Ecological Impact Assessment



Land at Tyn-y-Caeau, Margam
30th January 2025

Tyler Grange

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Contents:

Summary
Section 1: Introduction and Context 1
Section 2: Ecological Features and Evaluation 3
Section 3: Ecological Impacts, Mitigation, and Enhancement 26
Section 4: Conclusions 35

Appendices:

Appendix 1: Proposed Landscape Proposals
Appendix 2: Legislation and Planning Policy
Appendix 3: Methodology and Results

Plans:

Plan 1: Habitat Features Plan and Preliminary Bat Roost Assessment (17163/P07)

Summary

S.1. This report has been prepared by Tyler Grange Group Limited on behalf of Western Bio-Energy Limited. It sets out the findings of an Ecological Impact Assessment at Land at Tyn-y-Caeau, Margam hereinafter referred to as 'the site'. The proposals include a full planning application for a Data Centre, including associated access, car parking and landscaping.

S.2. An 'extended' Phase I survey was undertaken on the 1st August 2024 with a Preliminary Bat Roost Assessment (PBRA) undertaken on the 18th September 2024. A summary of the results are as follows:

- The site is comprised of semi-improved neutral grassland, areas of dense scrub, three buildings and hardstanding (negligible ecological importance), native broadleaved trees (local ecological importance), areas of broadleaved woodland and native hedgerows (priority habitats of local ecological importance); and
- The site contains habitats that could support amphibians, badgers, bats, birds, dormouse, invertebrates, other small mammals, and reptiles.
- The site features invasive, non-native plant species, including Japanese knotweed *Reynoutria japonica*.

S.3. In terms of protected sites, the Neath Port Talbot (NPT) Watercourse Site of Importance for Nature Conservation (SINC), the NPT Ancient Semi-Natural Woodland SINC and the Junction 38 Wetland Complex SINC all lie within 200 m of the site. Whilst no direct impacts would be expected, indirect impacts may occur in the form of pollution, light and noise disturbance. A Construction and Environmental Management Plan (CEMP) and pollution prevention measures will be required prior to works.

S.4. Habitats of negligible ecological importance to be lost to the development, such as the semi-improved neutral grassland, require no specific mitigation. Habitats of local ecological importance to be lost, such as the six individual broadleaved trees and dense scrub will be more than compensated for through replacement planting in the form of native species tree planting at a three to one ratio, hedgerow creation, and additional scrub planting and management towards the south of the site. An invasive species management plan will be required to ensure the safe removal and disposal of all Japanese knotweed specimens within the site boundary, and to prevent its spread beyond the site boundary.

S.5. Habitat is present on site that could support amphibians, badgers, bats, breeding birds, dormice, and invertebrates. It has been confirmed that the building on site supports a roost of lesser horseshoe *Rhinolophus hipposideros* and soprano pipistrelle *Pipistrellus pygmaeus* bats. As the building is scheduled to undergo refurbishment, a licence will be required from Natural Resources Wales (NRW) and mitigation will need to be approved and installed prior to the commencement of any works which could disturb the roost. Similarly, it has been confirmed that the site supports a low population of reptiles, and so a Precautionary Working Methods Statement (PWMS) will be produced and adhered to during construction works.

S.6. Species-specific enhancements recommended within this report, which include grassland enhancement and creation, native hedgerow and tree planting, green walls, living walls, log pile construction and provision of bat and bird boxes, would enhance the site for wildlife and increase the habitat diversity on site providing a range of nesting, foraging and commuting opportunities for species such as invertebrates, bats, birds and reptiles.

S.7. It is therefore concluded that should the recommendations outlined in this report be implemented, the proposed development complies with relevant policy and legislation relating to biodiversity.

Section 1: Introduction and Context

Introduction

1.1. This report has been prepared by Tyler Grange Group Limited on behalf of Western Bio-Energy Limited. It sets out the findings of an Ecological Impact Assessment at Land at Tyn-y-Caeau, Margam (OS Grid Reference: SS 7928 8642) hereinafter referred to as 'the site'. The proposals include a full planning application for a Data Centre, including associated access, car parking and landscaping.



Figure 1.1: Indicative red line boundary (© Google Aerial Imagery)

1.2. This assessment has been undertaken to inform a planning application for the development of a Data Centre, including associated access, car parking and landscaping. The site proposals are shown in **Appendix 1**.

Site Context

1.3. The site is approximately 1.67 ha in size and comprises semi-improved neutral grassland, a small central area of dense scrub and broadleaved semi-natural woodland with several buildings and associated hard standing. The borders comprise hedgerows and dense scrub with individual trees. The site is located directly west of the A48 towards Swansea and lies east of additional Western Bio-Energy facilities.

1.4. Previous surveys were undertaken by I&G Ecological Consulting Ltd between 2020 – 2023 to support a previous planning application at the site. The results of these surveys are detailed throughout this report where relevant.

Purpose

1.5. This report:

- Uses available background data and results of the field surveys to describe and evaluate the ecological features present within the likely "Zone of Influence"[1/2] (ZoI) of the proposed development;
- Describes the actual or potential ecological issues and opportunities that might arise as a result of the site's development;
- Where appropriate, makes commitments for mitigation measures for adverse effects on ecological features as well as ecological enhancements, to ensure conformity with policy and legislation listed in **Appendix 2**; and
- Can be used to inform a planning application for the site's development.

1.6. This assessment and the terminology used are consistent with published guidance[3/4]. A full methodology is set out in **Appendix 3**.

Methodology

1.7. Methods for all surveys undertaken to support this EcIA are provided in **Appendices 3** - **8**.

Quality Control

1.8. All ecologists at Tyler Grange Group Limited are members of the Chartered Institute of Ecology and Environmental Management (CIEEM) or are working towards membership, and act under the direction of members and abide by the Institute's Code of Professional Conduct[5].

[1] CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.
[2] Defined as the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries.
[3] CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester.
[4] CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.
[5] CIEEM (2022) *Code of Professional Conduct*. CIEEM, Winchester.

Section 2: Ecological Features and Evaluation

Designated Sites

2.1. The data search returned two Natura 2000 sites within 10 km of the site, and seven statutory and non-statutory designated sites within 2 km of the site. These are detailed in **Table 2.1** below.

Table 2.1. Designated Sites

Designated site	Distance and direction from site	Citation	Ecological Importance
Cefn Cribwr Grasslands Special Area of Conservation (SAC)	c. 2.9 km south	Designated for the presence of fixed coastal dunes with herbaceous vegetation, dunes with *Salix repens spp.*, humid dune slacks, hard oligo-mesotrophic waters with benthic vegetation of *Chara spp.* and Atlantic salt meadows. Species present include petalwort *Petalophyllum ralfsii* and fen orchid *Liparis loeselii*.	International
Cynffig SAC	c. 6.4 km south-east	Major UK stronghold for *Molinia caerulea – Cirsium dissectum* fen-meadows which host rare viper's-grass *Scorzonera humilis* and the nationally scarce soft-leaved sedge *Carex montana*. Also of importance for having a population of marsh fritillary butterflies *Euphydryas aurinia*.	International
Eglwys Nunydd Reservoir Site of Special Scientific Interest (SSSI)	0.63 km south	Largest sheet of freshwater within the county. Within the Margam Moors which, before being reclaimed for the Abbey Steel Works, were a notable site or wildfowl. Attracts a large number of wintering waterfowl and passage migrants including great crested grebe *Podiceps cristatus*, little grebe *Tachybaptus ruficollis*, mallard *Anas platyrhynchos*, gadwall *Anas strepera* and coot *Fulica atra* which now breed.	National
Margam Moors SSSI	1.28 km south-west	Last remaining example of coastal levels in West Glamorgan. Contains mesotrophic marsh, fen meadow and ditch communities. Species present include: flowering-rush *Butomus umbellatus*, frogbit *Hydrocharis morsus-range*, arrowhead *Sagittaria sagittifolia,* cyperus sedge *Carex pseudocyperus* and brown sedge *C. disticha*. Nationally rare beetle *Halipus mucronatus,* the dragonflu *Sympetrum sanguineum* and the water-bug *Corixa panzeri* have been found in the ditches.	National
NPT Ancient Semi-Natural Woodland Site of Importance for Nature Conservation (SINC)	100 m north-east	No citation available.	National
Neath Port Talbot (NPT) Watercourses SINC	90 m east	No citation available.	County
Junction 38 Wetland Complex SINC	170 m west	Semi-natural woodland with a wet woodland component. Contains lowland fen, purple moor-grass and rush pastures. Species present include water vole *Arvicola amphibius*, otter *Lutra lutra*, grass snake *Natrix helvetica*, common lizard *Zootoca vivipara*, reed bunting *Emberiza schoeniclus* and Cetti's warbler *Cettia cetti*.	County
Margam Country Park SINC	400 m south-east	Wood pasture and parkland with ponds and mosaic habitats (marshy grassland, woodland, scrub and neutral grassland). Comprises buildings with bat roosts. Species present include lesser horseshoe *Rhinolophus hipposideros*, greater horseshoe *Rhinolophus ferrumequinum*, barbastelle *Barbastella barbastellus*, brown hare *Lepus europaeus* and adder *Vipera berus*.	County
Eglwys Nunydd SINC	600 m south	Native woodland with areas of scrub, lowland fen, reedbeds and eutrophic standing waters. Species present include Cetti's warbler.	County

2.2. The following ancient woodland sites are found within 2km of the proposed development site: 13 Ancient Semi Natural Woodland, 10 Restored Ancient Woodland Sites, seven Plantations on Ancient Woodland Sites and six Ancient Woodland Sites of Unknown Classification. NPT Ancient Semi-Natural Woodland SINC is the nearest ancient woodland to the site, and is of national ecological importance.

Habitats and Flora

2.3. The habitats present on site are summarised below in **Table 2.2**, along with a description of the composition of the main plant species present and an assessment of their ecological importance. The location of habitats are shown on the Habitats Features Plan **17163/P07**.

Table 2.2. Habitats and Flora

Phase I Habitat	Description and Species	Ecological Importance	Photograph
B2.2 – Semi-Improved Neutral Grassland	The majority of the site comprises semi-improved neutral grassland which is subject to cutting prior to survey to a height of approximately 2 cm. The cutting is undertaken as part of a regular management regime (two annual cuts). Cuttings are present on the surface of the grassland. Species present include abundant creeping bent *Agrostis stolonifera* and Yorkshire fog *Holcus lanatus* with false oat-grass *Arrhenatherum elatius* found frequently. A range of occasionally found species included cock's-foot *Dactylis glomerata*, hogweed *Heracleum sphondylium*, red fescue *Festuca rubra*, fleabane *Pulicaria dysenterica* and creeping cinquefoil *Potentillia repens*. One rarely found species was recorded, comprising bird's-foot trefoil *Lotus corniculatus*. A separate grassland survey was undertaken by I&G Ecological Consulting in 2022 and included in a report (I&G Ecological Consulting, July 2022). The habitat survey undertaken by Tyler Grange corroborates the findings of the previous grassland survey.	The habitat features a range of common flowering plant and grass species. This habitat is common and widespread, and is considered to be of **negligible ecological importance**.	
J2.3.1. – Hedge with Trees (Native and Species-Rich)	A native hedgerow is located along the eastern boundary, it was noted to be dense with no gaps present. Ivy *Hedera helix* is abundantly found in this hedgerow with elder *Sambucus nigra* and nettle *Urtica dioica* found frequently. Occasionally found species included hawthorn *Crataegus monogyna*, *clemantis spp.*, holly *Ilex aquifolium*, ash *Fraxinus excelsior*, sycamore *Acer pseudoplatanus* and bramble *Rubus fruticosus*. Rare species include beech *Fagus sylvatica*. Japanese knotweed *Fallopia japonica*, an invasive species listed on Schedule 9 of the Wildlife and Countryside Act[6], is frequently found here in the north-western aspect (TN08 and TN10). A hedgerow with trees is located along the northern boundary with site access present at the north-western aspect. Hawthorn is abundant in the hedgerow with frequent sycamore, ivy, and bramble. Occasional species include winter heliotrope *Petasites pyrenaicus* (an invasive species), nettle, hogweed, goat willow *Salix caprea*, hazel *Corylus avellana*, and cleavers. Three species are found rarely including holly, enchanter's nightshade *Circaea lutetiana*, and pine *Pine spp*.	This habitat is a priority habitat in Section 7 of the Environment (Wales) Act 2016. This habitat is considered to be of **local ecological importance**.	

