



Ecological Appraisal Report:

Land off Intervalley Road
Glynneath

March 2020

Prepared by Wendy J Larcombe on behalf of I&G Ecological Consulting

Contact:

Glyn Lloyd-Jones glyn.igecol@gmail.com 07973 685423

Iestyn Evans iestyn.igecol@gmail.com 07733 214829

Contents

Summary	2
1. Introduction	3
2. Methodology	3
2.2 Badgers	
2.3 Otters	
2.4 Dormouse	
2.5 Birds	
2.6 Bats	
2.7 Reptiles	
2.8 Amphibians	
2.9 Water Vole	
2.10 Marsh Fritillary	
2.11 Non-native Invasive Species	
3. Results	4
3.1 Desk Study	4
3.2 Site Appraisal	6
4. Ecological Assessments	12
5. Conclusions and Recommendations	15
6. Legislation	18
7. References	24
8. Legal Disclaimer	25
9. Representative Species Lists	26
10. SEWBRc Data Search	26
11. Phase 1 Plan	27
12. Proposed site plan	28

Summary

I & G Ecological Consulting were commissioned to undertake an updated ecological appraisal of an area of land approximately 2.7 hectares in size, located at on the outskirts of the small town of Glynneath, in the county of Neath Port Talbot.

The land within the site boundary consists predominantly Previously Developed Land, with scrub, mature trees and a small watercourse.

No signs of European protected species were seen, however a number of non-native invasive species were encountered on the site.

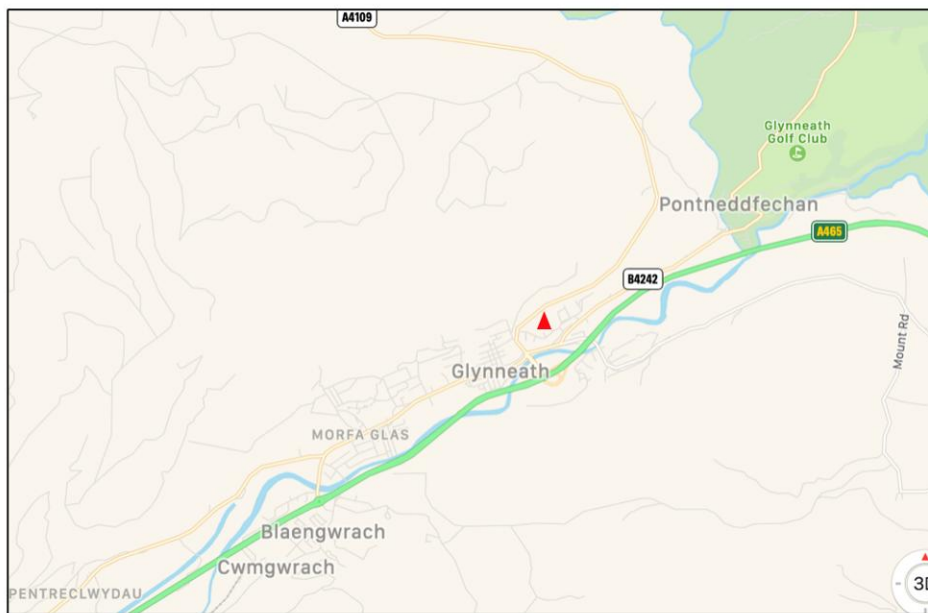


Figure 1. Location of site Grid Ref: SN8806 6096

In terms of the application site, the bulk of the habitat is brownfield of low ecological interest. The scrub, mature trees and water course provide features which are connected to similar habitat beyond the site.

1. INTRODUCTION

- 1.1.1 I & G Ecological Consulting were commissioned to undertake an updated ecological appraisal of an area of land at Glynneath. The site is approximately 2.7 hectares in size. The report is to inform an application for Planning Permission for a residential development.
- 1.1.2 This report presents the findings of both a desk study and a site appraisal undertaken in March 2020. The report outlines the ecological constraints/opportunities associated with the site.

- 1.1.3 The survey was conducted during sub-optimal conditions as vegetation survey can be limited outside of the main flowering season for grassland and hedgerow habitats.

