

Proposed Development at Land at Tyn-y-Caeau, Margam

Green Infrastructure Statement

14/03/25



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Issue date	14/03/25
Status	Final
Revision	-
Author	DT/AT
Checked by	MFx
Reference	2335_250130_GI Statement_Margam

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Contents

1. Introduction and Background	1
2. Policy and Legislative Context	2
2.1. Legislation	2
2.2. National and Local Policy	3
2.3. Frameworks, Approaches, and Best Practice Guidance	7
3. Site Baselines	11
3.1. Ecological Baseline Summary	12
3.2. Landscape GI Baseline Summary	13
3.3. Arboricultural GI Baseline Summary	15
3.4. SuDS GI Baseline Summary	15
4. Proposed Scheme of Development	15
5. Assessment	27
5.1. Neath Port Talbot Local Development Plan and SPG	29
5.2. Legislative and policy consideration	29
6. Conclusion	30

1. Introduction and Background

This Green Infrastructure (GI) Statement is prepared by The Urbanists Ltd, on behalf of Western Bio-Energy. It accompanies the full planning application for the proposed erection of a data centre, supporting infrastructure and associated landscaping at Land at Tyn-y-Caeau, Margam.

The purpose of a GI Statement ('the Statement') is to demonstrate how GI has been incorporated to provide a positive multi-functional outcome, which is appropriate to the site in question, and must also demonstrate how the Step-wise approach has been applied to ecological considerations.

This statement will illustrate how GI has been effectively considered throughout the design of the scheme, considering 'processes', 'appropriateness' and 'outcomes'. As required by the relevant policy, this will be *"proportionate to the scale and nature of the development proposed"*.

Planning Policy Wales Edition 12 explains the relevant legislative and national planning policy context for GI Statements. Local planning policy and guidance for Neath Port Talbot provides a specific GI Assessment by way of the Biodiversity and Geodiversity Supplementary Planning Guidance (SPG) (May 2018). Other local policies and SPG are also relevant to GI, which provide information on the key outcomes expected from GI, will also be considered.

The key outcomes of the GI considerations are to be reviewed within the context of the following ecosystem concepts: biodiversity value, ecosystem resilience, and ecosystem services.

As PPW Edition 12 sets out:

"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."

The Statement is informed by the other reports, statements, and plans which accompany this planning application, including:

- Ecological Appraisal
- Planning, Design and Access Statement
- Arboricultural Impact Assessment
- Proposed Landscape Strategy
- Drainage Strategy

2. Policy and Legislative Context

This section sets out the key legislative, planning policy and guidance which inform the requirements of, and the approach to, Green Infrastructure Statements.

2.1. Legislation

2.1.1. Environment (Wales) Act 2016

The Act introduced an enhanced duty for public authorities in the exercise of their functions relating to the biodiversity and resilience of ecosystems (referred to as the section 6 duty).

Section 6 sets out the biodiversity and resilience of ecosystems duty of all public authorities in Wales. This requires public authorities to promote resilience of ecosystems, through seeking to maintain and enhance biodiversity in exercising their functions, while encouraging others to do the same. Section 7 (Part 1) identifies species and habitats of 'principal importance' for the purpose of maintaining and enhancing biodiversity.

2.2. National and Local Policy

2.2.1. Planning Policy Wales, Edition 12

Planning Policy Wales (PPW) is the principal planning policy document of the Welsh Government and informs all planning decisions and appeals. The current version of which is PPW Edition 12.

Chapter 6 of PPW 12 explains that a GI Statement should be submitted with all planning applications, and also explains the general standards that any statement should seek to meet. It explains that GI comprises the:

“network of natural and semi-natural features, green spaces, rivers and lakes that intersperse and connect places...”

“...At the landscape scale green infrastructure can comprise entire ecosystems such as wetlands, waterways, peatlands and mountain ranges or be connected networks of mosaic habitats, including grasslands. At a local scale, it might comprise parks, fields, ponds, natural green spaces, public rights of way, allotments, cemeteries and gardens or may be designed or managed features such as sustainable drainage systems. At smaller scales, individual urban interventions such as street trees, hedgerows, roadside verges, and green roofs/walls can all contribute to green infrastructure networks” (par.6.2.1).

It further advises that:

“proposals should be informed by the priorities identified in green infrastructure assessments and locally based planning guidance” (par.6.2.5).

It also sets out how proposed development should be assessed within, or potentially impacting upon, designated sites, including non-statutory designated sites. It introduces the ‘Step-wise approach’ which is expected to be applied to such consideration and therefore should be evidenced in any GI statement. This approach regards the

resilience of ecosystems (ER) and therefore their ability to continue to deliver value from GI, when under pressure or differing demand.

It explains that, in terms of protection for non-statutory designated sites, which includes Site of Nature Conservation Interest (SINCs), development can be appropriate where adherence to the Step-wise approach is demonstrated (including a net benefit for biodiversity) and there is no reduction in overall conservation value of the designated area or feature.

The PPW Chapter 6 update also covers trees, woodland, and hedgerows, and sets out the expectations to retain and protect such assets, where they are capable of making a significant contribution to an area. Where loss occurs, replacement will be required in line with the standards and ratios set out, and any permanent removal is only appropriate where there would be significant and clearly defined public benefit. Compensatory planting is required to be proportionate to the proposed loss as identified through an assessment of green infrastructure value by way of three specific aspects of biodiversity, landscape (amenity) and carbon capture values.

2.2.2. Future Wales: The National Plan 2040

Future Wales (FW) - The National Plan 2040 was adopted in February 2021 as the national development framework (NDF) setting the direction of development in Wales to 2040. The NDF provides a strategy to address key national priorities through the planning system, including developing a vibrant economy, developing strong ecosystems, achieving decarbonisation and climate resilience and improving the health and wellbeing of communities.

Policy 9 of FW focuses on 'Resilient Ecological Networks and Green Infrastructure', and sets out that planning authorities should identify areas of importance and opportunities for Green Infrastructure safeguarding and enhancement.

Given that FW strategy and national priorities can be in part addressed through Green Infrastructure, any GI Statement would be expected to align with those and support the delivery of it, where possible.