[6] https://www.wlgf.org/Schedule%209%20of%20the%20Wildlife%20and%20Countryside%20Act%201981.pdf

Phase I Habitat	Description and Species	Ecological Importance	Photograph
J2.3.2 – Hedge with Trees (Species-Poor)	A native defunct hedgerow is located at the western boundary of the site which is largely gappy. Ivy was found abundantly with frequent hawthorn. Occasionally found species included bramble, cleavers *Galium aparine*, and giant fescue *Lolium giganteum*.	This habitat is a priority habitat in Section 7 of the Environment (Wales) Act 2016. This habitat is considered to be of **local ecological importance**.	
A2.1 – Dense Scrub	Unmanaged dense scrub is located along the southern aspect of the main dwelling and the east of the garden. Bramble is found abundantly with frequently found false-oat grass, winter heliotrope, tree of heaven *Ailanthus altissima* and broad-leaved willowherb *Epilobium monatum*. Many species were occasionally found included creeping bent, garlic mustard *Alliaria petiolata*, nettle, nipplewort *Lapsana communis*, ivy, hemp agrimony *Eupatorium cannabinum*, ragwort *Jacobaea vulgaris*, cleavers, giant fescue, clemantis species, Yorkshire fog, *Rosa spp.* and great willowherb *Epilobium hirsutum*. Rarely found species include tutsan *Hypericum androsaemum*, hogweed, burdock *Arctium spp.*, wood dock *Rumex sanguineus*, and green alkanet *Pentaglottis sempervirens*. Japanese knotweed is present at the northern and southern aspects (TN38 and TN39) with a single stand of buddleja *Buddleja davidii* present (TN43). Montbretia *C. x crocosmiiflora* (a Schedule 9 invasive species) was found occasionally in the north-eastern corner (TN39 and TN44).	The dense scrub is found throughout the site and is supported by common plant species, as well as invasive species. It is limited in its extent and is considered to be of **negligible ecological importance**.	
J4 – Bare Ground	A single hardstanding access track in relatively good condition runs from the north-eastern boundary of the site towards the buildings present in the south.	This habitat is considered to be of **negligible ecological importance**.	

Phase I Habitat	Description and Species	Ecological Importance	Photograph
J3.6 - Buildings	Three buildings are present within the southern area of the site comprising the main dwelling, an annexe and a stone outbuilding.	This habitat is considered to be of **negligible ecological importance**. The potential for this habitat to support protected fauna is discussed later in **Section 2**.	 
A1.1.1 – Broadleaved Semi-Natural Woodland	A semi-mature woodland is located in the south-western corner of the site. The ground flora is dominated with ivy with goat willow found frequently. Occasionally found species included hazel, elder, yew *Taxus baccata*, enchanter's nightshade, wild cherry *Prunus avium*, apple *Malus x domestica*, tutsan, and hogweed. Japanese knotweed was present throughout this woodland (TN40 and TN45) with arrow bamboo *Pseudosasa japonica* (TN42) frequently found in the southern aspect .	This habitat is a priority habitat in Section 7 of the Environment (Wales) Act 2016. This habitat is considered to be of **local ecological importance**.	

Phase I Habitat	Description and Species	Ecological Importance	Photograph
A3.1 – Scattered Broadleaved Trees	Scattered trees are present running along the access track at the westerly aspect of the site. Ornamental acer was abundant with rare birch *Betula pendula*, sycamore, and ash. Two lines of trees were present on site. A defunct line of trees was located along the southern boundary with ivy found abundantly. Frequently found species included three mature beech, with holly, sycamore, elder, nettle, bramble, winter heliotrope, and giant fescue found occasionally. Rarely found species included garlic mustard and wood dock. The second line of trees was found alongside the western boundary hedgerow and comprised abundant sycamore with common lime *Tilia x europaea* found rarely. Japanese knotweed was found surrounding various scattered trees (TN01 and TN33).	This habitat has a variety of broadleaved species with mature trees present. As such, this habitat is considered to be of **local ecological importance**.	

Invasive Species

2.4. Several invasive non-native species were identified on site (see **17163/P07** and **Table 2.2** for indicative locations).

2.5. Japanese knotweed was found on site within the hedgerows along the northern boundary, within the semi-mature woodland within the south-eastern corner and within the unmanaged dense scrub in the northern and southern aspects. Japanese knotweed is listed under Schedule 9 of the Wildlife and Countryside Act (WCA), and as such causing this species to spread is unlawful.

2.6. Montbretia was found occasionally within the unmanaged and dense scrub. Montbretia is listed under Schedule 9 of the Wildlife and Countryside Act (WCA), and as such causing this species to spread is unlawful.

2.7. Arrow bamboo was found in the southern area of the semi-mature woodland. Arrow bamboo is listed under Schedule 9 of the Wildlife and Countryside Act (WCA), and as such causing this species to spread is unlawful.

2.8. Winter heliotrope was found in the northern boundary hedgerow. Whilst not listed as a Schedule 9 invasive species, it is a non-native species which poses a conservation threat to native biodiversity and habitats, such that further release should be regulated. This species will have a negative effect on the biodiversity of the site.

2.9. Buddleia was found within the centre of the garden area. Whilst not listed as a Schedule 9 invasive species, it is a non-native species which poses a conservation threat to native biodiversity and habitats, such that further release should be regulated. This species will have a negative effect on the biodiversity of the site.

Protected and Notable Species

2.10. The below section sets out the potential for protected species on site. Species which are considered likely absent from the site based on professional judgement, following consideration the of habitats within the site, signs of species presence at the time of survey and data search records, are not discussed.

Amphibians

2.11. The data search returned records of common frog *Rana temporaria*, common toad *Bufo bufo,* smooth newt *Lissotriton vulgaris*, palmate newt *Lissotriton helveticus* and great crested newt (GCN) *Triturus cristatus* within 2 km of the site. The nearest of these was a record of smooth newt 0.7 km east of the site from 2019. No European Protected Species (EPS) licences were returned for GCN within 2 km of the site.

2.12. The data search found no waterbodies on or within 250 m of the site, which is generally considered to be within the typical migratory range of GCN from a waterbody[7]. The terrestrial habitats on site such as the areas of grassland and scrub could offer some suitable habitat

[7] Cresswell, W. & Whitworth, R., 2004. *An assessment of the efficiency of capture techniques and the value off different habitats for the great crested newt* Triturus cristatus*: English Nature Research Report 576.* Peterborough: English Nature.

for GCN, however given the lack of aquatic habitat within the site and surrounding area, as well as the presence of dispersal barriers such as roads, the site is considered unlikely to support GCN.

2.13. As such GCN are considered **likely absent from the site and are not discussed further within the report**.

2.14. Other more mobile amphibian species such as common toad may be present in the terrestrial phase. Common toads are a priority species under The Natural Environment and Rural Communities (NERC) Act 2006[8]. It is considered any population utilising terrestrial habitats on site, such as the grassland and scrub, will also be using further habitats beyond the site boundary and not reliant on the site alone.

2.15. As such any population of amphibians, such as common toad, on site would be of **negligible ecological importance**.

Badger

2.16. The data search returned records of 16 Eurasian badger *Meles meles* within 2 km of the site. The nearest record was in 2013, 0.13 km east of the site and comprised a road mortality.

2.17. No evidence of badger was found on site during Tyler Grange surveys, nor was this reported following the previous ecological appraisal undertaken on the site (I&G Ecological Consulting, May 2020). Due to the presence of scrub, semi-mature woodland and hedgerows and the uneven nature of the site the presence of setts and foraging and commuting badgers on site cannot be ruled out completely.

2.18. Badgers are protected owing to their threat of persecution, rather than because of their conservation status. Therefore, a population of badgers which may use the site would be of **negligible ecological importance**.

Bats

2.19. The data search returned records for 15 bat species within 2 km of the site. Species included Brandt's *Myotis brandtii*, brown long-eared *Plecotus auritus*, common pipistrelle *Pipistrellus pipistrellus*, Daubenton's *Myotis daubentonii*, greater horseshoe, lesser horseshoe, Leisler's *Nyctalus leisleri*, unidentified myotis *Myotis spp.*, Nathusius's pipistrelle *Pipistrellus nathusii*, Natterer's *Myotis nattereri*, noctule *Nyctalus noctula*, serotine *Eptesicus serotinus*, soprano pipistrelle *Pipistrellus pygmaeus*, western barbastelle *Barbastella barbastellus* and whiskered *Myotis mystacinus*. The nearest of these was a record of common pipistrelle 0.2 km south of the site in 2016.

[8] Section 40 of the NERC Act puts a duty on local authorities to have regard for the conservation of species and habitats listed at Section 41, including when considering planning applications.

Preliminary Bat Roost Assessment, Ground Level Tree Assessment and PRF Aerial Inspection Survey

2.20. Two previous Preliminary Bat Roost Assessments (PBRA) were conducted by I&G Ecological Consulting Ltd[9/10] on the 30th May 2020 and 21st May 2023. Both preliminary assessments were followed by dusk emergence or dawn re-entry surveys. The 2020 surveys identified the presence of one lesser horseshoe, five soprano pipistrelles and two common pipistrelles roosting within the main dwelling, with no bats roosting within the annexe and outbuilding. An unidentified myotis species was noted foraging and commuting within the vicinity. Update surveys undertaken in 2023 confirmed the presence of one lesser horseshoe alongside a small number of soprano pipistrelles and common pipistrelles with no bats roosting within the annexe or outbuilding.

2.21. An updated Preliminary Bat Roost Assessment (PBRA), Ground Level Tree Assessment (GLTA), and PRF Aerial Inspection Survey was conducted by Adam Young on 18th September 2024. This assessment was carried out on the buildings and the trees that had potential to be impacted by proposals. T277 and T299, as indicated by the Tree Survey undertaken by RTAC Trees in August 2024 were found to have potential to support roosting bats as detailed in Table 2.3 below.

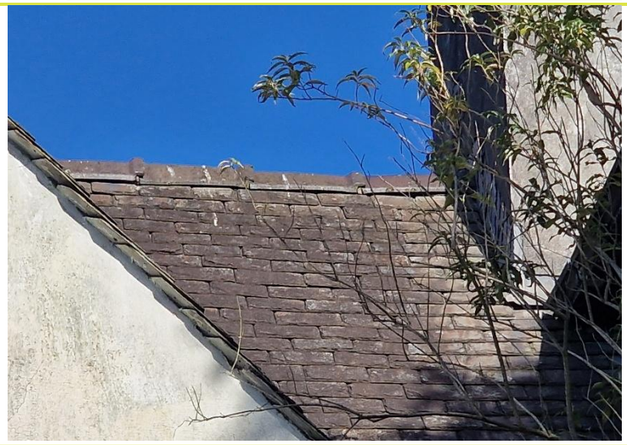
2.22. Due to adverse weather on the 6th and 7th of December 2024, an update Tree Survey was undertaken by RTAC Trees in January 2025[11]. Due to damage sustained during Storm Darragh, a number of additional trees may require removal for health and safety requirements. The update Tree Survey states the following: T245 (sycamore) has snapped at 6m – this tree can be retained as standing deadwood as it is out of falling distance of any targets. T273 – ash and T295 - Austrian pine *Pinus nigra* both have broken branches that need to be removed. T284 - silver maple *Acer saccharinum* has uprooted completely and needs to be removed. As such, further assessment of these trees for bat roosting potential will be undertaken and submitted in an addendum report to this EcIA.