2. METHODOLOGY

- 2.1.1 Both a desk-based survey and an ecological site survey were undertaken to establish the ecological conditions on site. This report should be read in conjunction with the previous PEA undertaken by Sazer Ecology in 2019.
- 2.1.2 A field botanical survey was carried out using survey methods that were based on standard Phase 1 Habitat survey techniques. The CIEEM Guidelines for Preliminary Ecological Appraisal were also followed and adhered to.

2.2 Badgers

- 2.2.1 The surrounding habitat was assessed for its suitability for badgers which includes the presence of setts, well-worn paths and runs, snagged hair, latrines, footprints and foraging. Any such incidental signs of badgers were recorded if they were encountered.

2.3 Otters

- 2.3.1 The surrounding habitat was assessed for its suitability to support otters. The area was searched for otter field signs such as spraint marking, slides, hovers or footprints.

2.4 Dormouse

- 2.4.1 The habitats on site, particularly the hedgerows were assessed for their suitability to support dormice.

2.5 Birds

- 2.5.1 The habitats on site were assessed for their suitability for breeding birds, including trees, scrub and grassland.

2.6 Bats

- 2.6.1 Habitats on site were assessed for their suitability to support bats, particularly any trees on site that could have bat roosting potential or opportunities.

2.7 Reptiles

- 2.7.1 The habitats on site were assessed for their suitability to support reptiles.

2.8 Amphibians

- 2.8.1 The habitats on site were assessed for their suitability to support amphibians.

2.9 Water Voles

- 2.9.1 The surrounding habitats on site were assessed for their suitability to support water voles.

2.10 Marsh Fritillary

The surrounding habitats on site were assessed for their suitability to support marsh fritillary butterfly and their food plant Devil's bit scabious *Succisa pratensis*.

2.11 Non-Native Invasive Species

- 2.11.1 Any pernicious weeds under Schedule 9, Section 14 of the Wildlife and Countryside Act 1981 (as amended) were also noted and mapped during the site survey. These species include Japanese Knotweed (*Fallopia japonica*) and Himalayan Balsam (*Impatiens glandulifera*).

3. RESULTS

3.1 Desk study

- 3.1.1 A data search was requested from the South East Wales Biological Records Centre for the planning application site and surrounding area of up to 1km. The species information was returned to I&G Ecology on 2nd March 2020. A number of protected and notable species records were returned within 1km of the site centre. The records will not be listed here, but the most significant, those which are considered to potentially be affected by development of the site, will be briefly summarised. However, the full data are available upon request to those nominated on the request form, as some data may be classified as sensitive. The closest record to the site is for Hedgehog at 156m from centre grid point, which is recorded to the south, within the site boundary.

- 3.1.2 The significant findings from the data search are summarised below: -

3.1.3 Birds

The data search returned 19 entries of birds which are categorised as priority species within 1km of the site. A number of records are at 358m from site centre, including Marsh Tit (*Poecile palustris*), Honey Buzzard (*Pernis apivorus*), Osprey (*Pandion haliaetus*) and Dunnock (*Prunella modularis*).

3.1.4 Mammals

The data search returned 32 records of mammals within 1km of the site centre, most significantly these included:-

- | | |
|--------------------------|---|
| <input type="checkbox"/> | 9 entries for Bats (<i>Pipistrelle</i> species, <i>Chiroptera</i> unknown, Brown long-eared, Whiskered and Lesser Horseshoe) closest record being 207m from the site (<i>Pipistrelle sp.</i>). |
| <input type="checkbox"/> | 3 entries for Otter (<i>Lutra lutra</i>), closest being recorded at 322m from the site. |
| <input type="checkbox"/> | 1 entry for Badger (<i>Meles meles</i>), at 676m from site. |
| <input type="checkbox"/> | 1 entry for Polecat (<i>Mustela putorius</i>) at 565m from site. |
| <input type="checkbox"/> | 5 entries for hedgehog (<i>Erinaceus europaeus</i>), the closest being 156m from site |

- 1 entry for Hazel Dormouse (*Muscardinus avellanarius*) at 676m from site

3.1.5 Invertebrates

The data search returned 3 records of invertebrates, which were for Moths; White Ermine (*Spilosoma lubricipeda*), Small Phoenix (*Ecliptopera silaceata*) and Blood-vein (*Timandra comae*), all recorded at 570m from site centre.

