

Preliminary Ecological Assessment



Project: Land Adj to Travancore, Pentwyn Road, Cynonville

Instructed by:

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1. Introduction

The applicant is seeking planning permission for the creation of four semi detached residential dwellings and an access road within the site boundary. The new dwellings and road are proposed along the southern edge of the site and land within the wider site boundary will not be directly affected by works. The development site is centred at SS8267195301.

Habitats within the site boundary were found to consist of marsh grassland, scrub, short perennial vegetation, tarmac and bare earth with woodland located adjacent to the northern and eastern site boundary. This report will assess the potential of the land within the site boundary to support habitats and species and the implications that any future development proposals could have on them.

1.1 Site Description

The site is a parcel of land situated to the north of Pen-Twyn Road in the village of Cynonville, within the Cwm Afan Valley near Port Talbot. The site slopes downwards from south to north and it appears that buildings have previously stood within the site, towards the south of the site boundary, as tarmac and concrete hardstanding and stone walling are present. A residential property sits along the western boundary of the site while its eastern boundary is flanked by broadleaved woodland. Approximately 120 metres north of the site lies the River Afan, and a residential housing estate is situated 60 meters to the southwest which extends westwards along Pentwyn and Percy Road.

The Nant yr Hwyaidd flows approximately 20 east of the site. The Nant yr Hwyaidd flows northwards to meet the River Afan approximately 100m north east of the development site.

The National Cycle Network route 887 is situated approximately 25m north of the site. Furthermore, to the southwest of the site, approximately 650 metres, lies Afan Forest Mountain bike park and mining museum. To the north of the site, approximately 450 metres away, lies a substantial coniferous plantation with areas of felled trees and young saplings. Approximately 2km southeast of the site is Moel Trawsant Mountain.

1.2 Survey Constraints

The absence of desk study records cannot be relied upon to determine absence of particular species/habitat. Often, the absence of records is a result of under-recording within the given search area.

1.3 Surveyor Experience

Aislinn Harris is a full member of Chartered Institute of Ecology and Environmental Management (CIEEM). Aislinn is an ecologist with 14 years experience undertaking a wide range of flora and fauna surveys. All survey work is undertaken following JNCC Phase 1 Survey Guidelines and CIEEM Guidelines for Preliminary Ecological Appraisal (2nd Ed 2017). Aislinn is a licensed bat, Great Crested Newt and Dormouse ecologist with a wide variety of experience undertaking ecological surveys.

1.4 Previous Ecological Survey Work

A Preliminary Ecological Appraisal (PEA) of the development site has been completed by I&G Ecological Consulting in 2022. A site visit was undertaken on the 28th November 2022 and the land within the site boundary was found to contain semi improved grassland, hedgerow, broadleaved woodland, bracken, scrub and tall ruderal habitats. The site was assessed as having the potential to support commuting and foraging bat species, reptile species, Otter, commuting and foraging use by Badger and amphibians.

The development proposals upon which the PEA conclusions and recommendations are based include the creation of six houses within the site boundary and a suitable access road. The report concludes that the habitats on site have moderate ecological value. A reptile mitigation strategy and wildlife friendly lighting are recommended and that bat and bird boxes are included within any new buildings created at site.

2. Desktop Study

A data search was undertaken via Aderyn for the proposed development site and surrounding area (LERC ref: 0256-049). A 1 km buffer zone was searched and records returned are noted below:

- 8 records of Adder (*Vipera berus*)- closest record being approximately 185 m west of site
- Common frog (*Rana temporaria*) - closest record being approximately 392 m north east of site and measured 50 frogs
- Common Lizard (*Zootoca vivipara*) - closest record being approximately 256m north west of site
- Grass Snake (*Natrix helvetica*) - closest record being approximately 757 m north west of site
- 2 records of Palmate Newt (*Lissotriton helveticus*) both records approximately 385 m north east of site. One of these records four newts in a drainage pool on the side of the Afan Mineral Railway
- 5 records of Slow Worm (*Anguis fragilis*) - closest record being 230m to the north west of site
- West European Hedgehog (*Erinaceus europaeus*)- closest record being approximately 460 m south west of the site
- 7 records of Otter (*Lutra lutra*) - 3 of these records note otter spraint findings on the bank of the River Afan less than 200 m north of site
- 12 records of bat commuting and foraging activity were returned within 500 m of the site for Common Pipistrelle (*Pipistrellus pipistrellus*), Brown Long-eared bat (*Plecotus auritus*), Daubenton's Bat (*Myotis daubentonii*), Noctule (*Nyctalus noctula*) and Soprano Pipistrelle (*Pipistrellus pygmaeus*). The closest records being approximately 263 m north east of the site.
- Three records of bat roosts were returned within 500 m of the site for species including: Brown Long-eared Bat (*Plecotus auritus*) and Common Pipistrelle (*Pipistrellus pipistrellus*) species approximately 384 m east of the site in the Former Tabernacle Chapel on Pentwyn Road
- Bird species listed under Section 7 of the Environment (Wales) Act 2016 (EWA 2016) include – Eurasian Skylark (*Alauda arvensis*), Lesser Redpoll (*Acanthis cabaret*), Tree Pipit (*Anthus trivialis*), European Nightjar (*Caprimulgus europaeus*), Cuckoo (*Cuculus canorus*), Common Kestrel (*Falco tinnunculus*), European Pied Flycatcher (*Ficedula hypoleuca*),

Western European Herring Gull (*Larus argentatus subsp. argenteus*), Common Linnet (*Linaria cannabina*), Spotted Flycatcher (*Muscicapa striata*), House Sparrow (*Passer domesticus*), Dunnock (*Prunella modularis*), Bullfinch (*Pyrrhula pyrrhula*), Starling (*Sturnus vulgaris*), and Song Thrush (*Turdus philomelos*)

- Bird species listed under Schedule 1 of the Wildlife & Countryside Act 1981 (WCA1.1) include –Fieldfare (*Turdus pilaris*)
- Records of Common Bluebell (*Hyacinthoides non-scripta*) approximately 263 m north east of site

Records of note returned for the rest of the 1 km buffer zone are detailed below:

- Brown Hare (*Lepus europaeus*).
- Pine Marten (*Martes martes*)
- Brown Sea Trout (*Salmo trutta*)
- Flowering plants species of Conservation Concern within the 1km buffer include: *Meconopsis cambrica*, *Mentha arvensis* and *Pyrola rotundifolia subsp. maritima*
- 10 records of invertebrate species of note were returned within 1 km of the site. The closest species include: Small Heath (*Coenonympha pamphilus*), Wall (*Lasiommata megera*), Cinnabar (*Tyria jacobaeae*), Brindled Beauty (*Lycia hirtaria*), Buff Ermine (*Spilosoma lutea*), White Ermine (*Spilosoma lubricipeda*), Small Pearl-bordered Fritillary (*Boloria selene*) and Dingy Skipper (*Erynnis tages*)
- Harlequin Ladybird (*Harmonia axyridis*)
- Grey Squirrel (*Sciurus carolinensis*).