2.23. See **Appendix 3** for methodology, **Table 2.3** below for results, and the Habitat Features and Preliminary Bat Roost Assessment Plan **17163/P07** for locations of the buildings and trees subject to the GLTA.

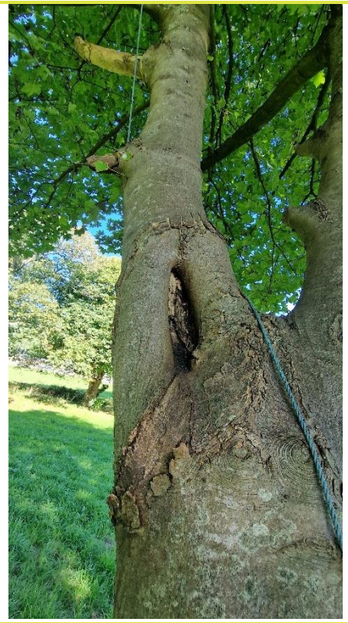
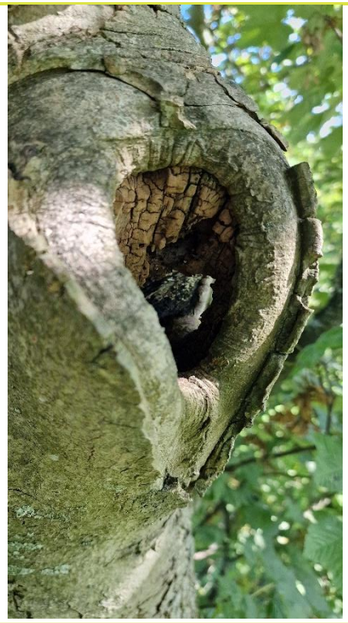
2.24. Further dusk emergence surveys of the main dwelling should be undertaken in the appropriate season in 2025 to inform the EPSL application to Natural Resources Wales.

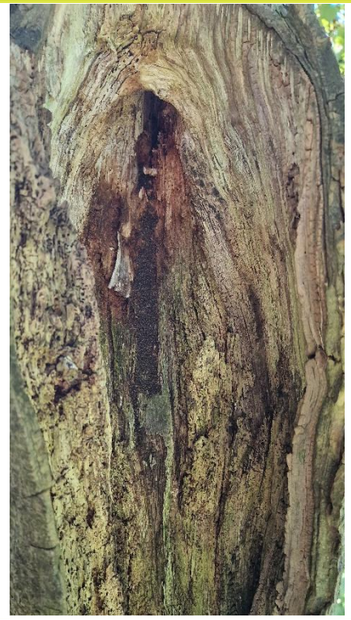
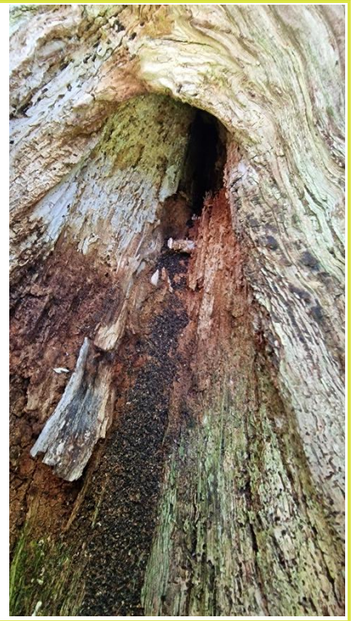
[9] https://maps.npt.gov.uk/iDocsPublic/ShowDocument.aspx?id=799461
[10] https://maps.npt.gov.uk/iDocsPublic/ShowDocument.aspx?id=828269
[11] RTACTrees (2025) "Tyn-y-caeau Margam, BS5837:2012 Tree Survey 19th January 2025" 08.24/TYC/V4

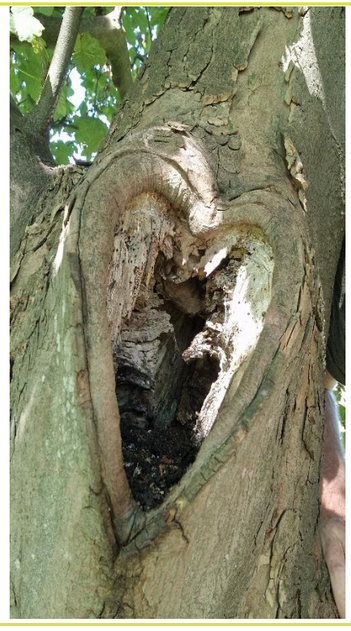
Table 2.3. PBRA/GLTA Results

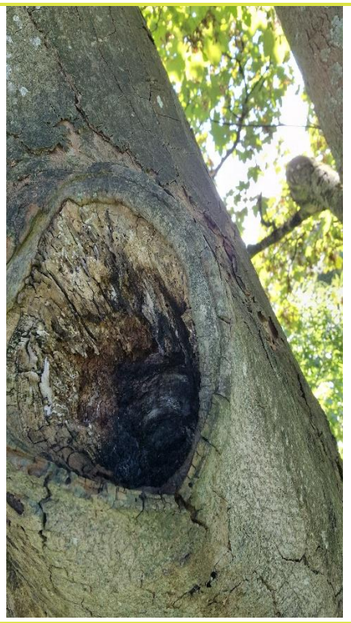
Structure/tree and Suitability	Potential Roost Feature (PRF)	Photograph
Building B1 – Main Dwelling Confirmed (High) Suitability	PRF1 – Raised slate end tiles at the gable apex.	
	PRF 2 – Loose slate ridge tiles on the eastern and southern aspects of the roof.	
	PRF 3 – Gaps under the soffits on the southern and western elevations.	

	PRF 4 – Access into the loft void is provided by open windows found on the north-eastern, eastern and southern elevations of the dwelling.	
	PRF 5 – Timber beams with bitumen 1F roofing felt.	
	Suspected fresh droppings within the loft void, concentrated at the entrance to the loft space.	

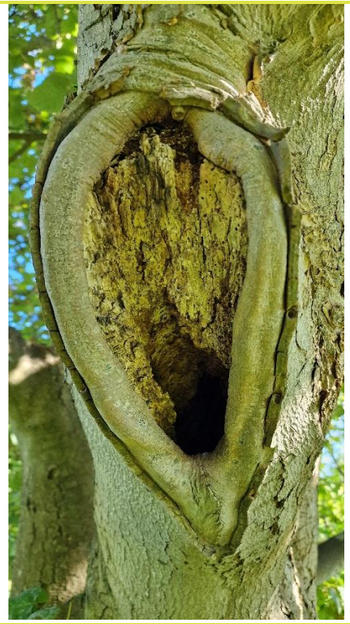
Tree T277 – Sycamore	PRF 6 – A tear out located on the southern stem facing diagonally down 2 m high. It has one entrance with some debris and slight roughness. The feature is partly secure and slightly exposed. Woodlice are present in this feature. This feature is categorised as PRF-I and is considered to be suitable for a small number of individuals of crevice or tree-dwelling species.	
Tree T299 – Sycamore	PRF 7 – A knot hole located on a southern limb 10 m high. There are two entrances to this feature. This feature is considered to have negligible roosting suitability for bats.	

	PRF 8 – A branch cavity located on a northern limb facing diagonally down 10 m high. It has one entrance with some debris, is slightly rough and has 25% humidity. The feature is moderately secure with partial exposure. Woodlice are present in this feature. This feature is categorised as PRF-I and is considered to be suitable for a small number of individuals of crevice or tree-dwelling species.		
	PRF 9 – A branch cavity located on a northern limb facing down 11 m high. It has one entrance with some debris, is slightly rough and has 25% humidity. The feature is moderately secure with partial exposure. Slugs are present in this feature. This feature is categorised as PRF-I and is considered to be suitable for a small number of individuals of crevice or tree-dwelling species.		

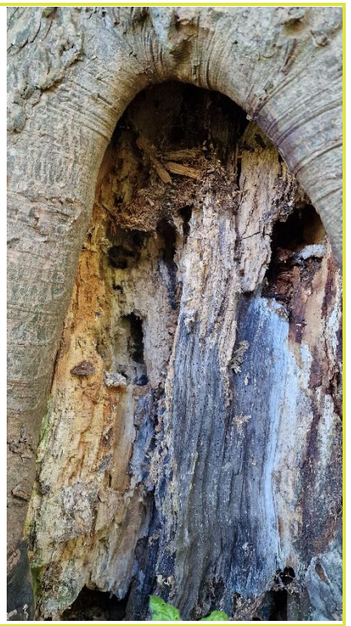
	PRF 10 – A knot hole located on a southern limb which lies horizontal 8.5 m high. It has one entrance with moderate debris and roughness with 75% humidity. The feature has minimal security and moderate exposure. Woodlice are present in this feature. This feature is categorised as PRF-I and is considered to be suitable for a small number of individuals of crevice or tree-dwelling species.	 
	PRF 11 – A knot hole located on the southern stem which lies horizontal 7.5 m high. It has one entrance with some debris, moderate roughness and 25% humidity. The feature is moderately secure with partial exposure. This feature is categorised as PRF-I and is considered to be suitable for a small number of individuals of crevice or tree-dwelling species.	

	PRF 12 – A knot hole located on the north-western stem which lies horizontal 7.5 m high. This feature is considered to have negligible roosting suitability for bats.	
	PRF 13 – A knot hole located on the western stem which faces south 7.5 m high. It has one entrance and is mildly clean, slightly rough and has a humidity of 25%. The feature is partly secure with slight exposure. Slugs are present in this feature. This feature is categorised as PRF-I and is considered to be suitable for a small number of individuals of crevice or tree-dwelling species.	

	PRF 14 – A tear out located on a western limb facing diagonally down 10 m high. It has one entrance with some debris, is slightly rough and has a humidity of 25%. The feature has security and moderate exposure. Both slugs and woodlice are present in this feature. This feature is categorised as PRF-I and is considered to be suitable for a small number of individuals of crevice or tree-dwelling species.	
	PRF 15 – A branch cavity located on a south-western limb facing diagonally up 5 m high. This feature has one entrance. This feature is considered to have negligible roosting suitability for bats.	

	PRF 16 – A knot hole located on a south-westerly limb facing diagonally up 4 m high. It has one entrance with some debris and is moderately rough. The feature is moderately secure with partial exposure. Woodlice are present in this feature. This feature is categorised as PRF-I and is considered to be suitable for a small number of individuals of crevice or tree-dwelling species.		
	PRF 17- A knot hole located on the western stem which lies horizontal 3.5 m high. It has one entrance with some debris and is moderately rough. The feature is moderately secure with partial exposure. Woodlice are present in this feature. This feature is categorised as PRF-I and is considered to be suitable for a small number of individuals of crevice or tree-dwelling species.		

	PRF 18 – A knot hole located on the western stem which lies horizontal 3.5 m high. There is one entrance and has both moderate debris and roughness. The feature is moderately secure with moderate exposure. Woodlice are present in this feature. This feature is categorised as PRF-I and is considered to be suitable for a small number of individuals of crevice or tree-dwelling species.	
	PRF 19 – A knot hole located on the south-western stem which lies horizontal 2 m high. This feature is considered to have negligible roosting suitability for bats.	

	PRF 20 – Butt rot present at the north-western base facing down. There is one entrance and is notably dirty and rough with a humidity of 50%. The feature has no security and has no exposure. Woodlice are present in this feature. This feature is categorised as PRF-M and is considered to be suitable for multiple individuals of crevice or tree-dwelling species with suitability for a maternity colony.		