3.1.6 Plants

The data search returned very few records of plants within 1km of the site. There are 3 records for Bluebell (*Hyacinthoides non-scripta*), the closest being at 483m from the site.

3.1.7 Reptiles

The data search returned 2 records of reptiles within 1km of the site; Slowworm (*Anguis anguis*) at 570m from site and Common Lizard (*Zootoca vivipara*) at 715m.

3.1.8 Amphibians

The data search returned 2 records for amphibians; Common Toad (*Bufo bufo*) and Common Frog (*Rana temporaria*) both at 570m from site.

3.1.9 Non-native Invasive species

The data search returned 9 records of INNS within 1km of the site. These include Japanese Knotweed (*Fallopia japonica*) at 389m, Himalayan honeysuckle (*Leycestria formosa*) at 483m and Montbretia (*Crocsmia pottsii x aurea*) at 483m.

3.1.10 Statutory Designated Sites

The data search showed that there were a number of Nationally or Internationally important sites (e.g. SSSIs, SACs or SPAs) which lie within the search buffer.

SSSI - CWM GWRELYCH AND NANT LLYN FACH STREAMS (geological SSSI) 722m

3.1.11 Non-statutory Sites

SINC – Lamb & flag (630m) designated under the habitat type: Previously Developed Land of Biodiversity Interest
– NPT Watercourses

3.1.12 NRW Priority Areas

There are a good number of Priority Areas of habitat surrounding the site and are categorised thus (from WWWBIC data results table)

33 Ancient Semi Natural Woodland

5 Restored Ancient Woodland Sites

1 Ancient Woodland Site of Unknown category

the site is vegetated, except a small area of tarmac and where waste materials have been dumped recently.

Habitats recorded within red line boundary were as follows:-

3.3 Brownfield (with ephemeral, perennial and scrub vegetation)

- 3.3.1 Areas in the northern part of the site, either side of the entrance track are vegetated mostly by low growing ephemeral species and short perennials. Species include Colt's-foot (*Tussilago farfara*), Round-leaved Crane'sbill (*Geranium rotundifolium*) with abundant Pointed Spear-moss (*Calliergonella cuspidate*), (see Fig. 3).
- 3.3.2 Where vegetation is more developed, Hard Rush (*Juncus inflexus*) is a common component and in some places dominant (see Fig. 4). Taller annuals and perennials include Spear Thistle, Broadleaved Dock (*Rumex obtusifolius*) and Teasel (*Dipsacus* sp.). Species such as Wood Avens (*Geum urbanum*), Lesser Celandine (*Ranunculus ficaria*), Primrose (*Primula vulgaris*) and Winter Heliotrope (*Petasites fragrans*) are established along the stream bank. (See Fig. 4).



Figures 3. & 4. Ephemeral/short perennial and Rush dominated vegetation over central mound



Figure 5. Bankside vegetation

3.4 Scrub

- 3.4.1 Dense Scrub has developed around the boundaries, with Willow (*Salix* spp.) and Alder (*Ulnus glutinosa*) being key species together with Buddleia (*Buddleia davidii*) and Bramble (*Rubus fruticosus* agg.). Scattered scrub is found on the central mound, dominated by European Gorse (*Ulex europaeus*), while young Alder, Gorse and Willow are scattered in the south western corner. See Figs. 5 & 6.



Figures 5. & 6. Dense and Scattered Scrub

- 3.4.2 Dense Bramble scrub lines the top of a bank along the southern boundary. The slopes of the bank support Willow and Alder scrub, with a dry ditch/base, before rising up to form the opposing bank which is effectively the southern boundary. See Fig. 7.



Figure. 7. Bramble and Willow scrub along bank top

3.5 Watercourse

- 3.5.1 There is a stream running across the northern corner of the site, which then forms the eastern boundary. At the time of survey there was a moderate flow(E-W), and shallower areas supported typical plants such as Brooklime (*Veronica Beccabunga*), and Soft Rush (*Juncus effusus*) to the margins.
- 3.5.2 Where the stream reaches the E/SE corner of the site, drainage is very poor, with standing water, supporting a number of mature Willow trees and patches of Pendulous Sedge (*Carex pendula*). See Figs. 8 & 9.