2.1 Protected Sites

A data search for species records was undertaken for the proposed development site and surrounding area up to a 1km buffer. The search also considered statutory and non-statutory protected sites.

Statutory Protected Sites

There are no statutory protected sites within 1km of the proposed development site.

Non Statutory Protected Sites

There are four Sites of Interest for Nature Conservation (SINCs) within 1 km of the site. The closest site being NPT Ancient Semi Natural Woodland which appears to lie adjacent to the eastern boundary and the Afan Mineral Railway SINC which lies adjacent to the northern site boundary. Another area of NPT Ancient Semi Natural Woodland SINC is located approximately 15m to the south east of site, separated by Pentwyn Road. Figure 1 below indicates the proximity of the development site to SINC within the immediate area.



Figure 1 - Site Boundary & Adjacent SINC habitat

The Afan Mineral Railway SINC is notified for its native woodland, open mosaic habitats and invertebrate population.

The NPT Watercourse SINC designation appears to cover the whole of Neath Port Talbot, however it is believed the SINC designation should match the watercourses which flow through the county instead. The River Afan is located approximately 120m north of site at its closest point. The river flows roughly east to west across the wider landscape.

There are nine areas of Ancient Semi Natural Woodland (ASNW) within 1 km of the site boundary. The closest being the woodland directly adjacent to the eastern boundary of the site. This area of woodland is also designated as NPT Ancient Semi Natural Woodland SINC.

These are broadleaf woodlands comprising mainly native tree and shrub species which are believed to have been in existence for over 400 years. The ground vegetation will reflect the naturalness of these woodlands and will frequently feature species which provide clear indication of long and continued woodland cover. They will have been woodland for centuries and contribute substantially to our natural and cultural heritage. Figure 2 below indicates the proximity of the development site to ASNW within the immediate area.



Figure 2 - Site Boundary & Adjacent ASNW habitat

There are two areas of Restored Ancient Woodland Sites within 1 km of the site boundary. These are woodlands which are predominately broadleaved now and are believed to have been continually wooded for over 400 years. They will have gone through a phase when canopy cover will have been more than 50% non-native conifer tree species and now have a canopy cover of more than 50% broadleaf. The closest such site is approximately 860 m to the south west of site.

There are ten areas of Plantation on Ancient Woodland Site. These are sites which are believed to have been continuously wooded for over 400 years. They have been replanted with native or non-native species, most commonly with conifers. They currently have a

canopy cover of more than 50% non-native conifer tree species. They will have varying levels of remnant features of ASNW. The closest area being 100 m north east of the site.

There are ten NRW Priority habitat areas (Woodland PAWS), these are large scale areas which were prioritised for targeted conservation work, based on factors including the habitats within them. The closest area being 100 m north east of the site.

There are no Tree Preservation Orders within the site.

2.2 Potential Impacts to Protected Sites

The proposed development site is located adjacent to the NPT Ancient Semi Natural Woodland SINC and Afan Mineral Railway SINC. The NPT Ancient Semi Natural Woodland SINC runs along the eastern boundary of the white while the Afan Mineral Railway SINC is located along the northern boundary. The current proposed layout for the development is the creation of semi detached residential houses, garden space and an access road along the southern boundary of the site. **Based on the current development proposals there will be no direct impact to any SINC habitat.**

Policy EN7 of Neath Port Talbot Local Development Plan states '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 of 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 feature has been taken into account and where removal is unavoidable, mitigation measures are agreed. The NPT Ancient Semi Natural Woodland SINC is also designated as an area of ASNW.

The woodland along the eastern boundary of the site is designated as ASNW. Natural England guidance advises that a buffer zone of at least 15m from the boundary of ancient woodland should be implemented to avoid impacts to the integrity of the woodland habitat. **Therefore, a 15m buffer between the ASNW and closest edge of development is recommended.**

Given the proximity of the River Afan and Nant yr Hwyaidd consideration to suitable drainage measures within the development proposals must be given. The site slopes downwards from south to north and its likely that the marshy grassland to the north of the development area will rely on water movement through the site. A SUDS that provides some natural treated water run off north wards would be welcomed. No direct water discharge into either the River Afan and Nant yr Hwyaidd should be proposed. This will avoid habitat loss via the

engineering works to connect the outfall and also avoid possible pollution incidents within the watercourses.

Whilst there is unlikely to be any direct impacts to protected sites in the area, indirect impacts via lighting and drainage considerations must be considered. A wildlife friendly lighting strategy will be required as part of the development proposals. Measures to deal with grey and foul water will be required. No water should be discharged into local watercourses without adequate treatment to ensure no negative impact to water quality.

3. Phase 1 Survey

3.1 Habitats

A walkover survey of the site was completed on the **24th April 2025**. A species list can be found in Appendix 1, photographs of the site can be found in Appendix 2 and a map of the habitats found within the site is provided in Appendix 3.

A band of dense **scrub** is present along the eastern, northern and western edges of the site. The scrub is starting to encroach into the interior habitats of the site. Species noted within the scrub habitat include bramble, gorse, mugwort, rosebay willowherb, willow, bracken, sycamore, birch and buddleja. **Scattered scrub** is starting to encroach across the remaining grassland habitats within the site boundary.

Along the southern boundary of the site is a **tree line**. The **tree line** appears to have at one time been a hedgerow as there is evidence it has been laid in the past. Species within the tree line include hazel, holly, possibly crab apple, hawthorn and ivy.

A small section of **stone walling** is present to the north of the bare ground. Given the formation of the walling it perhaps indicates a previous site boundary. A species of cotoneaster and what appeared to be variegated yellow archangel were noted in the vegetation south of the stone wall. These species are typical ornamental species used within gardens. A **log pile**, indicative of historic small scale tree clearance, is present along the southern boundary. A small area of **concrete slabs** are present at the south western corner of the site, near the entrance.

