and bird boxes, to deliver ecological improvements that align with national and local priorities.

1.2 Objectives of the Biodiversity Enhancement Strategy

The biodiversity enhancement objectives for the Site are as follows:

- Increase roosting opportunities for the local bat population;
- Increase nesting opportunities for the local bird population; and
- Increase species and structural diversity of on-site grassland habitats.

1.3 Site Context

This Green Infrastructure Statement and Biodiversity Enhancement Plan refers to Pentrebach Playing Fields, located off Duffryn Road in the village of Pentrebach, Merthyr Tydfil (postcode: CF48 4BJ). The site is centred on national grid reference SO 06361 03688. The location of the Site is illustrated in **Figure 1** below along with the boundary of land ownership.



Figure 1: Site boundary (Utopia Design) (Left) and wider land ownership (Right)

The site comprises a level parcel of intensively managed amenity grassland currently used as a football pitch, with associated boundary features including mature trees and low vegetation. The development proposals relate to a central area of the playing fields, with existing access from Duffryn

Road. Proposed structures include two dugout bases, two storage containers, and a new 1.1m high crowd barrier with access gates, positioned in close proximity to the pitch.

The site lies within a predominantly residential area, with housing and public facilities in the immediate vicinity. To the north and east are residential streets and recreational amenities, while to the south and west, the site is bordered by further greenspace.

Although the site itself supports low ecological value due to regular maintenance, the wider offsite landscape supports notable features including four Sites of Importance for Nature Conservation (SINCs), with the closest (Afon Taf SINC) located approximately 245m away. Ancient Semi-Natural Woodland and a Restored Ancient Woodland Site also occur nearby.

2.0 Green Infrastructure Statement

Pentrebach Playing Fields comprises a parcel of green space currently maintained as amenity grassland for recreational use, predominantly football. The site itself is intensively managed, offering limited structural or botanical diversity. However, the site is bound by a tree line (immediately off site) along the north eastern extent. A small number of trees also occur to the southern most extent of the Site. Tree lines and scattered trees serve as important green infrastructure elements, at the local scale: Providing shelter, foraging habitat for biodiversity.

The proposed development is small in scale and confined to a localised area within the playing field, avoiding any impact to existing boundary features, trees or wider green space. Both the eastern treeline and all trees on site boundaries will be retained, as will the majority of amenity grassland. The scheme presents an opportunity to enhance the site's green infrastructure through the creation of wildflower planting areas, improved grassland management, and the implementation of a site-specific Biodiversity Enhancement Strategy. These measures will mitigate any small scale loss of grassland area, whilst enhancing the Site overall, reinforcing ecological connectivity and increasing habitat diversity. The proposed biodiversity enhancement strategy will result in a net gain across the wider site in line with national and local planning objectives.

3.0 Enhancement Strategy

3.1 Bat and Bird Box Scheme

To provide enhancement to the Site, a scheme of bat and bird boxes will be installed within Site to increase roosting/nesting capacity of the Site for local bat and bird populations. In all cases, photographic evidence of the finished installation of the proposed boxes should be forwarded to Merthyr County Borough Council (MCBC).

Bat Boxes

Two bat boxes will be installed on the southern aspects of the tree adjacent to the hall building to the southern most extent of Pentrebach Playing Fields. See **Figure 2** for proposed locations (Exact locations will be decided by an experienced ecologist on the day). A durable model (ideally of woodcrete construction) suitable for external mounting on trees will be chosen for installation. The following numbers and makes of bat boxes are recommended:

- 2 x Greenwoods Ecohabitats Single Crevice Bat Boxes (or similar model)

The bat boxes will be installed on trees, where they face suitable commuting and foraging habitats.

Each box will be mounted as high as possible on the tree (ideally above 4 metres) above ground level.

Each box will be installed on either the south or west facing aspects.

Boxes will be installed in locations where entrances are unobstructed by vegetation and will not be illuminated at night. These features will be retained and maintained in perpetuity as part of the site's ongoing biodiversity enhancement strategy.

Installation should be supervised by a suitably experienced ecologist and monitoring checks should be undertaken 1 year after installation. The upkeep and maintenance of the bat and bird boxes is the responsibility of the developer.