2.2.3. Technical Advice Note 5 - Nature Conservation and Planning (1996)

TAN5 provides national guidance on how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. The guidance indicates that biodiversity conservation and enhancement is an integral part of planning for sustainable development. The guidance advocates a collaborative approach where LPAs, developers and key stakeholders in conservation should work together to deliver sustainable development.

2.2.4. Neath Port Talbot CBC Local Development Plan 2011 - 2026 (Adopted January 2016)

Local Development Plan policies and Supplementary Planning Guidance (SPG's) considered as potentially relevant to the proposed development are the following:

Local Development Plan Policies

SP1 Climate Change

This policy sets out the measures that should be implemented in order for development proposals to address the causes and consequences of climate change.

SP10 Open Space

Provision will be made to ensure that all residents have access to adequate open space by ensuring that new development addresses local needs and by retaining and protecting existing open space.

SP15 Biodiversity and Geodiversity

Important habitats, species and sites of geological interest will be protected, conserved, enhanced and managed through the measures set out in the policy, such as the identification of SaCs, Ramsar Sites, SSSIs and NNRs. As well as the identification and protection of sites of regional and local importance and natural heritage features.

SP16 Environmental Protection

Air, water and ground quality and the environment generally will be protected and where possible will be protected and improved, where feasible, by ensuring that proposals have no significant adverse effects, giving preference to the development of brownfield sites over greenfield and ensuring that the number of people exposed to significant levels of pollution is not increased by developments.

OS1 Open Space Provision

Where there is quantitative deficiency in outdoor sports, children's play, informal space or allotments, provision will be sought in conjunction with all new residential developments of three or more dwellings based on the standards set out in this policy.

OS2 Protection of Existing Open Space

Any proposal which would result in the loss of an existing area of open space will only be permitted where it can be demonstrated that the open space is no longer needed, there is no shortfall of provision and the site would not be suitable to provide an alternative type of open space.

EN2 Special Landscape Areas

In order to protect areas of high landscape quality, the Special Landscape Areas highlighted in this policy are designated and development within them will only be permitted where it is demonstrated that there will be no significant adverse impacts on the features and characteristics of it.

EN3 Green Wedges

Green Wedges identified in this policy will be protected, relating to maintaining certain green and open areas between urban areas and settlements.

EN6 Important Biodiversity and Geodiversity Sites)

Development proposals that would affect Regionally Important Geodiversity Sites (RIGS), Local Nature Reserves (LNRs), Sites of Interest for Nature Conservation (SINCs), or sites supporting Local Biodiversity Action Plan (LBAP) or S42 habitats will only be permitted if they meet the criteria set out in this policy.

EN7 Important Natural Features

Development proposals that would adversely affect ecologically or visually important natural features will only be permitted where a full account has been taken of the features or the biodiversity value and role has been taken into account.

EN8 Pollution and Land Stability

Proposals which would be likely to have an unacceptable adverse affect on health, biodiversity or local amenity or would expose people to unacceptable risk due to air, noise, water and/or light pollution, contamination and/or land instability will not be permitted under this policy.

Supplementary Planning Guidance

Open Space and Greenspace (July 2017)

This Supplementary Planning Guidance provides information in respect of open space provision in Neath Port Talbot and sets out the relevant matters that will need to be taken into consideration when developments are being planned. The provision of open space gives the opportunity for more active lifestyles and can therefore play an integral role in improving the health and wellbeing of residents.

Biodiversity and Geodiversity (May 2018)

This supplementary planning guidance provides information and guidance setting out the expectations on all development proposals to protect, conserve, enhance and manage important habitats, species and sites of geological interest. The focus is on the full range of biodiversity and geodiversity features and interests within Neath Port Talbot and sets out the measures that will be taken through the planning system to meet the relevant objectives set out in the Local Development Plan.

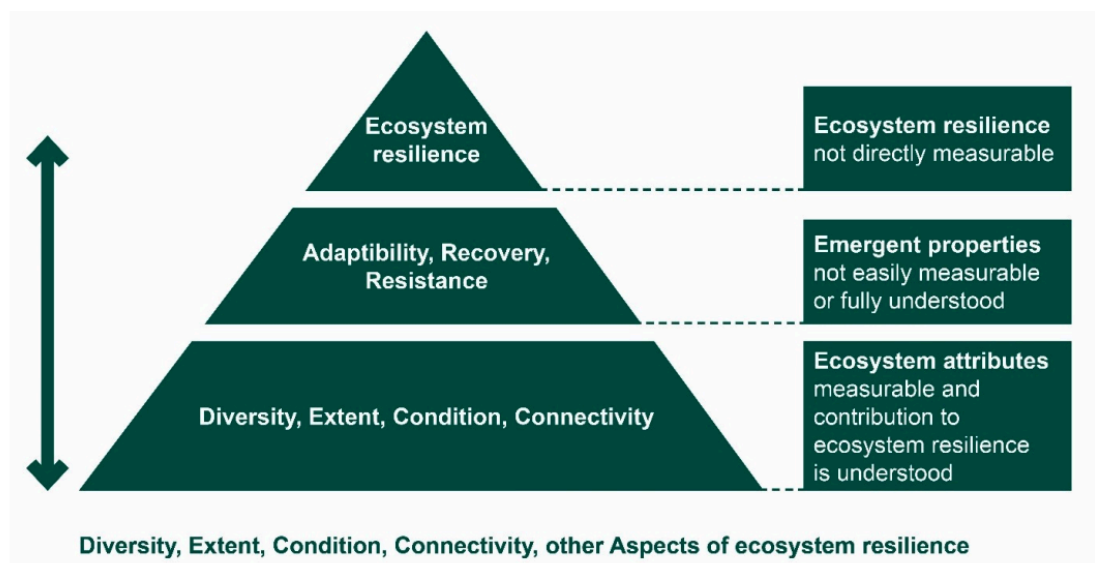
2.3. Frameworks, Approaches, and Best Practice Guidance

2.3.1. DECCA Framework and Ecosystem Resilience

This DECCA framework (see Figure 3 below) sets out 5 key considerations of habitats and species which lead to Ecosystem Resilience (ER). The first four are the attributes of

Diversity, Extent, Condition and Connectivity of species (genetics and populations) and/or habitats. There is also the fifth combined aspect of Adaptability, recovery and resistance, which is an emergent combined property resulting from the other four attributes (see Figure 1 below), and which together (DECC & A) decide the level of ER.