An area of **tarmac hardstanding** is present along the southern boundary of the site which sweeps northwards to a hammer head turning. The **tarmac hardstanding** is degraded with species starting to colonise the surface making it unclear the full extent. To the east of the tarmac turning area is an area of **concrete hardstanding**. The **concrete hardstanding** is also degraded and being colonised by vegetation.

The grassland towards the south of the site is higher than the remaining ground which slopes down towards the north. The southern portion of the site appears to have been disturbed in the recent past as **bare ground** is present to the south west of the site. **Scrub** is encroaching across the grassland habitat as well making it difficult to assess the extent of such habitat. The southern areas of grassland are considered to be **semi improved grassland** based on the April site visit. However the presence of meadow vetchling indicates the grassland could be neutral grassland.

Species noted within the **semi improved grassland** include birds foot trefoil, a species of clover, tufted hair grass, broadleaved dock, ribwort plantain, lesser Celandine, germander speedwell, creeping buttercup, a species of vetch, yorkshire fog, dandelion, meadow

vetchling, field woodrush, common dog violet. Nettle, a species of forget-me-not and a species of bent grass.

An areas of **marshy grassland** is considered to be present within the northern half of the site. Scrub is encroaching into the **marshy grassland** areas making it difficult to assess the extent of such habitat. As the site visit was completed in April, many indicator species are not in flower, however given the dominance of hard rush and presence of at least one sedges within the sward this area is considered to be marshy grassland. Species noted within the sward include meadow vetchling, greater trefoil, hard rush, broadleaved dock, ribwort plantain, common knapweed, cocksfoot, false oat grass, meadow buttercup, tormentil, tufted hair grass, hogweed, at least one species of sedge, Angelica and wood avens.

3.2 Great Crested Newts (GCN)

Great crested newts (*Triturus cristatus*) are a European protected species and are protected under the Conservation of Habitats and Species Regulations 2017. In summary, they are protected from:

- Deliberate capture, killing and injuring,
- Deliberate disturbance of a breeding site or resting place,
- Deliberate taking or destroying of eggs,
- Damage or destruction of a breeding site or resting place.

Great crested newts (GCN) are listed on schedule 5 of The Wildlife & Countryside Act 1981 which protects them from intentional or reckless disturbance or obstruction when using a structure or place for shelter and / or protection. It is also an offence to sell, offer or expose for sale a GCN. GCN and Common toad are listed in section 7 of the Environment (Wales) Act 2016 which makes them key species to sustain and improve biodiversity.

There are no records of GCN within 1 km of the site.

The grassland and scrub found within the development site has some potential to be used by amphibians, such as GCN, during their terrestrial life stages.

GCN generally like to have a necklace of suitable waterbodies for breeding purposes within a local area. There is no waterbody within the site boundary and no suitable, standing waterbodies within close proximity to the site apparent when reviewing aerial maps. The potential presence of ponds within woodland areas and residential gardens cannot be discounted.

Given the lack of local GCN records and lack of suitable aquatic habitat within 500m of the proposed development it is considered highly unlikely that GCN are present within the site boundary. **No further surveys are recommended for this species.**

3.3 Dormouse

The Dormouse (*Muscardinus avellanarius*) is a European protected species and is protected under the Conservation of Habitats and Species Regulations 2017. In summary, they are protected from:

- Deliberate capture, killing and injuring,
- Deliberate disturbance of a breeding site or resting place,
- Damage or destruction of a breeding site or resting place.

Dormouse is listed on schedule 5 of The Wildlife & Countryside Act 1981 which protects them from intentional or reckless disturbance or obstruction when using a structure or place for shelter and / or protection. It is also an offence to sell, offer or expose for sale a native dormouse. Dormouse is listed in section 7 of the Environment (Wales) Act 2016 which makes them a key species to sustain and improve biodiversity.

There are no records of dormouse within 1km of the site.

The grassland within the site is considered to be unsuitable for use by dormouse as it provides no cover from predation or foraging habitat. The scrub and adjacent woodland areas within the site boundary are considered suitable for dormouse use. The site has excellent habitat connectivity to wider areas of woodland via the riparian corridors of the River Afan and Nant yr Hwyaidd.

The development proposals focus on the southern portion of the development site. The scrub habit in this portion of the site is less dense, being scattered across the grassland habitat. The scattered scrub habitat is not dense enough to provide cover for use by dormouse. The scrub along the eastern boundary of the site is dense, however this should not be affected by construction works as a buffer is required between the edge of development and the ASNW and NPT Ancient Semi Natural Woodland SINC.

Given the limited impact the development proposals are likely to have upon habitat suitable for dormouse use, dormouse surveys are not recommended in this instance. Instead it is suggest a suitable development layout which retains scrub habitat and habitat connectivity around the site boundary is created. **Construction works will need to be informed by precautionary measures which avoid impacts to dormouse suitable habitat.**

3.4 Bats

All British bats are a European protected species and are protected under the Conservation of Habitats and Species Regulations 2017. In summary, they are protected from:

- Deliberate capture, killing and injuring,
- Deliberate disturbance of a breeding site or resting place,
- Damage or destruction of a breeding site or resting place.

Schedule 5 of The Wildlife and Countryside Act (1981) also protects all species of British bat and their roosting locations. British bats are protected from intentional or reckless disturbance and or obstruction of their roosting places. Barbastelle, Bechstein, Noctule, Brown long-eared, Common pipistrelle, Soprano pipistrelle, Greater horseshoe and Lesser horseshoe are also listed in section 7 of the Environment (Wales) Act 2016 which makes them a key species to sustain and improve biodiversity.

12 records of bat commuting and foraging activity were returned within 500 m of the site for Common Pipistrelle (*Pipistrellus pipistrellus*), Brown Long-eared bat (*Plecotus auritus*), Daubenton's Bat (*Myotis daubentonii*), Noctule (*Nyctalus noctula*) and Soprano Pipistrelle (*Pipistrellus pygmaeus*). The closest records being approximately 250 m north east of the site.

Three records of bat roosts were returned within 500 m of the site for species including: Brown Long-eared Bat (*Plecotus auritus*) and Common Pipistrelle (*Pipistrellus pipistrellus*) species approximately 380 m east of the site in the Former Tabernacle Chapel on Pentwyn Road

Habitat Assessment

The habitat within the site is considered to have **moderate** suitability for use by commuting and foraging bats. The woodland along the north and eastern boundary has connectivity into the wider landscape via the River Afan and Nant yr Hwyaidd. The scrub and scattered scrub within the site boundary, in conjunction with the adjacent woodland, provide sheltered areas that bats can use for foraging. There appears to be limited light spill into the interior of the site at the hedgerow along the southern boundary of the site shields on lighting from Pentwyn Road.