Commuting and Foraging Bats

2.25. The site lies within a rural context, with light pollution adjacent to site emanating from the A48 and M4 which lie directly east. Despite this there are habitats for commuting and foraging bats present on site and within the wider landscape. The habitats on site, including the urban trees, native hedgerows, scrub and areas of semi-mature woodland provide high quality commuting and foraging opportunities for bats due to their connectivity to habitats off-site and their species diversity.

2.26. Previous activity surveys have been undertaken adjacent to the proposed development site by Boyer Planning Consultants[12] between July – September 2021. The areas surrounding the site recorded seven bat species either foraging or commuting: common pipistrelle, soprano pipistrelle, Nathusius pipistrelle, noctule, serotine, lesser horseshoe at and unidentified myotis species. It was noted that the majority of bat activity was associated with the narrow woodland corridor along the Tyn-y-Caeau site boundary.

2.27. Overall, the assemblage of bats utilising the site for roosting, foraging, and commuting is considered to be of **county ecological importance**.

Birds

2.28. The data search returned 1600 records of 165 protected and notable birds species within 2 km of the site. Of these, some species of relevance to the site include mistle thrush, herring gull, black-headed gull and lesser black-backed gull which were all recorded within the site boundary. Other species recorded within 250m include redwing *Turdus iliacus*, reed bunting *Emberbiza schoeniclus*, song thrush *Turdus philomelos*, willow warbler *Phylloscopus trochilus*, dunnock *Prunella modularis*, linnet *Carduelis cannabina*, wren *Troglodytes troglodytes*, swallow *Hirundo rustica*, woodcock *Scolopax rusticola*, house sparrow *Passer domesticus*, greenfinch *Carduelis chloris*, lapwing *Vanellus vanellus* and whitethroat *Sylvia communis*.

2.29. Habitats on site, such as the building, scattered broadleaved trees, native hedgerows, broadleaved semi-natural woodland, and dense scrub have the potential to support common and widespread nesting birds. A buzzard *Buteo buteo* was seen flying south-west alongside blue tit *Parus caeruleus*, robin *Erithacus rubecula* and blackbird *Turtus merula* recorded during the Phase I Survey undertaken in 2024.

2.30. It is considered the assemblage of birds that may use the site for foraging and breeding is of **negligible ecological importance** due to the limited area of habitats present and habitats present off-site which provide foraging and breeding opportunities, nevertheless consideration for nesting birds to avoid a breach of legislation is discussed in **Section 3** of this report.

Hazel Dormouse

2.31. The data search returned no records of hazel dormouse from within 2 km of the development site.

[12] https://maps.npt.gov.uk/iDocsPublic/ShowDocument.aspx?id=759727

2.32. The hedgerows found on site host species such as hawthorn, bramble, holly and hazel alongside the areas of woodland which contain species such as hazel and apple. These have potential to support dormice as they contain their favoured foraging resources and offer connectivity to the wider area. The composition of the hedgerows and woodland, alongside the structural diversity and cover they provide, means the habitat on site could potentially support a population of dormice.

2.33. Potential hazel dormice present are unlikely to solely rely on the site for their continued survival due to the isolated nature of the suitable habitats. Therefore, it is considered unlikely that a population of dormice using the site would be of more than **local ecological importance**.

Invertebrates

2.34. The data search returned 404 records of 121 different invertebrate species. The closest record was of a brown-banded carder bee *Bombus humilis*, located 50 m north of the site.

2.35. Given the habitats present on site and its floral diversity it is assumed that the site will support an assemblage of invertebrates but is unlikely to support notable or rare species.

2.36. Potential invertebrate species present are unlikely to solely rely on the site for their continued survival. An invertebrate assemblage using the site is likely to be of **negligible ecological value**.

Other Mammals

2.1. The data search returned records of other terrestrial mammal species within 2 km of the site. These included, brown hare *Lepus europaeus*, polecat *Mustela putorius*, and western European hedgehog *Erinaceus europaeus*. The nearest record was of a polecat, 29 m south of the site from 2019.

2.2. The habitats on site such as the hedgerows bordering the site, the broad-leaved woodland and the areas of scrub provide suitable refuge and foraging opportunities for a range of small mammals. It is considered likely that a range of small mammals will occur on site either as a resident or whilst foraging and/or commuting.

2.3. The habitats found on site are widespread in the wider landscape so it is considered unlikely that any small mammals using the site will rely on it for their sole survival. The assemblage of small mammals using the site would be of **negligible ecological importance**. However, sensible construction practices should be enforced to reduce potential impacts to these species.

Reptiles

2.4. The data search returned a number of records of protected and notable reptile species within 2km of the site. These included five adder *Vipera berus*, 36 common lizard, 17 grass snake and 24 slow-worm *Anguis fragilis*. The closest record is of a slow-worm, located 0.4 km north of the site from 2006.

2.5. A Reptile Survey and Mitigation report[13] was prepared by I&G Ecological Consulting Ltd in July 2022 following a targeted reptile survey between 10th May – 30th June 2022. Results found the presence of common frog, common toad, slow worm and common lizard. The maximum count for any one visit comprised two common lizards and one slow-worm. Therefore, a low population of both slow worm and common lizard are confirmed on site.

2.6. Despite the areas of grassland being closely mown at the time of the updated Phase I survey, the habitats present on site provide varied sward heights and habitat interfaces which provide refuge and basking opportunities. Additionally, log piles were found scattered throughout the site (TN26, TN28, and TN34) alongside a rubble pile with wood chippings (TN37) which provide refuge opportunities for reptiles.

2.7. Considering the habitats present on-site alongside the previous positive survey results for common lizard and slow-worm, the assemblage of reptiles that uses the site is considered to be of **local ecological importance**.

[13] https://maps.npt.gov.uk/iDocsPublic/ShowDocument.aspx?id=799454

Section 3: Ecological Impacts, Mitigation, and Enhancement

Proposed Development

3.1. The proposals are for the construction of a Data Centre, including associated access, car parking and landscaping (refer to **Appendix 1**). The potential impacts at this site as a result of the proposed development are set out below, with reference to relevant legislation and planning policy.

Planning Policy Wales: Edition 12 and Design Evolution

3.2. Planning Policy Wales (PPW) was updated in February 2024 and sets out the Government's planning policies for Wales and how these should be applied. It includes provision for 'Net Benefits for Biodiversity' through the 'Step-wise Approach', 'Protection of SSSIs' and 'Trees and Woodlands'. The following section details the implications of these policies on the development, and how the masterplan has responded accordingly.

3.3. The proposed development primarily affects semi-improved neutral grassland, the centralised area of dense scrub, seven individual trees (four to facilitate the development and a further three for health and safety), and the main dwelling, with impacts to existing hedgerows and areas of woodland avoided. The compensation for the impacts to the above habitats are outlined below.

3.4. The northern areas of semi-improved neutral grassland will be enhanced through the addition of yellow rattle *Rhinanthus minor* to the sward in autumn to control coarser grasses, allowing existing forbs and wildflowers to flourish. This will be accompanied by a grassland management strategy. Additional areas of wildflower and wet wildflower planting are proposed surrounding the constructed Data Centre to enhance overall site biodiversity by sowing both grasses and wildflower to disturbed ground following construction.

3.5. The centralised area of dense scrub will be lost to facilitate the construction of the Data Centre. To compensate for this, additional scrub/species rich shrubs will be planted and managed to the south of the site amongst the woodland. Species will include hazel, holly and hawthorn to dominate, bolstering the existing presence on site and therefore enhancing foraging opportunities for any dormouse present.

3.6. To compensate for the loss of four Category B&C trees, additional replanting of 12 trees will be undertaken across the site to ensure policy regarding a three-to-one replanting ratio for trees removed is followed. This will also serve to enhance the woodland, native hedgerows and other areas of the site. Additionally, a further three trees will be planted to replace the three Category U trees lost, ensuring one-to-one replacement for trees of this category.

3.7. The main dwelling is currently in a state of disrepair and without required renovation, is likely to result in the loss of the existing bat roost. The main dwelling will be renovated into office space as part of the development which provides the opportunity to incorporate the current

lesser horseshoe roost present in the loft and additional roosting features provided for the crevice dwelling species present to secure the longevity of these roosting opportunities.

3.8. Those habitats within the site which have been identified as being of 'local' ecological importance, and/or priorities for conservation under Section 7 of the Environment (Wales) Act 2016 are those which the step-wise approach seeks to address. In the context of the site, these habitats are:

- Southern area of woodland;
- Individual trees; and
- Hedgerows.

3.9. The proposals (**Appendix 1**) accords with the step-wise approach by mostly retaining these habitats (with the exception of five Category B&C individual trees), with the ability to enhance them and compensate for any losses, through a planting scheme to be set out in a LEMP, which can be secured by planning condition. The layout plan also shows the continued connection of these habitats to the wider landscape, allowing them to retain functionality and resilience as habitats in their own right and to the fauna which uses them.

3.10. Beyond the protection and compensation of existing ecological features within the site, the layout plan also seeks to provide enhancements in habitat coverage and quality, which also offers benefits for the wildlife which utilise such habitats. Grassland, hedgerow and scrub enhancements, alongside scrub management and additional tree and hedgerow planting within the woodland, help to promote connectivity to the wider landscape. The creation of a Sustainable Urban Drainage (SUDs) will create new habitats for wildlife, including birds, amphibians, and aquatic species and increase diversity of the site habitats. These features contribute not only to water management but also to the aesthetic ad environmental appeal of the site, blending seamlessly with the landscape while offering practical benefits. The construction of the new Data Centre will be accompanied with living walls, a section of green roof and walking areas paved in grasscrete, enhancing the overall biodiversity of the site.

3.11. In addition, the removal of Japanese knotweed will be undertaken and an Invasive Species Management Strategy, to be secured by planning condition will be required. The removal of this species will serve as an additional enhancement to the site.

3.12. Overall, it is considered that with the implementation of the layout plan as presented, the development has the ability to deliver an overall improvement for biodiversity through the retention, compensation and enhancement of existing green infrastructure, alongside the creation of new habitat to provide strengthened connections to the wider landscape, thus delivering a more resilient and connected environment.

Designated Sites

Statutory Sites

3.13. Given the nature of the site proposals and the distances involved between the site and the Cefn Cribwr Grassland and Cynffig SACs, no adverse direct or indirect effects are anticipated, and no specific mitigation is required.

3.14. Eglwys Nunydd Reservoir SSSI lies 0.63 km south of the site. No impacts to this site are anticipated as part of the operational phase of the development, given there is no significant change of use. During the construction phase, there could be potential indirect impacts via chemical/fuel run-off, noise/visual/vibration impacts, dust, etc.

3.15. Standard best practice pollution prevention[14] is expected to be incorporated into a Construction Environmental Management Plan (CEMP). These potential impact pathways will therefore be controlled, and impacts to Eglwys Nunydd Reservoir SSSI will be avoided.

Non-statutory Sites

3.16. NPT Watercourses, NPT ASNW, Junction 38 Wetland Complex, Margam Country Park and Eglwys Nunydd SINCs are located between 0.1 – 0.6 km to the east, south and west of the site (please see **Table 2.1**). Whilst direct impacts would not be anticipated, impacts during construction activities could potentially occur to these sites via dust deposition and run-off due to the presence of small streams located adjacent to the development site.

3.17. These potential impacts can be controlled through best practice pollution prevention measures, which can be implemented in a CEMP. The CEMP will include standard best practice pollution prevention, and can be secured via a planning condition.

Habitats and Flora

3.18. Several of the habitats onsite to be impacted by the proposals are of negligible ecological importance, namely the buildings, hardstanding, dense scrub, and semi-improved neutral grassland, and as such no specific mitigation is required. However, the individual trees present on site are of local ecological importance and **Section 3.6** outline the proposed mitigation, compensation and enhancement to these habitats.

3.19. Retained habitats onsite such as the native hedgerows, woodland, dense scrub and semi-improved neutral grassland will be protected during the construction phase. Tree protection measures will follow the guidance outlined within the Tree Survey Report completed by RTAC Trees in January 2025. To protect the root protection areas (RPAs) of retained trees, a non-compressible geogrid such as Cellweb TRP, serving as a no-dig root protection measure, will be used.