Figures 8. & 9. Stream and bankside vegetation with Pendulous Sedge and Willow

- 3.5.3 There is a “v” shaped section forming the southern boundary, which may have water at the base, however this was not accessed due to the steep sides and dense scrub. It is, however, noted as a Watercourse on the SINCS records for NPT (included in the returned data from SEWBRcC).

3.6 Tree-lines (boundary feature)

- 3.6.1 Much of the peripheral boundary of the site contains mature trees including Oak, Willow and Alder. Dense scrub at their bases prevented full access to assess for features suitable for bats.

3.7 Stone piles

- 3.7.1 There are a number of piles of stone and boulders, most have at least some vegetation covering them, forming habitat for small mammals, reptiles and invertebrates. See Fig. 10.



Figure 10. Example of stone piles on site

3.8 Badgers

- 3.8.1 The grassland was considered sub-optimal for Badger foraging as soils were mostly poor/thin with considerable amounts of debris beneath, making it less likely as a good source of Earthworms and other subterranean prey items. The dense areas of scrub may provide cover but proximity to road and disturbance from neighbouring properties suggests it is sub-optimal habitat for setts. No evidence of badger activity was found within the scrub or elsewhere on the site.

3.9 Bats

- 3.9.1 There are a number of mature trees along the boundaries of the site, particularly the northern roadside boundary where there are large specimens of Oak, Birch and Alder. These boundary trees are likely to provide flight lines and foraging opportunities for generalist species such as pipistrelle.

3.10 Otters

- 3.10.1 The small stream (as described above) is considered to have potential to support Otters. Although no evidence of Otter activity was noted on site, the data search returned 3 records within 1km, the closest being around 322m away from site centre.

3.11 Reptiles

- 3.11.1 The vegetation cover over the is of mixed height and density and structure, and the range of habitats (scrub, bare ground, stone piles etc) give the site the structural complexity that reptiles require to provide suitable ecotone areas for basking and cover.

3.12 Amphibians

- 3.12.1 The slower sections of stream and waterlogged areas, as described above, provide suitable habitat for Amphibians. There are also habitats, as above, to provide refuge/hibernation opportunities for terrestrial phase amphibians. The dense areas of rush/grassland and scrub will support terrestrial phase amphibians.

3.13 Hazel Dormouse

- 3.13.1 The scrub and boundary tree-lines were assessed for their suitability to support dormice. Both offer arboreal connectivity to woodland to the north and east of the site, along Inter-valley Road. The mix of scrub and tree species offers a wide range of food sources (i.e. Willow, Oak, Hazel, Ash, Gorse, Dog Rose and Bramble).

3.14 Water Voles

- 3.14.1 As described above, the site does have a small stream forming a partial boundary. It is shallow sided for the most part, however there is a mix of vegetation types and density along its banks. Therefore, the habitat present was considered suitable to support water voles.

3.15 Birds

- 3.15.1 A number of bird species were observed during the survey; Mistle Thrush (*Turdus viscivorus*), Grey Wagtail (*Motacilla cinerea*), Chaffinch (*Fringilla coelebs*) and House Sparrow (*Passer domesticus*). The mix of vegetation types will provide forage and shelter/nesting opportunities for a range of species.

3.16 Marsh Fritillary

- 3.16.1 Although Rush species were present, and dominated some areas, there was no Purple-moor Grass and it did not constitute quality marshy grassland habitat, which is preferred by Marsh Fritillary butterflies, the area was considered unsuitable to support Marsh Fritillary butterfly due to the lack of preferred food plant species.

3.17 Non-native Invasive Species

- 3.17 There are a number of INNS noted on the site, the most prevalent being Buddleia which can be found predominantly along the northern/roadside boundary. Himalayan Honeysuckle, Japanese Knotweed and seedlings of Himalayan Balsam were also evident. Other garden escapes such as Day Lily can be found along the northern and southern boundaries.