The development proposals focus on the southern edge of the overall development site, ensuring that much of the marshy grassland and scrub habitat is retained. A wildlife friendly lighting strategy will be required as part of the development proposals. It will be important to design the scheme to prevent light spill onto retained vegetation to the north and east of the site. Recent Bat Conservation Trust (BCT) guidance would advise desired illuminance levels for a feature to be considered dark would be at or below 0.2 lux on a horizontal plane and 0.4 lux on a vertical plane.

No further survey recommendations are made providing a lighting strategy can be designed that avoids light spill north and eastwards onto retained natural habitat.

Tree Assessment

A cursory ground level check for any potential bat roosting features (PRFs) was undertaken during the site visit. Should any tree be considered likely to have above low potential for roosting bat use, further detailed survey work will be recommended following the ground based visual assessment methodology provided in the BCT Survey Guidelines 2023 (4th Ed).

The trees within the interior of the site boundary were young and formed part of the scrub habitat around the periphery of the site. The trees within the hedgerow habitat along the southern boundary were also fairly young having an average circumference of approximately 20cm. No gaps or cracks suitable for bat roosting use were noted within any tree. **No further survey work for bat roosting use of trees is recommended.**

Building Assessment

No buildings are present within the site boundary.

3.5 Otters

The Otter (*Lutra lutra*) is a European protected species and is protected under the Conservation of Habitats and Species Regulations 2017. In summary, they are protected from:

- Deliberate capture, killing and injuring,
- Deliberate disturbance of a breeding site or resting place,
- Damage or destruction of a breeding site or resting place.

Otter are listed on schedule 5 of The Wildlife & Countryside Act 1981 which protects them from intentional or reckless disturbance or obstruction when using a structure or place for shelter and / or protection. It is also an offence to sell, offer or expose for sale an otter. Otter is listed in section 7 of the Environment (Wales) Act 2016 which makes them a key species to sustain and improve biodiversity.

There are a small number of otter records within the local area and all records returned via the data search are associated with the River Afan. The closest record for otter is approximately 200m to the north of site and is for field signs along the River Afan

Otters tend to prefer secluded locations for their holts to help prevent them being disturbed by other animals. It is accepted that otters can travel long distances from river corridors to find acceptable holt sites.

The site is considered to be broadly unsuitable for otter as the grassland and scattered scrub habitat provide little cover for holt creation. However the denser scrub around the periphery of the site and the adjacent woodland are all considered very suitable for otter use. The proposed development site has direct habitat connectivity with River Afan to the north and the Nant yr Hwyaidd to the east. The riparian corridor of both watercourses provides excellent habitat connectivity into the wider landscape.

The site appears to be subject to little disturbance. No evidence of mammal movement through the site was noted during the survey visit.

As the development proposals focus on the southern portion of the development site, closest to roads and adjacent residential properties there will be no direct impact to the scrub and trees that border the site. The presence of a SINC and ASNW along the eastern boundary of the site will require a 15m buffer between the habitat and development. This will help reduce the impacts of noise and light disturbance. The development proposals are likely to increase lighting within the site. **No further survey recommendations are made providing a lighting strategy can be designed that avoids light spill north and eastwards onto retained natural habitat.**

3.6 Badger

Badgers (*Meles meles*) are protected under the Protection of Badgers Act 1992. In summary they are protected from:

- Taking, killing or injuring;
- Cruelty;
- Interfering with a badger sett;
- The selling and possession of badgers;
- Marking or ringing.

Badgers are also listed on schedule 6 of the Wildlife and Countryside Act 1981 as amended.

Badgers tend to have a variety of setts with different uses and functions within the territory for the family unit. In general there is usually a main sett which the family will use the most. There are then annex, subsidiary and or outlier setts which depending on family structures and environmental pressures may be used at different times of the year. As female Badgers tend to have their cubs over winter the disturbance and damage of Badger setts is prohibited between December and June inclusive. NRW are the licensing body for any actions which may contravene the above legislation.

Badgers favour a dry sloping site for digging their setts preferably within woodland or even under a large hedgerow bank. Badgers are creatures of habit and tend to follow regular pathways between their setts and foraging grounds.

There are no records of Badger within 1km of the site. This is thought likely due to under recording rather than a lack of such species within the area.

All habitats within the site are suitable for foraging and commuting badger. However no evidence of badger presence i.e mammal paths, latrines, snuffle holes or hair were noted during the site visit. The dense scrub and woodland around the periphery of the site appear suitable for badger to use. Access further into the vegetation was not possible due to its density.

As the development proposals focus on the southern portion of the development site, closest to roads and adjacent residential properties, there will be no direct impact to the scrub and trees that border the site. The presence of a SINC and ASNW along the eastern boundary of the site will require a 15m buffer between the habitat and development. This will help reduce the impacts of noise and light disturbance.

It is presumed that badger could utilise the proposed development site, on occasion, for commuting and foraging purposes. **No further survey recommendations are made for this species.**

3.7 Birds

All breeding birds are protected under schedule 1 of the Wildlife and Countryside Act (1981) as amended. Under this Act it is an offence to:

- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built.
- Intentionally take or destroy the egg of any wild bird.

Enhanced protection is afforded to species listed on Schedule 1 of the Act, this additional protection makes it an offence to:

- Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

The tree line, scrub and trees which bound the site around are considered suitable for nesting bird use. All habitats within the site boundary are considered suitable for foraging use by local bird species.

A precautionary approach to the removal of any vegetation with bird nesting potential will be required and a check of the building structures roof for any active nests will be required prior to any works within close proximity taking place. Compensation measures for the loss of any vegetation that is suitable for bird foraging or nesting will be required.

3.8 Reptiles and Amphibians

Reptiles such as the Slow-worm, Common lizard, Adder and Grass snake are protected under the Wildlife and Countryside Act 1981 (as amended). They are protected from killing, injuring and sale. They are protected from killing, injuring and sale. They are also listed in section 6 of The Environment (Wales) Act 2016.

The four widespread species of amphibian i.e. the Smooth and Palmate newts, Common frog and Common toad, are protected under the Wildlife and Countryside Act 1981 (as amended) by Section 9(5) of the Wildlife and Countryside Act 1981. This section prohibits sale of these species. Common toad is listed in section 6 of The Environment (Wales) Act 2016.

