

Green Infrastructure Statement

1 Introduction

This Green Infrastructure (GI) Statement has been prepared to support the proposed development at Cefn Dryscoed Water Treatment Works (WTW). It aligns with the requirements of Green and Blue Infrastructure (GBI) best practice as set out in Planning Policy Wales, the Welsh legislative framework, and principles described within the Green and Blue Infrastructure Assessment (2023).¹

This document describes how the Step-Wise Approach has been implemented within the design of the Proposed Development and describes proposed enhancements to benefit biodiversity, in line with the DECCA framework. An Ecological Impact Assessment (EclA) has also been produced which assesses the effects and presents the mitigation, compensation and enhancement measures for the Proposed Development (Mott MacDonald Bentley, 2026).

2 Baseline Green Infrastructure Context

The site lies within the Bannau Brycheiniog National Park and an upland pastoral landscape defined by moorland, wooded valleys, stone wall field boundaries, hedgerows and pasture. Ancient semi-natural woodland lies adjacent to the site (unique ID 8101) with ancient woodlands aligning both the River Neath and Afon Mettle to the east and west. The wider area forms part of the internationally recognised Fforest Fawr UNESCO Global Geopark.

The proposed development is located next to the existing wastewater treatment site, north of William T Jenkins Farm. The proposed site sits on agricultural land with stone walling along the south edge and hedgerows and mature trees making the rest of the planning boundary edge.

The landscape here is defined by open hills and valleys with a mix of moorland and farmland. The hills rise gently in most places, though there are some steeper slopes and ridges that give the terrain a more rugged character. The colours are muted, with greens and browns dominating, reflecting grassland and heath typical of upland areas.

Baseline GI assets include:

- **Designated sites:** Coedydd Nedd a Mellte is located 0.47km to the west of the Proposed Development.
- **Habitats:** the site consists primarily of improved pasture fields bordered by hedgerows. One Section 7 Priority Habitat is located within the footprint of the Proposed Development, hedgerows. An additional four Priority Habitats are present immediately adjacent to the site, comprising: Lowland mixed deciduous woodland; Lowland dry acid grassland; Purple moor grass and rush pasture; and wet heathland.
- **Protected and/or notable species:** The site supports a four species of roosting bat, including a common pipistrelle (*Pipistrellus pipistrellus*) maternity roost within existing buildings. Soprano pipistrelle (*Pipistrellus pygmaeus*), *Myotis* sp. and brown long-eared bat (*Plecotus auritus*) roosts are also present. Other species known to be present include barn owl, which are known to have used the site to breed in the past. The habitats present also provide opportunities for reptiles, amphibians, breeding birds, hedgehog and invertebrates.
- **Adjacent ancient woodland:** a parcel of ancient woodland is present to the north of the Proposed Development, connecting to scenic wooded valleys in the wider landscape.
- Public Rights of Way network

¹ [Natural Resources Wales / Green Infrastructure Assessments: A guide to key Natural Resources Wales' datasets and how to use them as part of a Green Infrastructure Assessment](#)

3 Step-Wise Approach

In line with the Step-Wise Approach, the design of the Proposed Development has been informed by ecology, with impacts avoided or minimised as far as possible. Each stage of the Step-Wise Approach is described below. Further detail is included within the EclA report (Mott MacDonald Bentley, 2026).

Avoidance and Minimisation: As part of the design process, options that would result in impacts to high value habitats were avoided by locating the Proposed Development in an area of low value, modified grassland, retaining irreplaceable peat forming habitats at an early stage. The works have also been micro-sited to avoid tree and hedgerow loss as far as possible, with consideration also given to the presence of nocturnal species in the lighting design.

Mitigation: Full mitigation measures considered appropriate for the anticipated impacts of the Proposed Development are included within the EclA, these include; timing constraints to reduce impacts to roosting bats and barn owl. This includes restrictions on the working periods to daylight hours and avoiding construction works at night. Other measures include phased vegetation clearance to safeguard species such as reptiles, amphibians and breeding birds, alongside toolbox talk and ecological supervision.

Compensation: The Proposed Development will result in the permanent loss of 0.47ha of grassland (0.45ha of modified grassland and 0.02ha of semi-improved neutral grassland). As compensation for this habitat loss, grassland management will be undertaken to improve the species diversity and condition of 0.65ha of existing grassland, compensating for the loss of habitat. All habitats lost temporarily in order to connect pipelines from the DAF building to the existing site will be re-instated to the original condition upon completion of the works. This includes the replacement of any hedgerow lost and re-instatement of the stone wall.

Enhancements: In order to construct the new DAF building, DCWW are purchasing the northern half of a pasture field. All areas not required for the construction of the Proposed Development will be used to provide ecological enhancements. As such, compensation for the loss of habitats will be provided 'on-site'. This area will be set-aside and will be safeguarded from future development by DCWW. Proposed enhancements consist of the following:

- **Orchard planting:** An orchard will be planted within existing grassland (0.15ha).
- **Pond creation:** A pond will be created within the area of orchard planting. Native aquatic species will be planted around the margins of the pond, providing habitat suitable for invertebrates, amphibians and reptiles.
- **Woodland planting:** An area of broadleaved woodland will be planted to increase canopy cover, provide shelter for a range of species and improve carbon capture and heat retention (0.09ha). Species will include oak sp. and field maple, alongside understorey species such as holly and hawthorn.
- **Tree planting:** A line of broadleaved trees will be planted along the southern boundary of the pasture field, consisting of English oak and field maple (129m in length). The trees will be allowed to mature to provide opportunities for a range of species including bats and birds and will improve connectivity across the site.
- **Hedgerow creation:** A native, species-rich hedgerow will be planted adjacent to the new access track for the DAF building (52m in length). The hedgerow will be planted with a minimum of five native woody species.
- **Stone wall:** A dry-stone wall will be built around the perimeter of the new DAF building. The wall will provide opportunities for a range of species to shelter, including reptiles, amphibians, invertebrates and small mammals.
- **Artificial lighting:** The existing artificial lighting within Cefn Drysgoed WTW will be reviewed by an experienced bat ecologist and will be modified to reduce disturbance to bats.