4. ECOLOGICAL ASSESSMENTS

- 4.1.1 The following values have been provided to assess the importance of an ecological feature value within a geographical context, as recommended within the CIEEM Guidelines for Ecological Impact Assessment (2016) and the CIEEM Guidelines for Ecological Report Writing (Dec.2015). See Table 1 below:

4.1.2 Table 1: Ecological Value Assessments

Importance	Examples of features
International & European	European designated or proposed sites such as Ramsar Sites, Special Protection Areas, Special Areas of Conservation, World Heritage sites or Biosphere Reserves; or otherwise meeting criteria for European or International designation. Sites supporting populations of European important species. Species listed within the Annex's of The Conservation of Habitats & Species Regulations 2010
National	Nationally designated sites such as Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs), areas of key habitats and species within the UK Biodiversity Action Plan. Sites supporting viable breeding populations of Red Data Book (RDB) species (excluding scarce species), or supplying critical elements of their habitat requirements. Species listed within the schedules of the Wildlife & Countryside Act 1981.
Regional	Sites containing viable areas of threatened habitats and species listed in a regional Biodiversity Action Plan, sites exceeding Site of Importance for Nature Conservation (SINC) criteria. Sites supporting viable populations of Nationally Scarce species or those included in the Regional Biodiversity Action Plan on account of their rarity, or supplying critical elements of their habitat requirements.
High Local	Sites meeting the criteria for a county, vice county or metropolitan area designation (such as SINC), which may include amenity and educational criteria in urban areas. Ancient semi-natural woodland. Designated Local Nature Reserves. Sites containing viable areas of any key habitat type or species identified in the Local Biodiversity Action Plan (LBAP). Sites supporting viable breeding populations of species known to be county/metropolitan rarities e.g. featuring in county 'red data book' or LBAP, or supplying critical elements of their habitat requirements.
Moderate Local	Undesignated sites or features considered appreciably to enrich the habitat resource within the context of the Borough or District, or included in the Borough or District LBAP. Amenity and educational functions will be recognised in urban areas. Sites with viable breeding populations of species listed as rare in the District or Borough LBAP or supplying critical elements of their habitat requirements.
Low Local	Undesignated sites or features considered appreciably enriching the habitat resource within the context of the Parish or neighbourhood.
Negligible	Low-grade and widespread habitats.

4.1.3 Table 2: Impact level Criteria

Severe	Permanent impacts
Major	Loss of feature and/or quality and integrity of feature; severe damage to key characteristics, features or elements.
Moderate	Loss of feature, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements.
Minor	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements
Negligible	Very minor loss or detrimental alteration to one or more characteristics, features or elements
Neutral	No impacts

4.2 Priority Habitats and Species

- 4.2.1 UK BAP priority habitats and species were those that were identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP). As a result of devolution, conservation action is now focused at a country-level rather than a UK-level, and the UK BAP was succeeded by the UK Post-2010 Biodiversity Framework in July 2012. The UK list of priority species, however, remains an important reference source and has been used to help draw up statutory lists of priority species and habitats in the four countries of the UK.
- 4.2.2 The Environment Wales Act (2016) (EWA) Section 6 places a duty on public authorities to 'seek to maintain and enhance biodiversity' and seek to 'promote the resilience of ecosystems'. The duty replaces the section 40 duty in the Natural Environment and Rural Communities Act 2006 (NERC Act 2006), in relation to Wales, and applies to those authorities that fell within the previous duty. Section 7 lists both Priority Species and Habitats of Principle Importance for the purpose of maintaining and enhancing biodiversity in relation to Wales.
- 4.2.3 The Neath Port Talbot Local Biodiversity Action Plan (LBAP) aims to maintain and enhance biodiversity which covers a range of selected habitats and species which reflect both national and local priorities; develop effective local partnerships; monitor progress in achieving local biodiversity targets.

4.3 Assessments on the Habitats & Species Identified During the Survey

4.4. Habitats

4.4.1 Brownfield

The mix of ephemeral/short perennial and more developed grass/rush vegetation will provide habitat for a range of species groups; its value has been assessed as: **Low Local**. Loss of this habitat, without mitigation, is considered to be **Minor**.

4.4.2 Scrub and tree-lines

The scrub and tree-lines were considered to be of ecological interest; although they contain non-native shrub species, they will have value as habitat cover and as food sources for a range of birds, mammals and invertebrate species. Their connectivity to other similar habitats will be of value to local wildlife. Overall, the value of the scrub and trees was assessed as: **Low Local**. **Loss or damage to this habitat would be Minor-Moderate, without mitigation.**

4.4.3 Watercourse

The stream is considered to potentially provide habitat for Water Vole and Otter; additionally, it will provide habitat for Amphibians and a range of invertebrates. The stream's value is considered to be ***High Local as it is designated as a Watercourse SINCE (in part) by NPTCBC***, and loss without mitigation would be ***Major***.