The closest reptile record to site is for adder located approximately 185m west of the development site. The closest amphibian record to site is for 385m to the north east of site and is for Palmate Newt.

Common amphibian species require still pools of water for breeding purposes and damp conditions with foraging habitat during their terrestrial life stages. Due to the lack of standing water within the site it is highly unlikely that amphibians will utilise the site for breeding. However they may use it for commuting, and foraging purposes.

Reptiles prefer a mosaic of habitats with diverse vegetation structure creating open areas and nearby cover to provide protection from predators and the elements. The mosaic of bare ground, grassland, scrub and tree line / woodland within the site creates suitable reptile habitat. The marshy grassland is considered to be wet most of the year which may make it less suitable for large numbers of reptiles but it is still suitable for use.

The site has direct habitat connectivity to the north, north west and east of the site. The development proposals focus on the southern portion of the site only meaning that the majority of habitats within the site boundary will be retained during and post development works. Consideration to the need for reptile surveys has been given. **Providing the development proposals are informed by a reptile mitigation strategy to minimise habitat loss, the construction footprint including engineering works and provide enhancement features for reptiles within the site boundary, reptile surveys are not recommended in this instance.**

3.9 Other Mammals

Other notable mammal species listed under Section 7 of the Environment (Wales) Act 2016 which had records returned during the data search included Hedgehog, Brown Hare and Pine Marten.

Brown Hare - closest record is located approximately 950m to the west of site. This species is considered unlikely to be present within the site as it present more open grassland / farmland habitat.

Hedgehog - closest record is located approximately 420m to the south west of site. This species is considered likely to be present within the site at least on an occasional basis for foraging and commuting purposes. Hedgehog is considered to be a species of principal importance, for the purpose of maintaining and enhancing biodiversity in relation to Wales. As such consideration must be given to this species in any plans proposed for the site.

Pine Marten - closest record is located approximately 530m to the west of site. This species is considered likely to be present within the site at least on an occasional basis for foraging and commuting purposes. Pine Marten is considered to be a species of principal importance, for the purpose of maintaining and enhancing biodiversity in relation to Wales. As such consideration must be given to this species in any plans proposed for the site.

3.10 Invertebrates

Given the presence of the Afan Mineral Railway SINC which is designated in part for it invertebrate populations, there is a lack of invertebrate records within the local area. 10 records of invertebrate species of note were returned within 1 km of the site. The closest species include: Small Heath (*Coenonympha pamphilus*), Wall (*Lasiommata megera*), Cinnabar (*Tyria jacobaeae*), Brindled Beauty (*Lycia hirtaria*), Buff Ermine (*Spilosoma lutea*), White Ermine (*Spilosoma lubricipeda*), Small Pearl-bordered Fritillary (*Boloria selene*) and Dingy Skipper (*Erynnis tages*). The closest record is for Small Pearl-bordered Fritillary approximately 350m north east of site.

The mosaic of habitats present within the site boundary are considered suitable for use by a range of invertebrate species. Mosaic habitats are important for invertebrates as many require two or more habitats to complete their lifecycle. The marshy grassland and bare earth areas are likely to be of particular importance for local invertebrate species. However it must be noted that the habitats within the site are in a state of succession and that scrub species are encroaching across the site. Without management, the grassland habitats and bare earth will most likely disappear in a few short years.

The habitats of the site were assessed for their potential to support invertebrates using the Invertebrate Habitat Potential Assessment (IHPA) as found in CIEEM in practice Issue 112,

June 2021. See table 1 for results. The IHPA protocol has been produced to allow ecologists without specialised entomological expertise to identify key habitats and features likely to support important invertebrate assemblages. Full details of habitat types can be found in Appendix 5.

Based on the Invertebrate Habitat Potential Assessment (IHPA) the site, in its current state, is considered to have potential to support a wide range of common species of invertebrate throughout the year.

Table 1. Invertebrate Habitat Potential Assessment

Habitat Element	Grade
Decaying Wood – H1	D - Minor
Rotational Management – H2	E- Absent
Nectar Resources – H3	C- Moderate
Wet Substrates – H4	D - Minor
Other Water Habitats – H5	E- Absent
Structural Patchwork – H6	C- Moderate
Still Air (S) – H7	D - Minor
Still Air (H) – H8	D - Minor
Connectivity – H9	C- Moderate
Ecoclines – H10	C- Moderate
Bare Earth – H11	D - Minor

As the development proposals seek to retain that majority of habitats within the site boundary, **no further survey work is recommended for invertebrates at this time**. However, steps must be incorporated into the new site design to create and enhance habitats that encourage invertebrate populations. Enhancements should be incorporated within the final development, such as pollinator friendly planting and bug hotels. Management of the retained marsh grassland habitat would be welcomed.

4. Recommendations and Mitigation

The applicant is seeking planning permission for the creation of four semi detached residential dwellings and an access road within the site boundary. The new dwellings and road are proposed along the southern edge of the site and land within the wider site boundary will not be directly affected by works.

The development site boundary sits adjacent to the NPT Ancient Semi Natural Woodland SINC along the eastern boundary, and the Afan Mineral Railway SINC along the northern boundary. An area of designated ASNW is also present along the eastern boundary of the site. The River Afan and the Nant yr Hwyaidd are present within close proximity of the overall site. Whilst there will be no direct impacts, the development design must consider potential impacts to these features of importance for wildlife.

Government guidelines advise a 15m buffer between areas of ASNW and any development. While there is no clear guidance of buffers between SINC and development a suitable buffer must be provided to ensure the integrity of the SINC is not negatively affected.