[14] CIRIA (2015) *Construction Work Sector Guidance for Designers*. Fourth edition. (C755D).

3.20. Overall, with the provision of native planting of trees, hedgerow, scrub, and species rich grassland and wildflower areas within the detailed landscape plan, the development is expected to improve the site overall for biodiversity.

Protected and Notable Species

Amphibians

3.21. During construction works, the removal of the dense scrub and semi-improved neutral grassland has potential to disturb, injure, or kill common amphibians. Previous surveys undertaken by I&G Ecology in 2022 recorded common toad and frog on the site. Therefore, vegetation removal will be subject to precautionary measures. Such activity will be supervised by a suitably qualified ecologist. Details of this supervision will be included within a Precautionary Working Method Statement for amphibians and reptiles, to be secured by a suitably worded planning condition, details of which can be found in **Section 3.50**.

3.22. Overall, with the additional tree, hedgerow and grassland planting across the site, supported by a LEMP, there will be an enhancement of suitable habitat availability on site for amphibians.

Badger

3.23. Whilst no evidence of badger or their setts have been identified on site, badgers are known to be active within a 2km area. The development proposals may result in the accidental disturbance, injury or killing of badgers using the site. A pre-commencement check for any badger sett creation within 30 m of the works area will be undertaken. Any badger setts which occur within the buffer zone will be monitored up until the commencement of works, assuming the sett is determined to be inactive from the monitoring period. If an active badger sett is identified within the 30 m buffer, a licence will be applied for through Natural Resources Wales. Mitigation will then be devised, if necessary, at that stage.

3.24. Foraging habitats must be considered during the project planning stage, as access to foraging is deemed a material consideration in Technical Advice Note 5 (Wales): Nature Conservation and Planning:

"The likelihood of disturbing a badger sett, or adversely affecting badgers foraging territory, or links between them, or significantly increasing the likelihood of road or rail casualties amongst badger populations, are capable of being a material consideration in the planning process".

3.25. Considering the above, the layout of the proposed development will still allow badgers to cross the site by retaining key habitat, such as woodland, hedgerows, and large areas of dense scrub, and reinstating other suitable habitat to be affected, such as the centralised area of dense scrub. As areas of short, mowed semi-improved neutral grassland is the only habitat to be permanently lost with the scheme, it is considered that the proposed tree and hedgerow planting, alongside the enhancement to the retained grassland which will be detailed within a LEMP, would reflect an enhancement to the foraging opportunities and habitat connectivity for badgers on site.

3.26. During the construction phase, precautionary measures will be implemented and detailed in a CEMP to avoid harm to badgers and other small mammals, including:

- All earth works and excavations which could potentially trap badger should either be covered at the end of daily operations where practicable or include a ramp to escape;
- Any erected fencing will be permeable to wildlife movement. A gap of at least 15 cm should be left along the bottom of the fencing under which a badger could pass. This will also make the site permeable to other small mammals which may be present on site;
- Work will be undertaken during the daytime where practicable, when badgers are least active, to minimise disturbance to their foraging activities; and
- Overnight lighting should be kept at a minimum.

3.27. With the implementation of these measures, any harm to badgers will be prevented during the construction phase.

Bats

Building

3.28. The main dwelling has previously been confirmed in 2023 to host one lesser horseshoe alongside a small number of soprano pipistrelles and common pipistrelles with no bats roosting within the annexe or outbuilding. Update surveys will be undertaken in 2025 by Tyler Grange Ltd to assess bat species and numbers to support a EPSL application to NRW.

3.29. As the building is proposed to be retained and renovated, the lesser horseshoe bat roost will be retained in-situ with additional crevice dwelling roosting opportunities embedded throughout. This may be in the form of lifted roof tiles, integrated bat tubes or raised fascia boards. The details of the mitigation will be outlined within the EPSL application following the updated bat surveys. The building once renovated will not be subject to any additional lighting or noise impacts. A sensitive lighting strategy will be required, to be subject to a planning condition.

Trees

3.30. The PRFs identified in **Table 2.3** confirm a single PRF-I feature in T277, with multiple PRF-I and a singular PRF-M feature present in T299. The felling of these trees may have a direct impact on any roosting bats, if present.

3.31. Tree T277, which is being lost as part of the proposals, was assessed as having PRF-I suitability to support roosting bats. In line with best practice guidance[15], no further surveys are required, however the tree will be subject to one pre-works inspection by a suitably qualified ecologist (SQE) with appropriate compensation provided in advance of impacts. Any sections of the tree with potential roost features should be inspected by a licenced bat ecologist or left undisturbed on the ground for at least 48 hours as a precaution. Compensatory measures

[15] Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition*. The Bat Conservation Trust, London.

will be employed with the installation of an externally erected bat box onto a retained tree within the development site (expected to be secured via a suitably worded planning condition).

3.32. Tree T299 has multiple PRF-Is and a singular PRF-M feature. The PRF-I features will be subject to the same pre-works inspection as the features on T277, however the PRF-M feature must be subject to two further surveys between May and August 2025. Given the size and location of the feature, it is possible that a large roost of crevice dwelling species may utilise the feature. To mitigate for this, a large multi-chambered externally mounted bat box which has suitability for summer maternity roosting and winter hibernation roosting for crevice dwelling species. This box will be mounted on a suitably sized retained tree within the proposed development site, the design of which will be confirmed through a suitably worded planning condition.

3.33. Due to recent adverse weather, T284 has been assessed by RTAC Trees to require removal for health and safety reasons as it has uprooted completely. Additionally, T273 and T295 both require broken branches to be removed for safety reasons. T284 and the branches to be removed on T273 and T295 will be subject to further survey to assess their potential for roosting bats and the results will be submitted in an addendum to this report.

Foraging and Commuting

3.34. The site has been assessed as having county ecological importance due to the range of bat species previously recorded foraging and commuting within and adjacent to the development site. The proposals do not result in the loss of the boundary features such as hedgerows which provide vital ecological connectivity for bats, however foraging and commuting opportunities may be reduced through lighting and noise during the construction and operational phases.

3.35. No lighting during construction is proposed and it is anticipated that lighting levels post-construction will not be greater than current levels. However, any outside lighting should avoid spilling onto retained habitats including existing hedgerows, the retained and newly planted trees, as well as any bat boxes or confirmed bat roosts and their access points. A sensitive lighting strategy will be required, to be subject to a planning condition.

3.36. Indirect impacts associated with dust and noise during the construction phase will be minimised by the implementation of a CEMP. The Noise report[16] shows that the predicted sound levels from the Data Centre during operation are no higher than the existing background noise levels.

3.37. To enhance the site for roosting bats, a minimum of five bat boxes are recommended to be incorporated within scheme by either using integrated bat boxes or externally erected bat boxes (expected to be secured via a suitably worded planning condition). Additional roosting features will be erected on the main dwelling as part of the EPSL application, following update surveys.

[16] Formant Straightforward Acoustic Design (2024). Tyn-Y-Caeau Data Centre. Noise Impact Assessment.

3.38. Through the retention of the majority of trees and new landscape planting such as the wildflower grassland, the scrub management, and hedgerow creation alongside the living walls and green roof proposed for the Data Centre, foraging and commuting bats may continue to use the site post-development.

Birds

3.39. All birds, their nests and eggs, are protected by law and as such it is an offence to intentionally kill, injure, or take any wild bird; intentionally take, damage, or destroy the nest of any wild bird while it is in use or being built; and intentionally take or destroy the egg of any wild bird.

3.40. To avoid triggering the legislation protecting nesting birds, clearance or modification of suitable habitat (the buildings, trees, scrub and hedgerows) should be timed outside the nesting bird season (generally taken as March to September inclusive, though this is not defined in law and birds may nest outside of this time). If any clearance works to nesting habitats are required during the nesting season, then pre-removal checks for nesting birds must be carried out by a suitably experienced Ecological Clerk of Works (ECoW), no more than 48 hours prior to the works commencing. If any nesting birds are found to be present, an appropriate buffer zone will be implemented, within which works are excluded for the duration of the breeding attempt. Any active nests will need to be left in situ until a suitably experienced ecologist confirms that the chicks have fledged and the nest is no longer active.

3.41. Habitat creation such as native shrub and tree planting is expected to increase nesting opportunities on site. Alongside habitat creation, the enhancement of existing habitats such as the woodland, dense scrub and existing hedgerows will increase nesting and foraging opportunities on site. In addition, ten bird boxes are recommended to be incorporated within scheme on suitable retained trees and within the Data Centre, targeting species of conservation concern known to be present in the area such as swallows, swifts, and house martin (expected to be secured via a suitably worded planning condition).

Hazel Dormouse

3.42. The hedgerows on site host species such as hawthorn, bramble, holly and hazel alongside the areas of woodland and scrub which contain species such as hazel and apple. These areas of the site have potential to support dormice as they contain their favoured foraging resources. Optimal habitat is not anticipated to be affected, however, as a precaution, the clearance of suboptimal habitat (such as the bramble scrub) will be subject to a PWMS. This method statement will include conditions such as:

- Vegetation clearance should be kept to the absolute minimum required to facilitate the development;
- The clearance should be undertaken under the direct supervision of a licensed ecologist who will conduct a finger tip search of the dense scrub prior to works occurring. They will search for features that could be utilised for nest sites including hibernating dormouse;
- The removal of the dense scrub should be completed using hand held tools only (chainsaws and brush cutters);

3.43. If dormice, or evidence of dormice presence, are found during works, all works must cease as soon as it is safe to do so. If the working method cannot be changed, an EPSL from NRW may be required.

3.44. As demonstrated within the site layout plan, the existing hedgerows will be enhanced alongside new hedgerow planting throughout the site. These hedgerows will connect to the wider areas of scrub and woodland to the south, providing habitat connectivity and therefore will enhance the site for hazel dormouse.

Invertebrates

3.45. Any invertebrates present on site may be impacted by the loss of the semi-improved neutral grassland, individual trees and small area of dense scrub. As it is anticipated that the site will not support any notable or rare invertebrate species, no targeted mitigation is required.

3.46. Enhancement opportunities for invertebrate species lie within the enhancement of the semi-improved neutral grassland which will be subject to additional planting and a management regime to encourage species diversity and enhance biodiversity on site. The addition and enhancement of the boundary hedgerows and tree planting will also provide foraging opportunities for any invertebrates present on site.

Other Mammals

3.47. The habitats on site such as the hedgerows bordering the site and the areas of scrub provide suitable refuge and foraging opportunities for a range of small mammals such as hedgehog and polecat. It is considered likely that these species may occur on site either as a resident or whilst foraging and/or commuting.

3.48. A CEMP will be required which will detail precautionary measures to avoid harm to badgers which will in-turn provide measures for any hedgehog or polecat present on site (see **Section 3.26**). With the implementation of these measures, any harm to small mammals will be prevented during the construction phase.

3.49. Enhancement opportunities for small mammals can be found within the grassland, scrub and hedgerow enhancements alongside the creation of log piles and the additional tree, scrub, and hedgerow planting across site. This will encourage foraging across the site and provide connectivity to the wider landscape for any hedgehog or polecat using the site.

Reptiles

3.50. All reptiles are protected under the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally (or recklessly, in Scottish law) kill or injure a reptile.

3.51. Previous surveys undertaken by I&G Ecology in 2022 have established that small populations of common lizard and slow worm are present on the site. During construction works, the removal of the dense scrub and semi-improved neutral grassland has potential to disturb, injure, or kill a reptile. In advance of these works, the area of semi-improved neutral grassland north of the access track will be enhanced prior to construction. These enhancements include native planting and the construction of log piles which will be fenced off with reptile-proof

fencing which will provide a natural receptor area for any reptiles found on site during the clearance works.