Figure 1: Extract from Natural Resource Wales - *Ecosystem Resilience in a Nutshell 1: What is ecosystem resilience?*¹



ER is not itself directly measurable because of the extremely large number of influencing factors. The DECCA framework is a useful 'proxy method', providing a feasible and viable assessment of ER, using just a few measurable attributes, to enable the approximate consideration of ER more easily; so it may be used in practice.

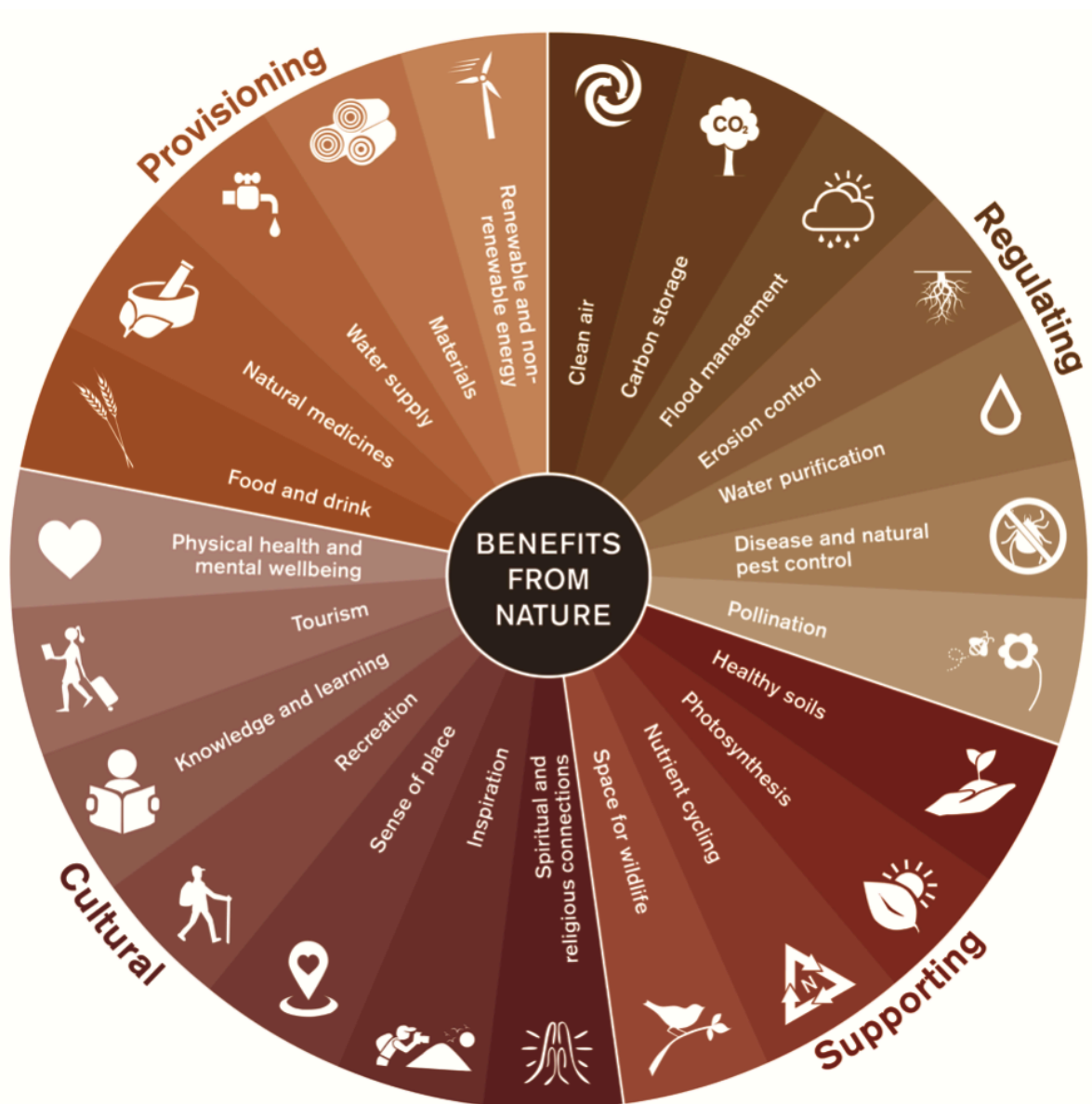
2.3.2. Ecosystem Services Framework

Ecosystem Services (ES) is a framework which can be utilised as an effective means by which to understand the flow of benefits from Green Infrastructure to humans, and therefore more directly consider what is valuable to people and communities. They add a human layer to the understanding of the multi-functionality of GI, which allows a greater consideration of how this can be maximised and for who.

¹<https://cdn.cyfoethnaturiol.cymru/media/696279/ecosystem-resilience-in-a-nutshell-1-what-is-ecosystem-resilience.pdf>

We experience ES as Cultural, Regulating, Provisioning, and Supporting services; as a common, and widely accepted, standard of division (see Figure 4 below). Cultural services are non-material benefits to society that help deliver cultural advancement. Regulating services are those that help moderate natural phenomena to the benefit of people. Provisioning services are those that deliver a material benefit to people, via the extraction of resources. Finally, Supporting services are those that ensure the continued production and maintenance of those other services; these can be thought of as those services which deliver ER.

Figure 2: Ecosystem Services (source: Nature Scot)



2.3.3. Biodiversity, Ecosystems, Ecosystem Resilience, and Ecosystem Services

As the Natural Resource Wales 'State of Natural Resources Report (SoNRR)'² sets out, ER is important for the sustainability of ES. Both concepts are inherently linked to the structure of an ecosystem (its 'Processes' and resultant 'Functions'). ER being an important emergent property of an ecosystem's physical and biological structure, and ES being a resultant beneficial outcome for people.