Broad recommendations are made below to help inform the planning process. These recommendations are made on the understanding that the development proposals will only affect the southern portion of the site. Our recommendations are:

- **A 15m buffer between the ASNW and NPT Ancient Semi Natural Woodland SINC along the eastern boundary of the site will be provided.**
- **Pollution measures must be put in place to avoid any impacts on the nearby Nant yr Hwyaidd to the east of the site.** All machinery used during any on-site works must be stored in an agreed location away from the north of the site. Spill kits must be kept on site at all times to deal with any fuel, oil or material spills. All machinery will be kept in a bunded, water-tight storage compound to prevent spills. The storage compound must be at least 10m away from any surrounding watercourse. Ideally machinery should be placed upon hardstanding areas that are already present within or adjacent to the site.
- **A Reptile Mitigation Strategy will be required to inform the development proposals.** The reptile mitigation strategy must include, but not be limited to:
 - Sensitive timing of vegetation clearance
 - Measures to protect and retain habitat to the north of the site including an agreed location for any site compound within the southern half of the site
 - Two stage vegetation cut
 - Enhancement measures within the site boundary and wider development site boundary

- **Any tree or scrub removal must be completed outside of the bird nesting season of March to August inclusive.** If this is not achievable an ecologist must inspect any habitat with the potential for birds to be present, for active birds' nests prior to any works beginning. If an active nest is identified a buffer zone of at least 5 m around the nest must be observed until the chicks have fledged. Only then can the vegetation be cleared. Greater buffer zones around nests may be required depending on the species and habitat the nest is within.
- Ideally all excavations within the site will be securely covered over if left unattended. Any excavations that have a depth in excess of 0.5 m and that are left open overnight will have a means of escape let for any mammals (e.g. hedgehog) that may fall into them. A wooden board or equivalent will be left from the bottom to the top of the hole at an angle no steeper than 45 °. This will allow any mammal to escape and avoid increased stress from being trapped.
- **Careful consideration must be given to the use of lighting within the development site,** as this can adversely affect the activity of a variety of fauna, particularly foraging bats, nesting birds and badger. Light spillage into adjacent semi-natural habitats must be avoided and brightness kept to the lowest permissible level in the areas adjacent to such habitats. All lighting must meet recommendations in the BCT Guidance Note 08/23 Bats and Artificial Lighting at Night. <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>.
- Invasive non native species (INNS) were identified adjacent to the site. A species of cotoneaster and variegated yellow archangel were noted within the development site. Measures must be taken to prevent further spread into the surrounding countryside or onto site. The location of the plants will be flagged with bamboo canes and tiger tape. The vegetation will not be removed from site to prevent the spread of these species. Good practice biosecurity for ecologists and environmental managers can be found in CIEEM in practice Issue 112, June 2021.
- Consideration to species to plant within the development site boundary must be given. Any landscape proposals must avoid the use of aggressive and non native species to prevent any escapees into the adjacent woodland habitats.

5. Biodiversity Enhancements & Green Infrastructure

The Environment Act (Wales) 2016 places a duty on competent authorities and councils to conserve and enhance biodiversity. Chapter 6 of Planning Policy Wales (version 12), paragraph 6.2.5 requires Green Infrastructure considerations to be included with all planning applications. Development proposals must detail how green infrastructure considerations which are proportionate to the scale and nature of the plans are being provided.

Green infrastructure currently within the development site takes the form of semi-improved grassland, marshy grassland, scattered scrub, scrub and a tree line. The development site has direct habitat connectivity to the wider landscape with woodland sitting directly adjacent to the north and east of the site. The River Afan is located approximately 100m to the north east of site and flows roughly east to west across the wider landscape. The Nant yr Hwyaid is located approximately 20m to the east of site and flows south to north through the wider landscape. The riparian corridors of both these features provide excellent habitat connectivity across the local area.

The development proposals focus on the southern portion of the site boundary and seek to maintain much of the natural habitat within the site boundary. General considerations to green infrastructure and biodiversity enhancements to be considered as part for the development include:

- Paragraph 6.4.42 of Planning Policy Wales (version 12) requires that **at least three trees of a similar type and compensatory size are planted for every tree lost**. The site layout should avoid tree loss where possible. If loss is unavoidable, space within the site boundary and development plans to allow a suitable amount of compensatory planting is required.
- A 15m buffer zone between adjacent ASNW and SINC habitat is recommended. The buffer zone could benefit from some native tree and shrub planting and long term management to create a ecotone edge habitat. This would protect the ASNW and SINC and naturally prevent human access to the adjacent woodland areas.
- The use of soft landscaping to soften boundary features would be a welcome enhancement to the site. Native tree and hedgerow planting along with long term management would help to create screening around individual units for privacy and also integrate the development into the landscape. To be considered and enhancement features, tree and hedgerow planting must be above that required as habitat compensation for direct habitat loss.
- To help enhance the habitats retained to the north of the development area some long term management would be beneficial. An annual clearance of scattered scrub

from the marshy grassland habitat would help open up and maintain the grassland. The dense scrub fringe around the site should be maintained as its a valuable habitat in its own right but also creates an ecotone edge to adjacent woodland.

- Marshy grassland benefits most from grazing but given the location and relatively small size of the site this is unlikely to be a practical long term management aim. Instead a long term mowing regime of the area would be beneficial to floral diversity. Whilst the grassland is sloping its not overly steep and therefore access to machinery for an annual cut should be practical.
- The creation of a small number of bare earth scrapes within the remaining habitat to the north of the development area would provide additional habitat for invertebrates to use. Small scrapes, approximately 1m by 2m, could be created on a bi annual basis at different locations across the site. This will help create a habitat mosaic which benefits a range of wildlife.

The below bullet points are some simple measures that could be achieved to enhance the biodiversity of the development site:

- The use of integrated bat and bird box within any new buildings created on site is recommended. Integrated boxes must be built into the block work of the building and placed as high as possible on a suitable elevation, no lower than eaves level.
- All fencing across the site must be hedgehog friendly in design. A friendly design is considered to allow passage of small animals across the site. Close board or mesh fencing should provide either a continuous gap between the bottom of the fence and ground of approximately 13 cm or 13 cm by 13 cm gaps cut every 3 m along fencing.
- A reptile hibernacula can be created within the grounds of the development site using rubble from on site clearance works. The hibernacula must at least measure 0.5 m in depth, 2 m wide and 2 m long each. It will be made by creating layers of wood, brash, rubble and soil. The hibernacula will create a mound approximately 0.3 m above ground level which will be covered over with soil and seeded using a native seed mix. A diagram of a Reptile hibernacula is located in appendix 6 for reference.