3.52. Additionally, the vegetation removal will be subject to precautionary measures. Such activity will be supervised by a suitably qualified ecologist. Details of this supervision will be included within a Precautionary Working Method Statement, summarised below, to be secured by a suitably worded planning condition:

- All contractors will be given a toolbox talk by the SQE prior to commencement of works;
- Habitats to be retained in the development will be marked out by a barrier to prevent unnecessary vegetation removal and discourage the storage of materials in those areas;
- A long cut (>30 cm) of vegetation associated with the grassland and scrub habitats will be undertaken, followed by a check for reptiles by the SQE; and
- A hand search of possible refuges of the vegetation will be undertaken by the SQE before supervision of a destructive search, and ultimately the complete removal of the vegetation.

3.53. If reptiles are found during works, they will be translocated to the northern area of grassland, which is set to be retained, protected, and enhanced by additional planting and management.

3.54. Any logs from felled trees to facilitate the development are re-used within the northern area of the site to create additional log pile refugia for any reptiles present. Overall, with the additional tree, hedgerow and grassland planting across the site, supported by a management plan, there will be an enhancement of suitable habitat availability on site for reptiles.

Section 4: Conclusions

4.1. Four statutory designated sites: Cefn Cribwr Grasslands (SAC), Cynffig (SAC), Eglwys Nunydd Reservoir (SSSI), and Margam Moors (SSSI), were assessed. No impacts are anticipated due to the nature of the proposals and the distance between the development site and the designated sites. Five non-statutory sites were assessed, and no impacts are anticipated as a result of development, as long as standard best practice is followed to control impacts via air, run-off, and other pollutants. These are to be incorporated into a CEMP which is to be secured by an appropriately worded planning condition.

4.2. The development will primarily affect habitats of negligible ecological importance. The loss of trees and dense scrub, of local ecological importance, will be compensated for by replacement tree planting and scrub planting/management. With the enhancements and habitat creation proposed, including native species planting, removal of invasive species, hedgerow enhancement and additional planting, and wildflower planting, habitats of ecological importance on site will be enhanced, providing additional opportunities for biodiversity within the site.

4.3. The site has confirmed suitability for a range of foraging/commuting and roosting bats with common pipistrelle, soprano pipistrelle, and lesser horseshoe bats previously confirmed to be roosting on site. Targeted reptile surveys confirm that a low population of common lizard and slow-worm are present on site, alongside common frog and common toad. Additional roosting features for bats within the trees will be provided in the erection of three bat boxes on retained trees and the provision of a large bat box suitable for maternity and hibernation roosts to compensate for the loss of the PRF-M feature. Additionally, the lesser horseshoe bat roost will be retained in-situ with additional embedded crevice dwelling features through the renovation of the building. An EPSL with respect to roosting bats will be required, following updated bat surveys to be completed in 2025 to inform the mitigation measures required. To mitigate for the impacts to reptiles, the areas of semi-improved neutral grassland north of the access track will be enhanced with additional planting, log pile creation and reptile exclusion fencing, allowing for any reptiles found to be safely relocated to suitable habitat. A PWMS with respect to reptiles and amphibians will also be required to ensure any present on site are not inadvertently harmed. The PWMS and the requirement for additional bat boxes are expected to be secured through planning conditions.

4.4. Alongside confirmed suitability for bats, reptiles, and amphibians, the site has suitable habitat for badgers, breeding birds, hazel dormouse, invertebrates, and other small mammals. Where habitat of value to these species will be impacted through development, measures will be set out in a CEMP and a PWMS with respect to dormice to ensure any protected species present are not inadvertently harmed. Post-development, details set out in a LEMP will ensure that created habitat is managed favourable for protected species, and specific enhancements such as bat boxes, bird boxes, and log pile refugia creation will be included as well. The CEMP, PWMS and the LEMP are expected to be secured through planning conditions.

4.5. In conclusion, in anticipation of the implementation of any necessary mitigation, the proposed development will be compliant with relevant planning policies as well as legislation with regard to ecology as listed in **Appendix 2**.



Appendix 1: Proposed Landscape Proposals

Trees

Abbrev.	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Number
A ca	Acer campestre	Common Maple	16-18	400-450	RB	3x, EHS, clear stem min. 200cm; 5 brks	3
A pl	Acer platanoides	Norway Maple	18-20	450-550	RB	3x, EHS, clear stem min. 200cm	3
A ps	Acer pseudoplatanus	Sycamore	18-20	min 450	RB	3x, EHS, clear stem min. 200cm	2
A sa	Acer saccharinum	Silver Maple	18-20	450-550	RB	3x, EHS, clear stem min. 200cm	1
B pe	Betula pendula	Common Silver Birch	14-16	400-450	RB	3x, EHS, clear stem 175-200cm; 5 brks	1
C mon	Crataegus monogyna	Common Hawthorn	14-16	400-450	RB	3x, EHS, clear stem 175-200cm; 5 brks	1
P pad	Prunus padus	Bird Cherry	14-16	400-450	RB	3x, EHS, clear stem 175-200cm; 5 brks	2
S auc	Sorbus aucuparia	Rowan	14-16	400-450	B	3x, EHS, clear stem 175-200cm; 5 brks	2

PM1 - Enhanced Species rich grass mix

Emorsgate Seed Mix: EM2F Standard General Purpose Wild Flowers

Area: 100.000m² **Sow Rate: 1g/m²** **Amount: 100g** **Cost: (please input) /g**

5.00% Achillea millefolium – Yarrow
15.00% Centurea nigra – Common Knapweed
8.00% Daucus carota – Wild Carrot
2.00% Galium verum – Lady's Bedstraw
4.00% Knautia arvensis – Field Scabious
13.00% Leucanthemum vulgare – Oxeye Daisy
5.00% Malva moschata – Musk Mallow
15.00% Plantago lanceolata – Ribwort Plantain
10.00% Poterium sanguisorba ssp sanguisorba – Salad Burnet
3.00% Primula veris – Cowslip
10.00% Ranunculus acris – Meadow Buttercup
5.00% Rhinanthus minor – Yellow Rattle
5.00% Silene vulgaris – Bladder Campion

PM2: Bioretention mix

Emorsgate Seed Mix: EM8 Meadow Mixture for Wetlands

Area: 100.000m² **Sow Rate: 1g/m²** **Amount: 100g** **Cost: (please input) /g**

PM3 - Wildflower mix

Emorsgate Seed Mix: EM3 Special General Purpose Meadow Mixture

Area: 100.000m² **Sow Rate: 1g/m²** **Amount: 100g** **Cost: (please input) /g**

PM4: Scrub/ species rich shrub wildflower

Abbrev.	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Mix %	per m²
C san 'M-F'	Cornus sanguinea 'Midwinter Fire'	Dogwood 'Midwinter Fire'		60-80	B	0/1/1; Transplant - cutting raised; branched; 3 t	15	3
C av	Corylus avellana	Common Hazel		60-80	3L	Branched; 3 brks	14	2
C mon	Crataegus monogyna	Common Hawthorn		40-60	B	1+1; Transplant - seed raised	15	1
L per	Lonicera periclymenum	Common Honeysuckle		60-80	B	Cained; several shoots; 2 brks	5	1
P pad	Prunus padus	Bird Cherry		60-80	B	1+1; Transplant - seed raised; branched; 3 brks	15	1
R can	Rosa canina	Dog Rose		60-80	B	1+1; Transplant - seed raised; branched; 3 brks	15	2
S ni	Sambucus nigra	Common Elder		60-80	B	1+1; Transplant - seed raised; branched; 3 brks	13	2
V l	Viburnum lantana	Wayfaring Tree		60-80	B	1+2; Transplant - seed raised; branched; 3 brks	5	2
V op	Viburnum opulus	Guelder Rose		40-60	B	1+1; Transplant - seed raised; branched; 2 brks	5	2

PM5: Enhanced Native hedge

Abbrev.	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Mix %	per m²
C av	Corylus avellana	Common Hazel		40-60	B	1+1; Transplant - seed raised; branched; 2 brks	30	3
C mon	Crataegus monogyna	Common Hawthorn		40-60	B	1+1; Transplant - seed raised	30	1
R can	Rosa canina	Dog Rose		60-80	B	1+1; Transplant - seed raised; branched; 3 brks	25	2
V op	Viburnum opulus	Guelder Rose		40-60	B	1+1; Transplant - seed raised; branched; 2 brks	15	2

PM6: New native hedge

Abbrev.	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Mix %	per m²
C av	Corylus avellana	Common Hazel		40-60	B	1+1; Transplant - seed raised; branched; 2 brks	30	3
C mon	Crataegus monogyna	Common Hawthorn		40-60	B	1+1; Transplant - seed raised	30	1
I a	Ilex aquifolium	Common Holly		30-40	2L	Leader with laterals	15	3
P pad	Prunus padus	Bird Cherry		40-60	B	1+1; Transplant - seed raised	15	1
R can	Rosa canina	Dog Rose		40-60	2L	Branched; 3 brks	5	2
V op	Viburnum opulus	Guelder Rose		40-60	B	1+1; Transplant - seed raised; branched; 2 brks	5	2

PM7: Woodland understorey

Abbrev.	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Mix %	per m²
A nem	Anemone nemorosa	Wood Anemone			2L	Full pot	10	1
D f m	Dryopteris filix-mas	Male Fern			1.5-2L	Full pot	20	2
L per	Lonicera periclymenum	Common Honeysuckle		60-80	2L	Cained; several shoots; 2 brks	10	1
L niv	Luzula nivea	Snowy Wood-rush			2L	Full pot	10	4
O v	Omphalodes verna	Blue-eyed Mary			2L	Full pot	10	7
P vul	Primula vulgaris	Primrose			2L	Full pot	10	5
R can	Rosa canina	Dog Rose		60-80	B	1+1; Transplant - seed raised; branched; 3 brks	15	2
S ho	Stellaria holostea	Greater Stitchwort			1L	Full pot; Sept to April planting; British native-on	5	2
V op	Viburnum opulus	Guelder Rose		40-60	B	1+1; Transplant - seed raised; branched; 2 brks	10	2

Bulb mix

Abbrev.	Botanical Name	Common Name	Girth/ Dia. cm	Height cm	Root Zone	Specification	Mix %
Cro Ru	Crocus tommasinianus 'Ruby Giant'	Early Crocus 'Ruby Giant'				Grade 5/7	25
G n	Galanthus nivalis	Common Snowdrop				Grade 5/6	25
H n-s	Hyacinthoides non-scripta	English Bluebell				Grade 6/7	25
N p	Narcissus pseudonarcissus	Wild Daffodil				Grade 5/6	25

PM8: Green Roof

Grufe Tile: Sedum & Wildflower tile standard mix

PM9: Green Wall mix

Green wall mix by Viritopia including species:

PM10 - Species rich grass mix

Emorsgate Seed Mix: EM2F Standard General Purpose Wild Flowers

Area: 100.000m² **Sow Rate: 1g/m²** **Amount: 100g** **Cost: (please input) /g**

Drain

KEY

- Red line boundary
- Existing trees
- Proposed trees
- Root Protection Area
- Category U trees to be removed
- PM1 Enhanced grassland
- PM2 Bio-retention mix
- PM3 Wildflower
- PM4 Scrub / species rich shrubs
- PM5 Existing native hedgerow enhancements
- PM6 New native hedgerow
- PM7 Woodland edge understory
- PM8 Green roof
- PM9 Living walls
- PM10 species rich grass

NOTES:

NOT FOR SITE PURPOSES: This drawing is a general arrangement plan only and is not intended for site purposes.

SCALE: Do not scale from this drawing.

SETTING OUT: All setting out, levels, dimensions to be agreed on site. Do not use the information on this drawing without checking all dimensions on site. Any discrepancies between drawings, specifications and site works are to be reported to The Urbanists. Order of construction and setting out is to be agreed on site.