Ecosystems are fundamentally formed of biotic (animals and plants, etc.) and abiotic components (soil, rock, rivers, climate, etc.). Both of these influence the processes and functions of ecosystems, and these in turn influence resultant ER and realised ES benefits. The biotic-diversity (biodiversity) of a single or multiple habitat in an ecosystem, is largely more fragile (less resilient) and therefore at risk of development impacts than the abiotic components; although abiotic components are also important, and can also be at risk.

Under the Environment (Wales) Act, public bodies should seek to maintain and enhance biodiversity and the resilience of ecosystems. Multifunctional GI is set out as a means to maximise benefits from those aims, and therefore ES is additionally important. Within the Planning Policy Wales Ed. 12 Chapter 6 content, the specifics of a GI approach are further prescribed, and the components of a nature-based approach are established. Together these aims, considerations of frameworks, and requirements of policy contribute to a need to deliver good-quality design that incorporates GI.

2.3.4. Step-wise approach

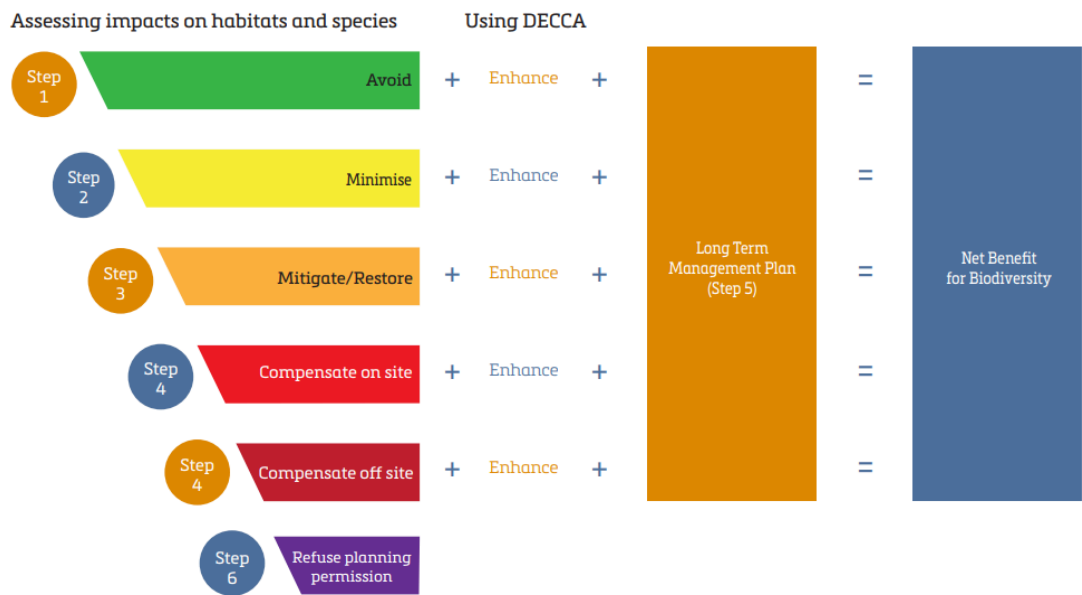
PPW Ed. 12 Chapter 6 requires the Step-wise approach to be demonstrated within proposed development designs. This approach sets out the procedure of initially following the 'Mitigation hierarchy' stages, to sequentially (as required): avoid, minimise, or mitigate/restore impact to habitats and species, or compensate on-site and as a last resort compensate off-site. At each of these stages, a proportional enhancement must be proposed that demonstrates the DECC[A] attributes. A long-term management strategy is additionally required, that would ensure those measures proposed are

² <https://naturalresources.wales/media/679405/chapter-4-resilience-final-for-publication.pdf>

deliverable; and would actually result in the level of Net Benefit for Biodiversity (NBB) and ER attributes that are described; as well as any resultant ES benefits gained.

Should the Mitigation hierarchy not be possible to follow (i.e. no stages of the hierarchy are possible) then planning permission should be refused. Should suitable enhancements relative to each stage of the hierarchy, and/or no suitable long-term management plan be possible, then a NBB is consequently unlikely to be possible and planning permission is, again, likely to be refused.

Figure 3: Step-Wise Approach - Extract from PPW Chapter 6.



3. Site Baselines

This section provides a summary of the existing conditions of the proposed development site and wider relevant context, based on survey efforts and desk study. This regards habitats and species, Ecological and GI features, and their varying values and spatial scales (site importance up to larger areas importance). It also considers other information available, and summarises their influence on the design and overall consideration in later sections of this statement.

3.1. Ecological Baseline Summary

An accompanying Ecological Appraisal and Impact Assessment has considered the proposed development site's existing ecological context, the potential for supporting any protected or otherwise important species, potential connectivity with the wider landscape and potential connections to designated sites, and the proposed development scheme in reflection of those aspects.

3.1.1. Site Appraisal and Survey

The site conditions at the time of initial survey are considered the baseline by which any impacts of proposed development changes are assessed. The site is located immediately adjacent to the A48 and is surrounded by a mixture of industrial processing plants; agricultural pasture and woodland. The site is of a sloped nature and consists of species rich grassland. The site comprises a former dwelling and outbuildings, within a single parcel of grassland.

The site is sheltered and well screened with mature and semi-mature tree canopies to the North, East and Western boundaries. Much of the site consists of semi-improved neutral grassland, which appears to be managed by mowing, with boundaries comprising hedgerows and treelines. Some areas of scrub, bare ground, and some scattered trees were also present. Invasive species including Japanese knotweed (*Fallopia japonica*), winter heliotrope (*Petasites fragrans*), montbretia (*Crocasmia*), buddleia (*Buddleja davidii*) and bamboo (*Bambusa vulgaris*) were all identified on site. Habitats were assessed as variably of negligible ecological importance to of local ecological importance only.

3.1.2. Protected Species

It is noted that the site could have potential to support a range of birds, invertebrates, amphibians, badger, dormouse, and other mammals; although not likely and these be of negligible ecological importance for the site.

Initial surveys for bats in 2020 indicated that there were roosting bats in the main dwelling, but not the annexe and outbuildings. Updated surveys in 2023 reconfirmed those same findings. The main dwelling is being used as an occasional feeding perch for lesser horseshoe bat (*Rhinolophus hipposideros*) and a day roost for small numbers of common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeu*).