Bird Boxes

Two bird boxes will be installed on the tree adjacent to the hall building to the southern most extent of the Pentrebach Playing Fields site. See **Figure 2** for proposed locations (Exact locations will be decided by an experienced ecologist on the day). The following models of bird boxes are recommended to provide nesting opportunities for common species likely to occur within the site, such as house sparrow and great tit. The following numbers and makes of bird boxes are recommended:

- 1 x Schwegler 1B 32mm Nest Box (or similar models, e.g. Vivara Pro Seville 32mm WoodStone Nest Box) Suitable for species such as flycatchers, tit species, nuthatch and sparrows.
- 1 x Schwegler 1B 26mm Nest Box (or similar models) Suitable for blue tit, marsh tit, crested tit and coal tit.

The bird boxes will be installed on eastern and northern aspects of the tree, in positions that are sheltered from prevailing wind and rain and not exposed to direct sunlight or artificial illumination.

Each box will be mounted as high as possible on the tree (ideally 4 metres or above if possible) to help minimise predation.

Installation should be supervised by a suitably experienced ecologist, and monitoring checks should be undertaken one-year post-installation. The ongoing upkeep and maintenance of the bird boxes is the responsibility of the developer.

3.2 Wildflower Planting and Grassland Management

The Site currently presents an area of highly managed amenity grassland and could be improved to create opportunities for a broad range of species, particularly invertebrates, which will in turn increase the overall value of the Site for various other species (including bats and birds) due to the increase in prey resource. As such, to enhance the Site, it is recommended that an area equating to 5% of the

development footprint is enhanced with wildflower sowing and specific grassland management regime as described in detail below.

The total area of the development land is approximately 50m². It is therefore recommended that a 5m² area of the amenity grassland area within the ownership boundary is subject to wildflower planting and subsequent sensitive management. See **Figure 2** for indicative areas for wildflower planting.

Wildflower seed planting should be undertaken using a suitable seed mix of UK provenance such as Basic General Purpose Wild Flowers EM2F (<https://wildseed.co.uk/product/mixtures/wild-flower-only-mixtures/standard-general-purpose-wild-flowers/>). Ground preparation, planting and appropriate aftercare should follow advice provided by the seed supplier (<https://wildseed.co.uk>).

The area to be planted should be cut very short in the late summer and areas of bare soil created by raking, achieving approximately 50% cover of bare earth in preparation for sowing wildflower seeds.

Wildflower seeds should ideally be sown between September and October in calm, dry weather conditions at a rate of 2-5g per m². Seed will be sown by hand and may be mixed with sand or sawdust to allow an even distribution across the area. The surface should be tread lightly following sowing.

Following sowing, no ground disturbance such as raking or machinery within the area should occur. The area should be monitored closely for the first six weeks following sowing, should periods of drought occur following sowing, watering may be required and should be undertaken as and when needed over this period. If needed, clear tarpaulin or netting may be used to deter birds from consuming the seed.

Alternatively, and should the above fail, a flower rich lawn could be created through the installation of wildflower mats (such as: <https://www.thelawnstore.co.uk/product/flowers-herbs-wildflower-turf/>). Turfs/mats used should comprise native UK species only, ideally of local provenance. Mat installation and aftercare should follow the advice set out by the lawn supplier.

Ongoing management of the wildflower area should comprise the following:

- No application of fertiliser and/or pesticides should be used at any time on newly created grassland areas.
- Grassland areas will be subject to a mowing regime comprising a single cut in the late summer (August/September). In the first year of establishment mowing should achieve a sward height of 100-150mm. In subsequent years the mowing regime should attain sward heights of 50mm. Additional cuts during the spring may be needed to control rank grasses, this should be undertaken as and when needed.
- Any arisings created through the management of the grassland area must be collected (either by use of a mower that collects arisings as it cuts or the arisings should be raked and collected) and removed from the Site.

The planting of a wildflower area will not only increase botanical species diversity within the site but act to increase structural heterogeneity across the site, providing edge habitats where amenity, highly managed grassland habitat meet taller wildflower swards around the perimeter. This will enhance the site for common reptiles and a range of invertebrate species, in turn benefitting a wide range of species.

The developer should undertake and fund long-term habitat management, in accordance with the principles outlined above, for a minimum period of 25 years.

The developer will fund and be responsible for the care, upkeep and ongoing management of the wildflower area.

Figure 2: Biodiveristy Enhancement Plan