CHECK: This drawing must be the latest revision, read in conjunction with all other drawings, details, specifications and schedules. All dimensions are in millimetres unless otherwise stated. Where and contradiction or uncertainty arises between the drawings and/or the schedule of works, it is the contractor's responsibility to seek verification from The Urbanists before proceeding. No claims will be met by The Urbanists, where the contractor continues work in absence of such confirmation.

No.	Date	By	Revision Notes

PROJECT STATUS:

S0 (WORK IN PROGRESS)

theurbanists

Client WBE

Project LAND AT TYN-Y-CAEAU, MARGAM

Title Softworks GA

Project ID	Organiser	Block	Level	Type	Role	Dwg	Rev.	Status
2335	URB	XX	XX	DR	L	102		DRAFT

Drawn LC Date 24/01/2025 Checked SJ Scale 1:500

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Appendix 2: Legislation and Planning Policy

Legislation

A2.1. Specific habitats and species receive legal protection in the UK under various pieces of legislation, including:

- Environment Act (Wales) 2016;
- The Wildlife and Countryside Act (WCA) 1981 (as amended);
- The Conservation of Habitats and Species Regulations 2017 (as amended);
- The Countryside and Rights of Way (CRoW) Act 2000;
- The Natural Environment and Rural Communities Act (NERC) 2006;
- The Hedgerows Regulations 1997;
- The Protection of Badgers Act 1992; and
- Well-Being of Future Generations Act (2015).

A2.2. Section 6 of the Environment Act (Wales) 2016 places a duty on public authorities to 'seek to maintain and enhance biodiversity' so far as it is consistent with the proper exercise of those functions. In so doing, public authorities must also seek to 'promote the resilience of ecosystems'. Section 7 of the Environment Act requires the Welsh Ministers to publish, review and revise lists of living organisms and tyles of habitat in Wales, which they consider are of key significance to sustain and improve biodiversity in relation to Wales. This is known as the Section 7 Habitat and Species list.

A2.3. The European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992, often referred to as the 'Habitats Directive', provides for the protection of key habitats and species considered of European importance. Annexes II and IV of the Directive list all species considered of community interest. The legal framework to protect the species covered by the Habitats Directive has been enacted under UK law through The Conservation of Habitats and Species Regulations 2017 (as amended).

A2.4. In Britain, the WCA 1981 (as amended) is the primary legislation protecting habitats and species. SSSIs, representing the best examples of our natural heritage, are notified under the WCA 1981 (as amended) by reason of their flora, fauna, geology or other features. All breeding birds, their nests, eggs and young are protected under the Act, which makes it illegal to knowingly destroy or disturb the nest site during nesting season. Schedules 1, 5 and 8 afford protection to individual birds, other animals and plants.

A2.5. The CRoW Act 2000 strengthens the species enforcement provisions of the WCA 1981 (as amended) and makes it an offence to 'recklessly' disturb a protected animal whilst it is using a place of rest or shelter or breeding/nest site.

A2.6. The Hedgerow Regulations 1997 state it is against the law to remove most countryside hedgerows without first obtaining permission from the local planning authority ("LPA"). In particular, the Regulations apply to any hedgerow growing in, or adjacent to, any common land, protected land or land used for agriculture, forestry or the breeding or keeping of horses, ponies or donkeys if it has a continuous length of 20 metres or more, or if it has a continuous length of less than 20 metres and, at each end, meets (whether by intersection or junction) another hedgerow. However the Regulations do not apply to any hedgerow growing within the curtilage of, or which marks the boundary of, the curtilage of a house.

A2.7. The Protection of Badgers Act, 1992, requires badgers to be protected against killing, injury and cruel ill-treatment as well as preventing damage, destruction or obstruction to an active badger sett, or from disturbing a badger when it is occupying such a sett.

A2.8. The Well-Being of Future Generations (Wales) Act is about improving the social, economic, environmental and cultural well-being of Wales.

A2.9. It is an offence under Section 14 of the Wildlife and Countryside Act 1981 (as amended) to cause plants listed in Schedule 9 of this act to grow in the wild. Material contaminated with these species is classified as controlled waste under the Environmental Protection Act 1990 and should therefore be disposed of in an appropriately licenced landfill site.

National Planning Policy

Planning Policy Wales (PPW): Edition 12 – February 2024

A2.10. Planning Policy Wales (PPW) was updated in February 2024 and sets out the Government's planning policies for Wales and how these should be applied. It includes provision for Net Benefits for Biodiversity.

A2.11. Section 6.4 of PPW considers biodiversity and ecological network and states that *"the planning system has a key role to play in helping to reverse the decline in biodiversity and increase the resilience of ecosystems, at various scales, by ensuring appropriate mechanisms are in place to both protect against loss and to secure enhancement".*

A2.12. *Addressing the consequences of climate change should be a central part of any measures to conserve biodiversity and the resilience of ecosystems. Information contained in SoNaRR, Area Statements, Local Nature Plans, Local Nature Recovery Action Plans, Local Biodiversity Action Plans and held by Local Environmental Record Centres should be taken into account. Development plan strategies, policies and development proposals must consider the need to:*

i) support the maintenance and enhancement of biodiversity and the resilience of ecosystems;

ii) ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats, including the most recent targets set out in the 2022 UN Global Biodiversity Framework;

iii) ensure statutorily and non-statutorily designated sites and habitats are properly protected and managed and their role at the heart of resilient ecological networks is safeguarded;

iv) safeguard protected species and species of principal importance and existing biodiversity assets from direct, indirect or cumulative adverse impacts that affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them, such as water, air and soil, including peat; and

v) secure the maintenance and enhancement of ecosystem resilience and resilient ecological networks by improving diversity, extent, condition, and connectivity.

A2.13. The Biodiversity and Resilience of Ecosystems Duty (Section 6 Duty) 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 specie (not including non native invasive species)s, locally or nationally and must provide a net benefit for biodiversity and improve, or enable the improvement, of the resilience of ecosystems. A net benefit for biodiversity is the concept that development should leave biodiversity and the resilience of ecosystems in a significantly better state than before, through securing immediate and long-term, measurable and demonstrable benefit, primarily on or immediately adjacent to the site. The step-wise approach outlined below is the means of demonstrating the steps which have been taken towards securing a net benefit for biodiversity. In doing so, planning authorities must also take account of and promote the resilience of ecosystems, in particular the following attributes, known as the DECCA Framework:

i) diversity between and within ecosystems;

ii) the extent or scale of ecosystems;

iii) the condition of ecosystems including their structure and functioning;

iv) the connections between and within ecosystems; and

v) adaptability of ecosystems including their ability to adapt to, resist and recover from a range of pressures likely to be placed on them through climate change for example.

In fulfilling this duty, planning authorities must also have regard to:

vi) the list of habitats and species of principal importance for Wales, published under Section 7 of the Environment (Wales) Act 2016;

vii) the SoNaRR, published by NRW;

viii) any Area Statement, published by NRW, that covers all or part of the area in which the authority exercises its functions and NRW's Nature Network Maps126; and

ix) *guidance given to public authorities by Welsh Ministers under Section 6 of the Environment (Wales) Act.*

A2.14. Section 6.2 specifies the need for a green infrastructure statement:

"A green infrastructure statement should be submitted with all planning applications. This will be proportionate to the scale and nature of the development proposed and will describe how green infrastructure has been incorporated into the proposal. In the case of minor development this will be a short description and should not be an onerous requirement for applicants. The green infrastructure statement will be an effective way of demonstrating positive multi-functional

outcomes which are appropriate to the site in question and must be used for demonstrating how the step-wise approach (Paragraph 6.4.15) has been applied."

A2.15. Section 6.4 strengthens protection for Sites of Special Scientific Interest stating:

"There is a presumption against all other forms of development in a SSSI as a matter of principle and this presumption should be appropriately reflected in development plans and development management decisions. There is also a presumption against development not within a SSSI but likely to damage a SSSI. In such cases, proposals must be carefully assessed to ensure that effects on those nature conservation interests which the designation is intended to protect are clearly understood and development should be refused where there are adverse impacts on the features for which a site has been designated."

A2.16. Section 6.4 also specifies mitigation measures to be implemented for losses of trees:

"Permanent removal of trees, woodland and hedgerows will only be permitted where it would achieve significant and clearly defined public benefits. Where individual or groups of trees and hedgerows are removed as part of a proposed scheme, planning authorities must first follow the step-wise approach as set out in paragraph 6.4.15. Where loss is unavoidable developers will be required to provide compensatory planting (which is proportionate to the proposed loss as identified through an assessment of green infrastructure 139 Further advice in relation to ancient woodland is available on NRW's website. value including biodiversity, landscape value and carbon capture). Replacement planting shall be at a ratio equivalent to the quality, environmental and ecological importance of the tree(s) lost and this must be preferably onsite, or immediately adjacent to the site, and at a minimum ratio of at least 3 trees of a similar type and compensatory size planted for every 1 lost. Where a woodland or a shelterbelt area is lost as part of a proposed scheme, the compensation planting must be at a scale, design and species mix reflective of that area lost. In such circumstances, the planting rate must be at a minimum of 1600 trees per hectare for broadleaves, and 2500 trees per hectare for conifers."

Local Planning Policy

Neath Port Talbot Local Development Plan 2011 – 2026[17] (Adopted January 2016)

POLICY SP 15: BIODIVERSITY AND GEODIVERSITY

A2.17. Important habitats, species and sites of geological interest will be protected, conserved, enhanced and managed through the following measures:

1. The identification of the following International and Nationally designated sites within the County Borough to enable their protection:

a) Special Areas of Conservation (SACs) and RAMSAR sites;

b) Sites of Special Scientific Interest (SSSIs); and

[17] https://media.npt.gov.uk/media/ca2fbumd/ldp_written_statement_jan16.pdf?v=20240823155047

c) National Nature Reserves (NRRs).

2. The identification and protection of sites of regional and local importance.

3. The protection of important natural heritage features.

POLICY SP16: ENVIRONMENTAL PROTECTION

A2.18. Air, water and ground quality and the environment generally will be protected and where feasible improved through the following measures:

1. Ensuring that proposals have no significant adverse effects on water, ground or air quality and do not significantly increase pollution levels;

2. Giving preference to the development of brownfield sites over greenfield sites where appropriate and deliverable;

3. Ensuring that developments do not increase the number of people exposed to significant levels of pollution.

POLICY EN6: IMPORTANT BIODIVERSITY AND GEODIVERSITY SITES

A2.19. Development proposals that would affect Regionally Important Geodiversity Sites (RIGS), Local Nature Reserves (LNRs), Sites of Interest for Nature Conservation (SINCs), sites meeting SINC criteria or sites supporting Local Biodiversity Action Plan (LBAP) or S42 habitats or species will only be permitted where:

1. They conserve and where possible enhance the natural heritage importance of the site; or

2. The development could not reasonable be located elsewhere, and the benefits of the development outweigh the natural heritage importance of the site.

Mitigation and/or compensation measures will need to be agreed where adverse effects are unavoidable.

POLICY EN7: IMPORTANT NATURAL FEATURES

A2.20. Development proposals that would adversely affect ecologically or visually important natural features such as trees, woodlands, hedgerows/field boundaries, watercourses or ponds will only be permitted where:

1. Full account has been taken to the relevant features in the design of the development, with measures put in place to ensure that they are retained and protected wherever possible; or

2. The biodiversity value and role of the relevant features has been taken into account and where removal is unavoidable, mitigation measures are agreed.

POLICY EN8: POLLUTION AND LAND STABILITY

A2.21. Proposals which would be likely to have an unacceptable adverse effect on health, biodiversity and/or local amenity or would expose people to unacceptable risk due to the following will not be permitted:

- Air pollution;
- Noise pollution;
- Light pollution;
- Contamination;
- Land instability;
- Water (including groundwater) pollution.