A Preliminary Bat Roost Assessment (PBRA) survey was further carried out in mid-September 2024 of the trees within the site and all buildings. The need for this update was triggered by revisions to guidance since the last site surveys for bats. Two trees are currently known to have the potential to support roosting bats, as a result of this survey. Subsequently, storm damage to the site requires the further revised assessment of trees for roosting potential, which is scheduled to occur in 2025 but has not yet taken place.

Further dusk emergence bat surveys of the main dwelling are also recommended to be undertaken in 2025 to inform a protected species licence application.

Activity surveys were carried out on the adjacent land in 2021, and recorded a number of bats including common, soprano, and nathusius pipistrelle, noctule, serotine, lesser horseshoe, and myotis species bats. This assemblage is considered to be of county scale ecological importance, and suitable habitats should remain unimpacted. While not specific to the site, the habitats are considered similar, and this assemblage should be assumed to be present within the site too.

Reptile surveys undertaken in May and June 2022 confirmed the site supports a small population of slow worm (*Anguis fragilis*) and common lizard (*Zootoca vivipara*). The site is considered to be of local ecological importance for this species.

3.2. Landscape GI Baseline Summary

The landscape value of the site has been considered in the Design and Access statement, which illustrates the proposed scheme's design development. The site is covered by the Neath Port Talbot Landscape Assessment (2004). This places the site

within Landscape Character Area (LCA) 1: Margam Marsh. A number of Public Rights of Way (PRoW) pass through the study area, including the Wales Coast Path National Trail of which passes the eastern boundary of the Site. A Landscape Visual Appraisal has been instructed and included as part of this application. The initial scoping report identifies that the site itself is a candidate site for employment use under the emerging Replacement Local Development Plan (RLDP) 2023 - 2038. There are no national landscape designations such as National Landscapes or National Parks within 1.5km of the site.

Figure 4: Extract of Landscape GI Opportunities and Constraints Mapping



The Site is sheltered and well screened, with mature and semi-mature tree canopy to the West, North and Eastern boundaries. Much of the site consists of natural habitats, with the built forms forming a relatively small area, and with little impact on the wider landscape in comparison to the very characteristic tree lines and hedgerows which characterise the site boundaries and wider areas.

3.3. Arboricultural GI Baseline Summary

The Arboricultural survey identifies three hedgerows, two small groups and 56 individual trees on site. Only one tree is classed as category A, eleven are category B, thirty six are category C and thirteen trees have been identified as category U, and will require removal due to their health and condition, regardless of development. Three of the category U trees fall within the development area and will be removed and replaced with one tree replacement per tree removed. The other category U trees are located within the northern boundary. As well as these five category B & C trees also fall within the development area and are to be removed, this will require fifteen replacement trees on site as policy requires a replacement ratio of three to one.

3.4. SuDS GI Baseline Summary

The site is largely open fields comprising grassland with natural drainage by infiltration, with overland flow to nearby existing ditches in saturated ground conditions.

4. Proposed Scheme of Development

The proposed scheme is for the delivery of a data centre. The existing nearby biomass power-station will provide up to 12 MW of power via a private wire to the data centre, with a back-up connection to the national grid, which could provide up to 15.8 MW. Of the 12 MW, c. 7.5MW usable power/IT load would be achieved, based on a cloud based model, as opposed to an AI based model of provision.

The data centre would consist of the following:

- 2 Data Halls - 3.75 MW per hall
- IT space for 24 cabinets per row
- Power Infrastructure 5+1 block redundant - modular solution for space efficiency
- Ancillary Space for deliveries and storage
- Occupancy - Authorised personnel only for maintenance and security purposes on the Power Infrastructure area, IT space and Ancillary Space.
- Roof level to accommodate AHUs (Air Handling Unit) and Buffer Vessels

- Gantry level to accommodate chillers
- Substation to be designed by others and to be accommodated within the site boundary.

New landscape and ecological enhancements form a large part of the proposal. Those elements are integrated with the new buildings, pathways, and associated service areas.

Below is a consideration of the proposed scheme from the differing specialist and framework aspects; required to illustrate compliance with the Step-wise approach, demonstrate multifunctionality, and review the specialist considerations to ensure that best practice is proposed.

4.1. Step-Wise Approach summary

The following is a summary, in relation to the proposed habitats post-development and the opportunities the proposed development presents for species:

- a) the proposed scheme's Mitigation - avoidance, minimisation, mitigation or replacement, and compensation off or on site;
- b) enhancement - by way of Diversity, Extent, Condition, or Connectivity, and resultant Attributes of adaptability, resilience, and/or resistance to pressures;
- c) proposed long-term management principles to secure the above benefits; and
- d) multifunctionality of the above, with regard to the Ecosystems Services the proposal is considered to deliver.

This is followed by sections providing greater detail and analysis to support this summary. Those following sections are based on the specialist areas of consideration, to enable a comparison against the baseline conditions and the Step-wise approach be illustrated in more detail.

4.1.1. Mitigation Hierarchy Summary

Avoidance	Impacts to the existing areas of most valuable GI features are mostly avoided by way of retention of the majority of trees within the site, and through the retention of the tree lines and hedgerows bounding the site, ensuring that connectivity remains.
Minimisation	Where possible the loss of trees has been minimised, as has the losses of existing opportunities for species and in particular bats commuting and potential for roosting.
Mitigation	The strategy is to retain the grassland as much as possible, enhancing what remains with more diverse species, through additional sowing and improved management (in most areas), to provide an optimum habitat for reptiles. In combination with additional scrub planting, the additional tree planting and reinforced hedgerows around the site perimeter and in the south-western corner. When combined with other interventions proposed, such as log piles, this would further reinforce the existing green corridors and on-site retained habitat. This would mitigate the effects of the proposed grassland habitat loss, including with regard to reptile species reliant on these. In addition, the removal of invasive species from site would, similar to improved management, create an improvement of existing habitats; as well as safeguard the future of new / improved habitats scale of opportunities and benefits.
Compensation on / off site	The loss of some trees and amenity areas is more than compensated for by new planting of a number of trees (a 3:1 ratio as/ where required), and the new replacement amenity or more naturalistic habitat to replace those lost will more than compensate for the impact of the proposals. The loss of grassland would be offset in part by the introduction of new diverse green walls, which would provide improved diversity of habitats and floral species, while offering some of the same benefits (e.g. for invertebrates and bats which forage these). The new or enhanced habitats elsewhere on site would more than compensate the lost extent of opportunities for reptiles, by improved quality of opportunities. No off-site compensation is required.