- **Bat boxes:** One bat box will be installed on a retained tree line bordering Cefn Drysgoed WTW (in addition to any compensation boxes installed as alternative roost sites under an NRW licence). Where possible, bat boxes, bricks or suitable features will be embedded in the design of the new DAF building.
- **Bird boxes:** Where possible, nest boxes will be installed on the exterior of the DAF building.
- **Artificial refugia:** One log-pile will be created to provide opportunities for reptiles, amphibians, invertebrates and hedgehogs.

The proposed enhancements have been designed in line with the DECCA framework, which is described within Table 3.1 below.

Table 3.1: DECCA Assessment of Enhancements

Diversity	The diversity of species and habitat types at the site will be improved by implementing the proposed enhancements. Species diversity will be increased through grassland management of areas of species-poor modified grassland with a target of more than 10 species per m ² . Orchard planting and creation of a pond will also increase the diversity of habitat types present, improving habitat availability and quality for a range of species.
Extent	The extent of woodland, hedgerow and tree lines will be increased at the site by planting these habitat types. This includes planting of 52m of hedgerow, 129m of tree line and 0.09ha of broadleaved woodland. The extent of semi-improved grassland will also be increased through management of modified grassland to increase species diversity and condition with 0.47ha of modified grassland lost as a result of the Proposed Development and 0.65ha managed long-term.
Condition	At present, the band of lowland dry acid grassland is showing signs of nutrient enrichment, with species such as creeping thistle encroaching into the sward. Grassland management will improve the condition of this habitat and retain it in the long-term. Grassland management of modified pasture will also improve species diversity and condition.
Connectivity	Broadleaved tree planting along the southern border of the field will improve connectivity by connecting existing tree lines within the WTW to the west to existing hedgerows in the east. The creation of this tree line would provide opportunities for foraging and/or commuting bats, birds, badger and other mammals. The site is also located within two NRW Priority Ecological Network sites for semi-improved natural grassland and native woodland (Welsh Government, 2026). The proposed woodland planting and grassland enhancements will contribute to the larger ecological network of these habitat types, within the wider area. The habitats will provide 'stepping-stones' of suitable habitat in the wider landscape.
Adaptability (to change)	Management of the lowland dry acid grassland will contribute to the retention of this Section 7 Priority Habitat type, whilst increasing the diversity of habitat types present will also improve the sites adaptability in the long-term, providing variation in the opportunities present for a range of species. Increasing tree canopy cover will improve carbon storage and heat retention at the site, improving the long-term adaptability of the site.

Source: Mott MacDonald Bentley, 2026

On the basis that the above mitigation, compensation and enhancement measures are implemented, the Proposed Development will deliver a net gain for biodiversity.

4 GI Functions Delivered

The GI proposals contribute to multiple ecosystem service themes including:

- Biodiversity – a net benefit for biodiversity will be achieved through habitat creation, improving connectivity and reducing light spill.
- Climate resilience – carbon storage, shading, soil stabilisation, water attenuation
- Ecosystem resilience – supporting ecological networks and ancient woodland interfaces

5 Long-Term Management and Monitoring

A Landscape and Ecology Management Plan (LEMP) has been produced to ensure the long-term success of the proposed GI. The plan sets out:

- Maintenance of new woodland and hedgerows
- Pond management and monitoring
- Monitoring of bird and bat boxes
- Grassland management to maintain species richness
- Inspection and replacement of failed planting

The green infrastructure features and assets will be maintained for an initial five years and then subsequently be monitored for a further twenty-five years.

Refer to the following landscape and Net Benefit for Biodiversity (NBB) drawings for existing and proposed landscape design:

- Cefn Drysgoed Landscape Proposals Plan – B17545-123532-14-ZZ-DR-NA-EI1219
- Cefn Drysgoed Landscape and Ecology Management Plan – B17545-123532-14-XX-PR-NA-EI0085
- Cefn Drysgoed Landscape and Visual Impact Assessment – B17545-123532-14-XX-RP-NA-EI0089
- Ecological Impact Assessment (EclA) and associated Enhancement Plan - B17545-123532-14-XX-AS-NA-EI0083

The Cefn Drysgoed Landscape and Ecology Management Plan (LEMP) includes a structure for the long-term monitoring of the ecological enhancement area for a period of thirty years. All enhancements will be monitored in years one, two and three post-enhancement, to ensure successful implementation i.e. to ensure planted trees successfully establish. Where, needed, corrective actions will be undertaken to ensure the successful enhancement of the area i.e. additional tree planting will be undertaken where saplings fail, or grassland management will be modified until the target species diversity is achieved. Following which, the area will be monitored in five-year intervals until the period of thirty years is reached (i.e. years five, ten, fifteen, twenty, twenty-five and thirty).