Appendix 1 – Plant Species Recorded

Common Name	Scientific Name
Angelica	<i>Angelica sylvestris</i>
Wood avens	<i>Geum urbanum</i>
broad leaved dock	<i>Rumex obtusifolius</i>
Ivy	<i>Hedera helix</i>
Germander speedwell	<i>Veronica chamaedrys</i>
Meadow buttercup	<i>Ranunculus acris</i>
Creeping buttercup	<i>Ranunculus repens</i>
Vetch sp	<i>Vicia sp</i>
Lesser Celandine	<i>Ficaria verna</i>
Mugwort	<i>Artemisia vulgaris</i>
Nettle	<i>Urtica dioica</i>
Forget me not sp	<i>Myosotis sp</i>
Common dog violet	<i>Viola riviniana</i>
daisy	<i>Bellis perennis</i>
dandelion	<i>Taraxacum lacistophyllum</i>
false oat-grass	<i>Arrhenatherum elatius</i>
Meadow vetchling	<i>Lathyrus pratensis</i>
herb-robert	<i>Geranium robertianum</i>
Field woodrush	<i>Luzula campestris</i>
Hard rush	<i>Juncus inflexus</i>
Clover sp	<i>Trifolium sp</i>
ribwort plantain	<i>Plantago lanceolata</i>
rosebay willowherb	<i>Chamerion angustifolium</i>
Knapweed	<i>Centaurea nigra</i>
Birds foot trefoil	<i>Lotus corniculatus</i>
Greater trefoil	<i>Lotus pedunculatus</i>
Hogweed	<i>Heracles sphondylium</i>
cock's foot	<i>Dactylis glomerata</i>
Tufted hair grass	<i>Deschampsia cespitosa</i>
Wood false brome	<i>Brachypodium sylvaticum</i>
Yorkshire fog	<i>Holcus lanatus</i>
Tree & Shrub Species	
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Crab apple	<i>Malus sylvestris</i>
Holly	<i>Ilex aquifolium</i>

Bramble	<i>Rubus fruticosus</i>
Buddleja	<i>Buddleja daviddi</i>
Sycamore	<i>Acer pseudoplatanus</i>
Willow	<i>Salix sp</i>
Gorse	<i>Ulex europaeus</i>

Appendix 2 – Site Photographs



Southern boundary looking east



Bare earth looking west across site



Eastern boundary looking north



Tarmac turning area to south of site



Site looking north west
V1.0



View of stone walling



Site looking southwards



Scrub & adjacent woodland along northern site boundary



Scrub to west of site



View of marshy grassland



Bare ground to south west of site, by entrance



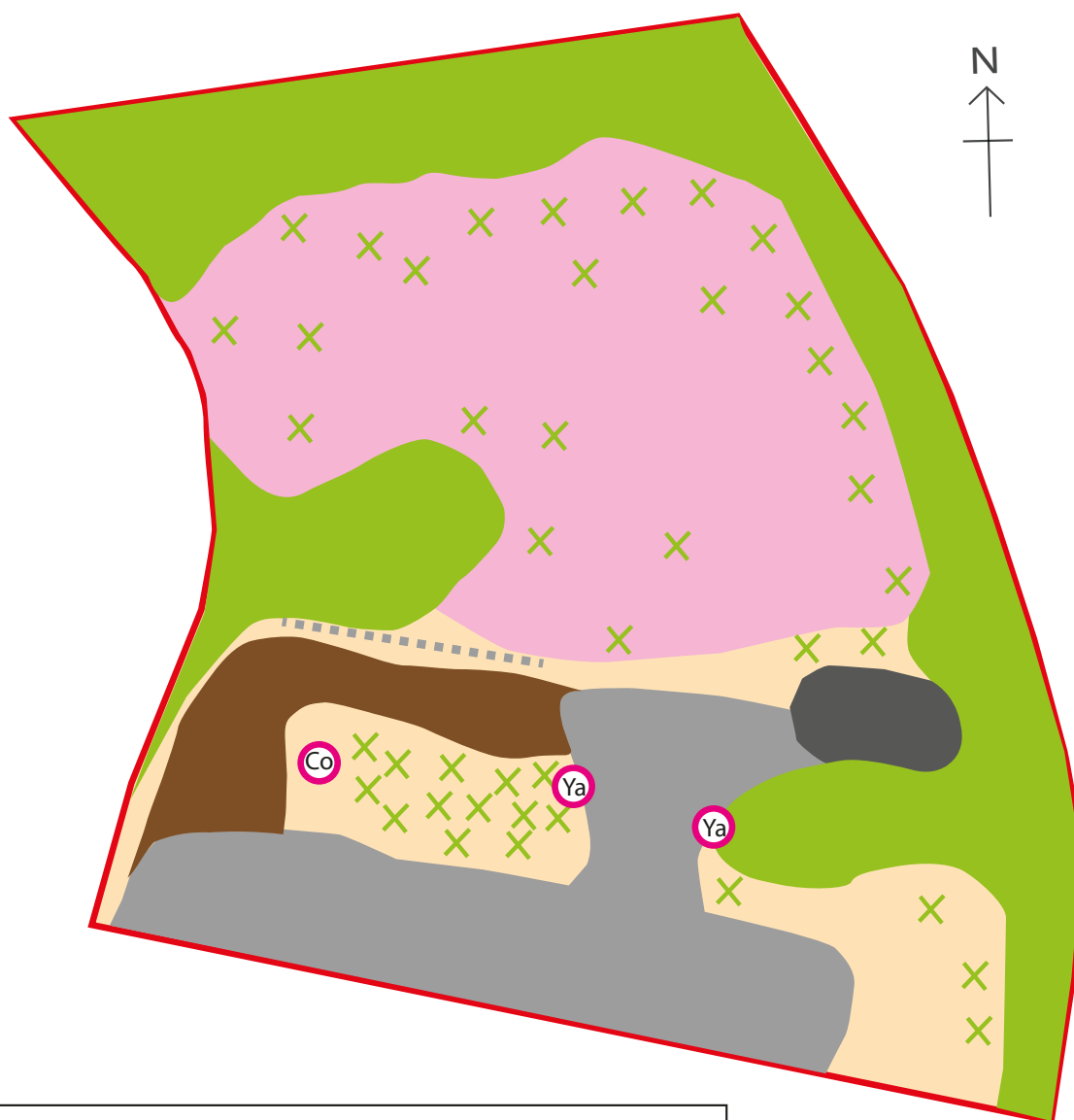
Current site access along southern boundary

Appendix 3– Site Habitat Map

LAND ADJ TO TRAVANCORE, PENTWYN
ROAD, CYNONVILLE

Habitat Map

April 2025



	Scrub		Approx. Location of Varigated Yellow Archangel
	Semi Improved Grassland		Approx. Location of Cotoneaster
	Tarmac Hardstanding		Scattered Scrub
	Concrete Hardstanding		Stone Wall
	Marshy Grassland		Site Boundary