4.1.2. DECCA Enhancements Summary

Diversity	The new range of diversity between differing habitat types (by increased number of different types within the site), is added to by the diversity within those new and existing habitats with a greater range of floral species proposed (by increased density or otherwise better management / creation of suitability). Many of these are flowering species, or otherwise important for providing features important to known or potentially present wildlife. An increased diversity in the features within the site, including green walls, a small area of green roof, bio retention areas for drainage, and the enhancement of existing habitats to improve their species diversity (through sowing, planting, better management or removal of invasives) opens up a large diversity of opportunities. These are particularly focused on benefits for reptiles and bats which have been identified within the site. Other aerial species, such as a range of birds, and invertebrates will also find benefit from the scheme and the diversity of these may increase as a result of the proposal.
Extent	The extent of hedgerow habitat will increase, as will the area of good condition woodland understorey and grassland, but at the expense of a loss of a greater extent of poorer condition habitats. This includes new green walls and roof which directly replace the extent, or mimic a horizontal extent vertically, of areas of green habitats (grassland) lost to the proposed building.
Condition	New planting, improved or (new) wildlife friendly management, and the removal of invasives would all help improve the condition of existing and new habitats. New habitats have been chosen for varying wildlife benefits, but also the specific improvement of conditions for protected species known from the site. Key receptor bat and reptile species, and others potentially present would benefit from the improvement in the condition of suitable habitats and opportunities (foraging, roosting / resting, commuting / dispersing through the site). The overall condition for most retained / enhanced habitats has therefore been maximised as appropriate, and new habitats better or similar to the habitats they replace. Due to the operational requirements of the proposal, some ecologically optimal management or habitats are not possible, but the area of these restrictions has been minimised as much as possible, and good condition habitats therefore maximised.

Connectivity	The site already connected well to the immediate wider area, and this quality has been retained. While not increasing the opportunities for movement, the quality of them has been increased. Tree and hedgerow planting around the site perimeter, and other complementary habitats centrally, concentrates the connectivity benefits to corridors for wildlife movement around the developed areas of the site. The proposed development has made sure to not negatively impact these, and to enhance them where possible. New tree planting across the site would assist with that enhancement, presenting a widening of the suitability of existing commuting opportunities for bats. The proposed habitats at site would offer an improved opportunity for species to use the site as a stepping stone between the green fields and SINC to the west, and the natural and historic landscapes beyond the M4 to the east (for more mobile or aerial species).
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4.1.3. Long-term Management Summary

PM1 Enhanced Grassland	To allow flowering and the setting of seed - No mowing or other sward management between April and the end of flowering (approximately early-late August), except hand-pull of any over dominant 'weed' or sown species. To ensure no 'weed' species become established, and no grasses become dominant - In other Autumn and Winter months, mowing of the sward to a height of approximately 30mm, as required. Any woody species present should be cut and spot-treated with a systemic herbicide (Glyphosate, or similar) only. To ensure that the species present can set their seed for the next year - The arisings of the first cut post-flowering should ideally be left in place for several days, before removal.
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	To ensure that soil conditions remain suitable - All arisings should raked off, and be removed from the area of cuts, to ensure low fertility soil remains. These arisings could be piled within woodland understorey areas, as habitats piles suitable for sheltering reptiles.
PM2 Bio Retention Mix - wetland meadow	Management as necessary to ensure a good diversity and condition, including the maintenance of habitat features to provide other drainage functions. This management supersedes other competing needs. Ideally, for biodiversity, management could comprise management in line with that for PM1 above. It may be appropriate for scalping of accumulated soils biennially or over a longer period, with only 50% of areas being removed in any one year; to preserve the function of these areas, while preserving the seedbank and diversity of species.
PM3 Wildflower mix	In the first year, manage the area in line with supplier's guidance on establishing the seed mix. In all other years: ○ To allow flowering and the setting of seed - No mowing or other sward management between April and the end of flowering (approximately early-late August), except hand-pull of any over dominant 'weed' or sown species. ○ To ensure no 'weed' species become established, and no grasses become dominant - In other Autumn and Winter months, mowing the sward to a height of approximately 30mm, as required. Any woody species present should be cut and spot-treated with a systemic herbicide (Glyphosate, or similar) only. ○ To ensure that the species present can set their seed for the next year - The arisings of the first cut post-flowering should ideally be left in place for several days, before removal. ○ To ensure that soil conditions remain suitable - All arisings should raked off, and be removed from the area of cuts, to ensure low fertility soil remains.

PM4 Species Rich Shrubs	Annual Pruning of shrubby specimens or scrubby areas, as necessary. Annual removal of dead vegetation as necessary, and selective removal or other management (e.g. aggressive pruning, selective use of systemic herbicide) of any species which become overdominant or spreading.
PM5 Existing Native Hedgerow Enhancements	As PM4 above, with regard to the new or existing planting, to secure the establishment and health of new species for the first 5 years. Thereafter, the pruning of the hedgerow as required, outside bird nesting season. Ideally, the periodic laying of hedgerow, or otherwise dead-hedging any removed material, to create a variable structure.
PM6 New Native Hedgerow	As PM5 above.
PM7 Woodland Edge understory	To gain maximum benefit, the thinning or reduction of tree canopy spread, to allow more variable light levels onto this new planting. The annual or biennial maintenance of these areas such that no one species becomes dominant, and the removal of specimens as required to sustain the diversity. As required, the thinning of tree canopy above, as appropriate for the continued health of those trees as well as deliver more variability in ground light levels.
PM8 Green Roof	The maintenance in accordance with manufacturers guidance, and in a manner that maximises biodiversity value.
PM9 Living Walls	The maintenance in accordance with manufacturers guidance, and in a manner that maximises biodiversity value.