Proposals which would create new problems or exacerbate existing problems detailed above will not be acceptable unless mitigation measures are included to reduce the risk of harm to public health, biodiversity, and/or local amenity to an acceptable level.

POLICY EN9: DEVELOPMENTS IN THE CENTRAL TALBOT AREA

A2.22. Developments in the central Port Talbot area that could result in breaches of air quality objectives during their construction phase, will be required to be undertaken in accordance with a Construction Management Plan submitted as part of the planning process and agreed by the Council.

Neath Port Talbot Biodiversity Actions Plan[18]

A2.23. The Neath Port Talbot Biodiversity Action Plan (BAP) outlines action plans for the following habitats and species:

Habitat	Related Priority Species
Heathland and Moorland	• Marsh fritillary • Adder • Globe flower • Meadow thistle • Dyer's greenweed
Semi-Natural Grassland	• Shrill carder bee • Greater burnet • Roesel's bush cricket • Greater butterfly orchid
Wetland Habitats	• Water vole • Sphagnum • Fen raft spider
Coastal Habitats	• Dune wormwood • Dotted sedge • Sanderling • Sea stock

[18] https://www.naturenpt.cymru/actions

Habitat	Related Priority Species
	• Small blue
Marine Habitats	• Harbour porpoise • Herring • Great crested grebe
Inland Rock and Cliff	• Ferns • Kestrel • Clubmoss (alpine, fir and stag's-horn)
Urban	• Swift • Hedgehog • Common toad
Freshwater	• Otter • Salmon • Dipper
Woodland	• Long-eared owl • Blue ground beetle
Open Mosaic Habitats	• Shrill carder bee • Deptford pink • Basil thyme • Lapwing
Enclosed Farmland	• Barn owl • Brown hare • Skylark

Appendix 3: Methodology and Results

Data Search

A3.1. A desk-based study was conducted whereby records of designated sites and records of protected and priority species were purchased and interrogated for the site and the surrounding landscape. The aim of the data search is to collate existing ecological records for the site and adjacent areas. Obtaining existing records is an important part of the assessment process as it provides information on issues that may not be apparent during a single survey, which by its nature provides only a 'snapshot' of the ecology of a given site.

A3.2. The following resources were consulted/contacted:

- Multi-Agency Geographic Information for the countryside (MAGIC) website[19];
- South East Wales Biodiversity Records Centre (SEWBReC)[20]; (Data ordered on 9th August 2024 and received on August 13th 2024);
- Neath Port Talbot Council website[21];
- Joint Nature Conservation Committee (JNCC) website[22];
- Natural Resources Wales (NRW) designated sites website[23];
- Ordnance Survey mapping; and
- Google Maps, including aerial photography.

A3.3. The following areas of search around the boundary of the site boundary were applied:

- 2 km for bat records;
- 2 km for protected and priority species, national statutory designated and non-statutory sites; and
- 10 km for European statutory sites.

'Extended' Phase I Habitat Survey

A3.4. An 'extended' Phase I survey was carried out on the 1st August 2024 by Kelly Brown[24], a suitably experienced ecologist. The methods used during the walkover survey broadly followed methods

[19] https://magic.defra.gov.uk/
[20] https://www.sewbrec.org.uk/
[21] https://www.npt.gov.uk/council/
[22] http://jncc.defra.gov.uk/ProtectedSites/
[23] https://naturalresources.wales/guidance-and-advice/environmental-topics/wildlife-and-biodiversity/protected-areas-of-land-and-seas/find-protected-areas-of-land-and-sea/?lang=en
[24] Kelly holds a Field Identification Skills Certificate (FISC) Level 4 botanical qualification and holds NRW survey licences for bats, dormice and great crested newts.

used in an 'extended' Phase I habitat survey[25] and entailed recording the main plant species and classifying and mapping habitat types.

A3.5. Additionally, the habitats identified were evaluated for their potential to support legally protected and notable fauna species. Where access allowed, adjacent habitats were also considered in order to assess the site within the wider landscape and to provide information with which to assess possible impacts within the context of the site boundary.

Preliminary Bat Surveys

A3.6. The surveys followed standard methodologies set out in the Bat Mitigation Guidelines[26], the Bat Workers Manual[27] and Bat Surveys for Professional Ecologists- Good Practice Guidelines 4th Edition[28] and comprised:

- Preliminary Roost Assessment (PRA) – External and internal building inspection survey to assess potential of buildings on site to support roosting bats;
- Ground Level Tree Assessment (GLTA) – Ground level inspection of trees to assess potential of trees on site to support roosting bats;
- PRF Aerial Inspection Survey – An elevated search to inspect PRFs in trees either by climbing or the use of equipment such as ladders, MEWPs, or scaffold towers; and
- Day-time Bat Walkover (DBW) – Walkover of the sites to assess potential bat activity including foraging areas and potential commuting routes.

Preliminary Bat Roost Assessment (PBRA)

A3.7. A PBRA was undertaken on all buildings within the Site boundary. The assessment was undertaken on 18th September 2024 by Adam Young, an experienced surveyor who is a technician member of the Arboricultural Association (NRW bat surveyor licence number: S093511/1). All surveys were daytime inspections and the conditions for all surveys was considered optimal. The location of the buildings and trees at the site are shown on **Plan 17163/P07**. All buildings were inspected from the ground using binoculars, high powered torch, digital camera and endoscope for accessible features. In relation to buildings, such signs may include bat droppings, urine splashes, staining and features suitable for allowing bats access to roost (e.g. gaps behind soffits / hanging tiles / ridge tiles, lifted slates / flashing). The internal inspection of the buildings comprised a thorough search for evidence of roosting bats in accessible loft spaces (i.e. droppings, urine stains) and an assessment of the presence of potential roosting features internally.

A3.8. The potential of the buildings and trees to support roosting bats was assessed using the criteria shown in **Table A3.1** below.

[25] Joint Nature Conservation Committee (2010). Handbook for Phase I habitat survey - a technique for environmental audit. JNCC, Peterborough.
[26] Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.
[27] Mitchell-Jones, A.J, & McLeish, A.P. (eds). (2004) 3rd Edition Bat Workers' Manual., JNCC, Peterborough, ISBN 1 86107 558 8
[28] Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition). The Bat Conservation Trust, London. ISBN-978-1-7395126-0-6

Table A3.1. Building / Structure Assessment Criteria - adapted from Collins, 2023.

Suitability	Description of Roosting Habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions[b] and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats[c]).
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions[b] and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed)
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions[b] and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.

[a] Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant'. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute).

[b] For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

[c] Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments. Common pipistrelle swarming has been observed in the UK and winter hibernation of numbers of this species has been detected at Seaton Delaval Hall in Northumberland. This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.

Ground Level Tree Assessment (GLTA) and PRF Aerial Inspection Survey

4.6. A GLTA and PRF aerial inspection survey was undertaken on T275, T276, T283, T284, T297, T298 and T299. The assessment was undertaken on 17th September 2024 by Adam Young. All

surveys were daytime inspections and the conditions for all surveys was considered optimal. The location of the trees at the Site are shown on **Plan 17163/P07**. These inspections were completed by Adam Young, a qualified tree climber holding an NRW bat licence with an assistant present suitably qualified in tree climbing and aerial rescue. Information on the features identified from the ground assessment was gathered from within the tree allowing confirmation on dimensions and exposure to rain. After the inspection, the suitability of the potential roosting feature was re-evaluated.

4.7. All trees were inspected using binoculars, high powered torch, digital camera and endoscope for accessible features. Potential Roosting Features (PRFs) of interest include at detailed in Table A3.2 below.

Table A3.2. PRF Types that can be Exploited by Bats and How they Form - adapted from Collins, 2023.

PRFs formed by disease and decay	PRFs formed by damage	PRFs formed by association
woodpecker holes squirrel holes knot holes pruning cuts tear outs wounds cankers compression forks butt rots	lightning strikes hazard beams subsidence cracks shearing cracks transverse snaps welds lifting bark desiccation fissures frost cracks	fluting ivy

A3.9. The potential of trees to support roosting bats was assessed using the criteria shown in **Table A3.3** below.

Table A3.3. Assessment of Tree Suitability Criteria - adapted from Collins, 2023.

Roost Suitability	Description of Roosting Habitat
NONE	Either no PRFs in the tree or highly unlikely to be any
FAR	Further assessment required to establish if PRFs are present in the tree
PRF	A tree with at least one PRF present

PRF's can be further categorised into the following:

Table A3.4. Guidelines for Categorising Potential Suitability of PRFs – adapted from Collins, 2023.

Suitability	Description
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to their size or lack of suitable surrounding habitat
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony

Day-time Bat Walkover (DBW)

A3.10. A DBW was undertaken on all habitats within the site boundary. The assessment was undertaken on 17th September 2024 by Adam Young. All surveys were daytime inspections and the conditions for all surveys were considered optimal. The DBW assessed habitats on-site for the likelihood to be used by foraging and commuting bats as detailed in **Table A3.5** below. This combined with

desk study records of local bats and bat roosts, and potential for roosting bats on-site is used to determine suitability of the site for bat activity.

Table A3.5. Flight Path and Foraging Habits Assessment Criteria - adapted from Collins, 2023.

Suitability	Description of Roosting Habitats
None	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

Evaluation

A3.11. The evaluation of habitats and species is defined in accordance with published guidance[29]. The scale of importance of each ecological feature is assigned within a defined geographical context, namely international and European, national, regional, county, and local. Below these are features considered to be of negligible importance.

A3.12. Consideration will also be given to legally protected or controlled species which are 'important features' in the context of this assessment, for which mitigation measures are required to ensure

[29] CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.

legal compliance, regardless of their geographic scale of importance. Thus, it is possible for a feature of negligible ecological importance to be legally protected and hence require mitigation.

A3.13. Evaluation is based on various characteristics that can be used to identify ecological features likely to be important in terms of biodiversity. These include site designations (such as Sites of Species Scientific Interest (SSSIs), or for undesignated features, the size, conservation status (locally, nationally or internationally), and the quality of the ecological feature. In terms of the latter, quality can refer to habitats (for instance if they are particularly diverse, or a good example of a specific habitat type), other features (such as wildlife corridors or mosaics of habitats) or species populations or assemblages.

Impact Assessment

A3.14. The assessment of impacts identifies impacts and their effects as a result of the proposed development on important ecological features. This includes consideration of impacts at all relevant stages of the development, including construction and operation/occupation. The assessment includes reference to legislation and policy, and supplementary planning guidance where relevant.

Application of Mitigation Hierarchy

A3.15. Application of the mitigation hierarchy is fundamental to the ecological impact assessment process. This requires consideration of the following measures, in order of priority, for all potential impacts, to determine the most appropriate mitigation, compensation and enhancement strategy for the project. This is taken into account within **Section 3** of this report and set out below:

- Avoidance – measures to avoid harm to ecological features;
- Mitigation – measures to avoid or minimise potential impacts as part of the design or guaranteed by planning controls;
- Compensation – measures required to offset significant residual negative effects following avoidance and mitigation; and
- Enhancement – measures over and above requirements for avoidance, mitigation and compensation to provide biodiversity net gain.

Plan 1: Habitat Features Plan and Preliminary Bat Roost Assessment (17163/P07)



Legend

- Site Boundary
- Target Notes
- Bat Dropping Locations

Phase I Habitats

- A2.1 - Dense Scrub
- B6 - Semi-Improved Neutral Grassland
- A1.1.1 - Broadleaved Semi-Natural Woodland
- J4 - Bare Ground (Hard Standing)
- J3.6 - Buildings
- A3.1 - Scattered Broadleaved Trees
- J2.3.1 - Hedge and Trees (Native Species-Rich)
- J2.3.2 - Hedge and Trees (Species-Poor)

N

0 15 m

Project	17163
Drawing Title	Phase I Habitat Survey
Scale	Scale: 1:800
Drawing No.	[17163/P07]
Date	January 2025
Checked	IH/HM

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