Appendix 4- Aerial View of Site Location

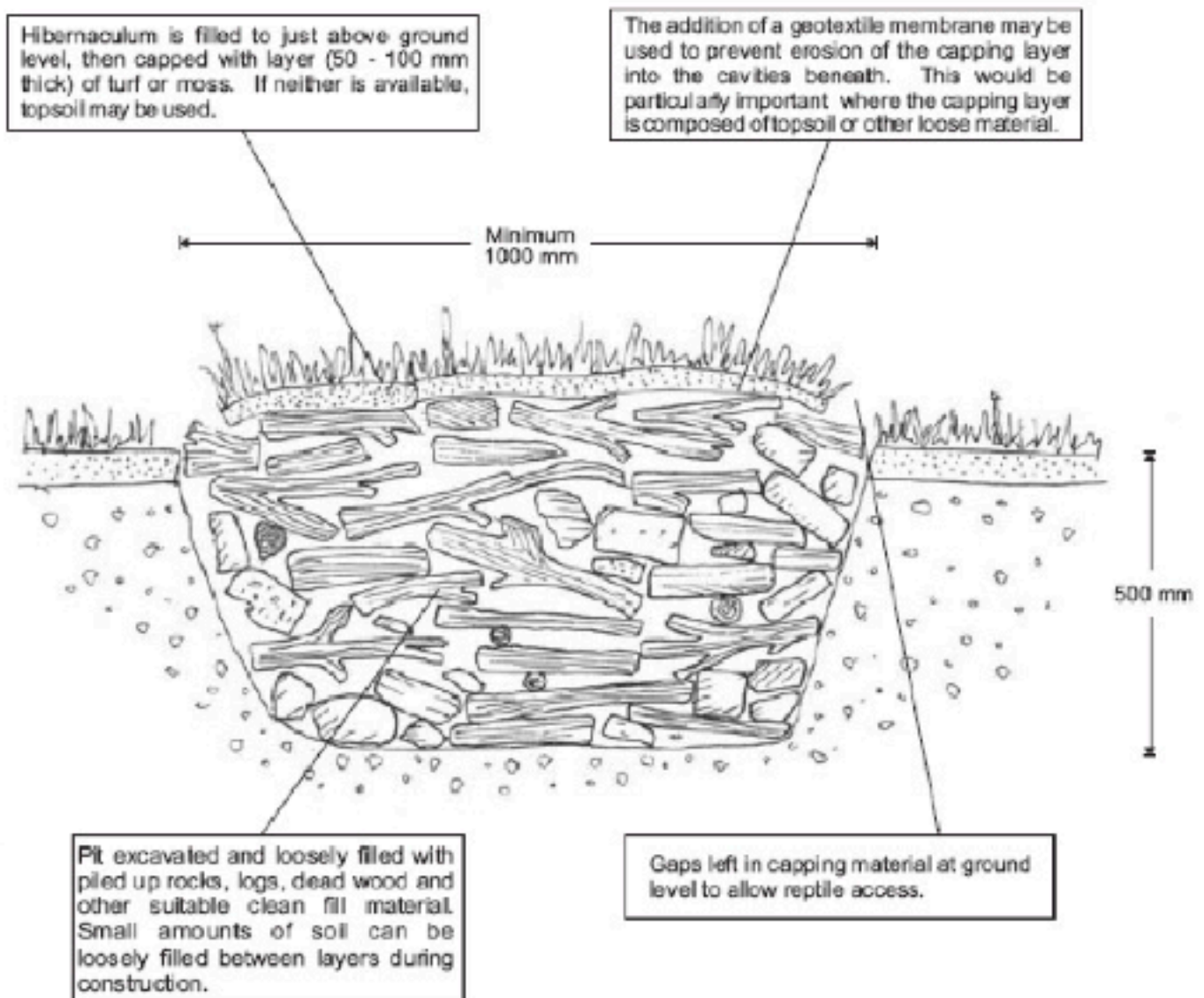


Appendix 5 – Invertebrate Habitat Potential Assessment

Table 1. Summary of the 11 habitat elements assessed by IHP survey.

Habitat element	No.	Comments
Decaying Wood	HE1	In all its forms; from decaying wood on/in large trees to woodland floor debris
Rotational Management	HE2	Planned or serendipitous; and whether for nature conservation or other purposes
Nectar Resources	HE3	As a proxy for nectar- and pollen resources, as assessment of pollen resources is impracticable on a walk-through survey
Wet Substrates	HE4	Including marginal, marshy, muddy and seasonally inundated habitats, as well as flushes
Open Water Habitats	HE5	The open water element of rivers, lakes, ponds, streams, ditches, etc.
Structural Patchwork	HE6	Habitat mosaics, including, but by no means restricted to open mosaic habitats on previously developed land
Still Air (S)	HE7	Suntraps and still-air microclimates in open situations; the term 'still air' is used in preference to 'wind breaks' as many rigid wind breaks are likely to produce turbulent air in their lee
Still Air (H)	HE8	Humid still-air microclimates in sheltered and shaded situations
Connectivity	HE9	Landscape-scale connectivity between the site and external habitats
Ecoclines	HE10	A graded transition between two or more broad habitats
Bare Earth	HE11	Unshaded bare or sparsely vegetated well-drained substrate, regardless of soil type

Appendix 6 - Reptile Hibernacula



Source: Highways Agency (2005) *Design Manual for Roads and Bridges: Volume 10 Section 4 Part 7 – Nature Conservation Advice In Relation to Roads and Reptiles*

Appendix 7. Legislation

The Habitats Directive (Directive 92/43/EEC) aims to *'contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States'*. The Directive requires the establishment and conservation of a network of sites within each member state which protect the rarest flora and fauna found across Europe. A number of species and habitats are listed in Annex 2 of the directive for which areas can be designated as a SAC. The aims of the Habitats Directive are transposed into British Law through the Conservation of Habitats and Species Regulations 2017.

The Wildlife and Countryside Act (1981) as amended provide the legislation framework and protection for SSSI. A SSSI is designated by a statutory nature conservation body such as Natural Resources Wales (NRW) for its make up of flora, fauna, geological and / or physiographical features. Each SSSI should have a citation which describes the site and its special features.

The Environment (Wales) Act 2016 is a wide reaching piece of legislation which seeks help improve the management of Wales' natural resources into the future. The Act sets out a Wales wide approach to planning and managing its natural resources at a national and local level in a sustainable manner. One main requirement for all public bodies, such as local councils, is to maintain and enhance biodiversity where possible within their duties.

The Well-Being of Future Generations (Wales) Act 2015 places a duty upon public bodies to produce well-being objectives that contribute to achieving a set of overarching well-being goals. The Resilient Wales goal is the key goal that biodiversity and geodiversity conservation, as part of the planning process, will contribute towards delivering.