New Trees	The care and pruning of trees as required, with the replacement of specimens that fail to become established, or which already exist and are prominent or important to ecology in the site and die. To ensure no disturbance or harm to nesting birds - all works are to take place outside the bird nesting season, or under suitable ecological supervision and where its established no active nests are present. To ensure no disturbance or harm to bats - all works to take place only on limbs or trees without suitable features for roosting bats. Where these are present or potentially present, suitable ecological advice should be sought before any works.
Bat and Bird Boxes	For bird boxes - the annual cleaning of these, outside of the nesting bird season (approximately March to September). For bat and bird boxes - the maintenance of these or replacement with a similar alternative as necessary.

Figure 6: Extract of Planting Strategy



4.1.4. Ecosystem Services Summary

Cultural	Landscaped areas that have the potential to be used as accessible natural greenspace by site users, as well as the incorporation of features of wildlife benefit bring people closer to nature. There are extensive areas where such multi-functional spaces are present within the site, and other areas where naturalistic or wildlife friendly plating is adjacent to accessible areas.
Regulating	A green and diversely planted infiltration basin, alongside other measures will provide surface water run-off control. The green roof and walls would also contribute to the SuDS provision, and additionally create a significant regulation of the building temperature below, by providing shade, insulation, and evapotranspiration cooling effects. Trees and other vegetation around the site would also contribute to both the management of rainfall in general (interception slowing, and filtration), and provide evapotranspiration cooling effects where present. Trees would provide shade, and further cool urban areas, especially where that shade would fall on hardstanding or buildings. The above would all contribute to climate change resilience of the site, and development. New tree planting, and other vegetation, would sequester and store carbon in both their masses and/or in soils. Given the areas where good condition habitats, with permanent ground covering species, are to become established then a significant increase in regulating services associated with soil, water, and carbon retention / storage regulation would be likely.

Supporting	The significant areas of new ground flora, and other vegetation, would assist in the formation of improved top soils on existing or newly uncovered / made ground and help secure improved nutrient cycling within the site. All landscaping and proposed features for wildlife would provide a habitat benefit for fauna over the existing baseline condition of the site. The diversity of differing habitats, types of planting, and their conditions, would all help ensure there are significant opportunities for the supporting of fauna that may require quite specific single or multiple close-by. By sustaining and enhancing hedgerow and tree features within the site, a supporting provision for opportunities of bats would be provided; helping sustain a protected species known to be present.
Provisioning	No purposeful provisioning services would be provided but, by the establishment of wildflower areas, there is the potential for this site to become a sustainable source of such seed for other areas locally.

4.2. Landscape GI Summary

The landscape strategy is detailed in the planning application accompanying Planning, Design and Access Statement, including considerations of the opportunities and constraints of the site, and wider area, and specifically the connectivity and diversity elements proposed that related to Ecosystem Resilience.

The proposed scheme includes extensive new native and diverse amenity planting, comprising a range of grassland, wetland, shrub, hedgerow and tree species. This includes those native species green wall as well as linear hedgerow and tree corridors traversing the site acting as multifunctional GI features. These are beneficial to rainfall interception, filtration and attenuation, as well as biodiversity benefits for commuting bats and other more mobile species, respectively. This ensures both Regulating and Supporting Ecosystems service enhancements are delivered. Further grassland areas

are also designed to provide multifunctional biodiversity and communal social space benefits to users of the site.

4.3. Arboricultural Summary

The vast majority of trees are to be retained, with the exception of two trees for reasons of development, located south of the existing track entrance (trees T283 and T285).

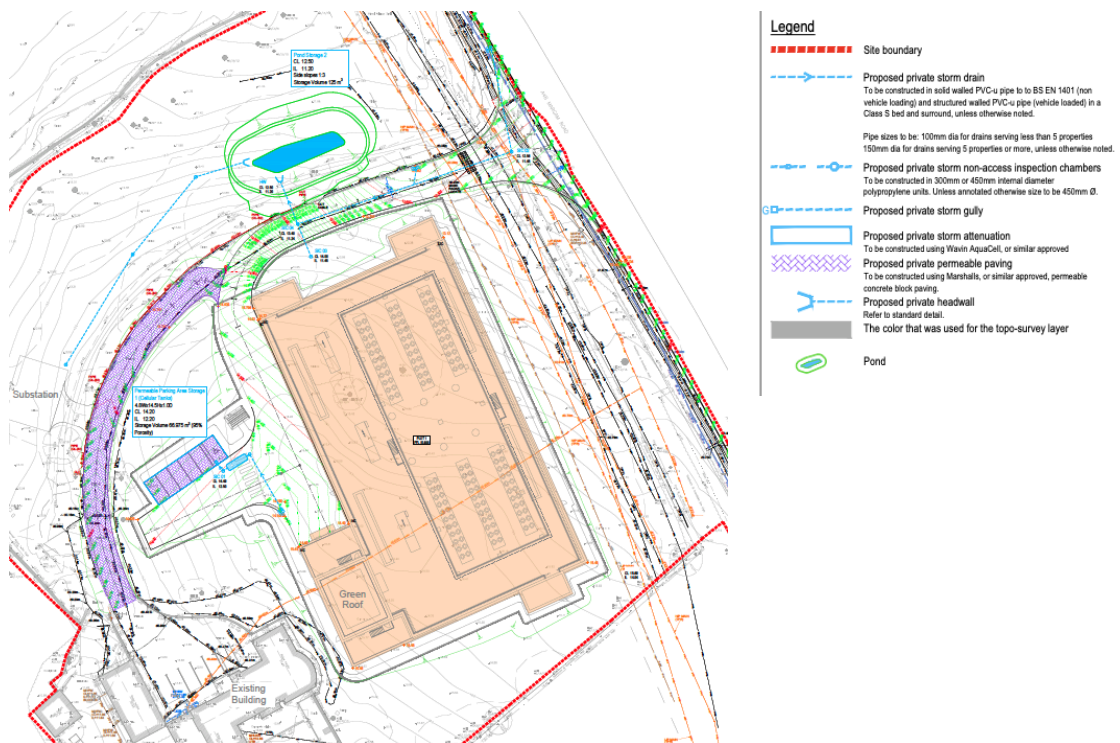
Separately, twelve trees and one small group of sycamores have been classified as U category and need to be felled, for reasons of safety and not because of the development proposed.

Compensation for the loss of trees associated with development would comprise replacement tree planting across the site, at more than 3 trees for each 1 to be removed because of development. Identified root protection areas for retained trees will be secured and made safe from development throughout any construction. Structures in Root Protection Zones will be avoided, and any unlikely construction impacts be made acceptably minimal and under the advice of a suitably qualified arboriculturist.

4.4. SuDS Summary

It is proposed that new sustainable drainage system principles comprise a mixture of attenuation and infiltration within the site, treating the site run-off. The proposed management measures include an attenuation basin, permeable paving and geocellular storage. The result would be an improved treatment and slowing of flows off the site, securing a betterment for the environment, improved safeguarding for areas downstream, and creating new ecological features in tandem.

Figure 7: Extract of Drainage Strategy



4.5. Ecology Summary and Analysis

The proposed scheme has had a high consideration for the existing assets of potential biodiversity and ecological resilience significance within the site, retaining them where possible. The scheme proposes planting and features of benefit to wildlife, of a type and scale to enhance the overall biodiversity of the site. Those enhancements also target opportunities to improve ecosystem resilience. Throughout the design process,

the Step-wise approach to ecology has been followed and ensured. This has been informed and guided by the ecological reporting accompanying the planning application.

The proposed landscaping and other features would introduce a range of higher-quality habitats by their composition and placement, than are existing. There would be an improved number of differing habitat types, and therefore diversity between them, within the site; increased diversity of species within each habitat type; and, consequential enhancement of opportunities for a larger range of fauna, and the quality for those already potentially present within the site. The addition of green roof and walls is proposed to enhance this further.

The positioning of the landscape elements has had a particularly high regard for the commuting and movements of more mobile species, especially bats. This has culminated in the reinforcement of existing green corridor boundaries of the site. New hedgerow and tree planting help ensure these corridors would be of an improved, good, condition.

New open space and green links reinforce existing trees and hedgerows and drainage features respond to site topography, being along the northern section of the site. The existing access and drive will be maintained to minimise tree loss.

The Management consideration of the step-wise approach is considered in brief, above. There is a significant contribution from the proposed scheme's new GI, producing a good level of Net Benefit for Biodiversity and Ecological Resilience enhancement. The management is considered material to those site uplifts, with regard to maintaining the benefits set out.

5. Assessment

The site's relatively limited ecological (baseline) value at present makes the adherence to the Step-wise approach's requirement more simple to satisfy. As such, the scheme has looked to provide a highly considered and significant enhancement, in response to

the relative ease of this. The Mitigation hierarchy to be considered and enhancement demonstrated at each 'stage', is demonstrated by the design journey illustrated in the Planning, Design and Access statement. This is further explored, and the multifunctional aspects of that approach illustrated, specifically in regard to the different areas of contribution, as set out above in Section 4 of this statement. The conclusion is that the proposed scheme would produce a significantly integrated enhancement of different habitats and the relative opportunities they present, and therefore a biodiversity and ecosystem resilience enhancement; while also producing some additional ecosystem service benefits which are themselves a betterment over the current site.

The accompanying Ecological Appraisal has set out a formal consideration of: the site's baseline; how the potential impacts from the proposed development have been avoided, minimised, mitigated, or compensated for; and what enhancements are proposed / are recommended for inclusion. It therefore illustrates how a net benefit for biodiversity (NBB), with increases in ER within the site and wider area, should be achieved.

The Planning, Design and Access Statement has set out the process by which the above NBB and ER have been conceived, would be achieved, and therefore the degree to which best practice has been followed and the GI multi-functionality maximised. A wider evaluation of the ES considered in design, and produced as part of the same landscape scheme, is considered in summary in this document. This usefully demonstrated the focus on NBB and ER gains, as part of the design process, and which the proposed development would achieve.

The proposed scheme is illustrated in Figure 6, which shows the large natural habitat areas to be created, and the built/semi-natural habitats specifically proposed for the development site.

Given the proposed developments' alignment with national and local policy GI requirements, the proposed development also accords with the UN Global Biodiversity Framework (2022). It meets key target areas: especially relating to reducing threats to biodiversity; but also sustains use and benefits sharing (to meet people's needs),

especially in an urban context; and utilises tools and solutions for implementation and mainstreaming an ecocentric approach to proposed development.

5.1. Neath Port Talbot Local Development Plan and SPG

Regarding the priorities of the local policies and SPG, the focus on protecting natural environments, of varying significance, is ensured throughout the proposed-development's scheme of design. Specifically these are LDP policies SP1, SP10, SP15, SP16 OS1, OS2, EN2, EN3, EN6, EN7, and EN8, as well as Open Space & Greenspace SPG and Biodiversity & Geodiversity SPG's.

5.2. Legislative and policy consideration

A suitable NBB, and ER enhancement, have been demonstrated through the application of the step-wise approach. Additionally, as part of the review of the site, and proposed design conception, suitable multi-functional benefits for both wildlife and people have also been considered by the framework of Ecosystem Services (ES). The proposed development has therefore adequately provided an enhancement of ES as part of the proposal; and adhered to good practice as part of this.

A general regard has been given as part of the design process to Section 6 duties of local authorities, and Section 7 habitats that may be near the site, and have the potential to be impacted by the proposed development.

The scheme is therefore evidenced as complying with not only the requirement of PPW Chapter 6 but also other PPW chapters and the FW national policy, Local Policy as well as relevant legislation regarding or associated with aspects of Green Infrastructure. The proposed development also accords with the statutory duties of a local planning authority, with regard to Environment (Wales) Act 2016. A planning decision can therefore be positively made with regard to these considerations.

6. Conclusion

This GI Statement is considered to be proportionate to the scale and type of development proposed, and the comprehensive scheme of overall enhancement which is proposed. The statement sets out the measured baseline, the predicted impacts from the proposal and how these are managed within the design, and examines these via the mechanism of the step-wise approach, DECCA and ES frameworks. It also shows how the scheme complies with the relevant local policy context and any other aspects of PPW 12 beyond the GI Statement requirement. The scheme is considered to be an appropriate design, regarding GI, in the context of the site and local context or nearby/adjacent habitats of importance, and wider GI networks.