4.5 Species

- 4.5.1 The field survey identified the on-site habitats as having the potential to support the following species which are also listed under UK BAP: Breeding Birds, Otter, Water Vole, Bats, Reptiles and Amphibians.
- 4.5.2 During the field survey, no bird species, which are listed under the LBAP and UK BAP as being associated with the on-site habitats, were recorded. The survey concluded that the site consisted of suitable habitat which could support priority species such as Thrush species, House Sparrow and Bullfinch.

4.6 Ecosystem Resilience

- 4.6.1 Area loss can cause populations of organisms to decline due to a decrease in habitat size. The area to be developed consists of four habitat types: Improved Grassland, Hedgerow and associated bank, ditch and garden. If the site is cleared without any mitigation for development the impact is expected to be ***Major***, principally depending on the extent to which the watercourse will be affected, but additionally the level of loss of trees and scrub.

5. CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER SURVEY

- 5.1 The combination of desk and field surveys undertaken at the proposed development site identified that the majority of the area within the planning site boundary has negligible ecological value (brownfield). However, the scrub/trees and watercourse riparian zones have higher ecological interest, supporting a more diverse range of species and are likely to provide nesting opportunities for birds, cover for small mammals and invertebrates and flight lines for bats. The watercourse and wetter habitats are likely to support amphibians and a range of invertebrates.

5.2 Scrub and Tree-lined boundaries

- 5.2.1 In terms of the site's ecological potential, the scrub and trees were considered to have higher habitat value than the main body of the site.
- 5.2.2 Scrub and trees should be retained wherever possible, particularly where they offer connectivity to adjacent habitats.

- 5.2.3 Loss of scrub habitat and trees should be mitigated for by suitable new planting, detailed in the landscape scheme and approved by the LA ecologist. Any new planting should be with trees and shrubs of local provenance and should seek to replicate the species mix present in the existing hedgerow. Landscaping should include berry bearing species such as guelder rose, rowan and purging/alder buckthorn, which will also attract brimstone butterfly.
- 5.2.4 Protection of remaining scrub and trees is recommended; the use of Root Protection Zones and appropriate working methodology as well as proximity of development boundary must be considered.

5.3 Watercourse

- 5.3.1 The stream is a SINC and considered to provide habitat for a range of species. Under the existing planning permission the stream will be culverted as part of the development of the site. A drainage plan will inform appropriate protection of any ditches/associated features beyond the site.

5.4 Birds

- 5.4.1 All nesting birds are protected under Section 1 of the Wildlife and Countryside Act of 1981. Therefore, vegetation clearance should be planned outside the nesting bird season.

5.5 Bats

- 5.5.1 The boundary scrub and tree-lines will act as flight lines for bats and any dark corridors should be maintained as such. An appropriate lighting plan in relation to bats will take such habitat into consideration. Any mature trees which require felling or management in order to accommodate the development will be subject to inspection and assessment for suitability for use by bats, by a licenced bat surveyor following current guidelines (Bat Conservation Trust).

5.6 Dormice

- 5.6.1 The areas of dense Bramble scrub provide suitable habitat for Dormice, however, there are no records for Dormouse in the county. A precautionary approach to site clearance should be taken. Enhancement opportunities may exist within the development layout which will improve the integrity and species diversity of the remaining scrub and woodland belts, and seek to increase connectivity to any adjacent suitable habitat.

5.7 Amphibians

- 5.7.1 The stream should be retained and protected from development (as 5.3.1 above). A **method statement and mitigation plan** should be prepared in order to protect amphibians during site clearance and construction.

5.8 Reptiles

- 5.8.1 A designated area for reptiles has been constructed sealed off from the main site by TAF fencing and reptile clearance works have been instigated following the recommendations of the previous PEA.

5.9 Invasive Non-native species

- 5.9.1 The site contains a number of stands of Japanese Knotweed. Buddleia can be found within much of the scrub and there are seedlings of Himalayan Balsam.
- 5.9.2 There may be other INNS from neighbouring gardens, which if disturbed during site clearance could be inadvertently spread within the site and off site.
- 5.9.3 An assessment of INNS should be undertaken at an appropriate time of year (i.e. within the growing season) and a suitable **Treatment Plan** agreed with the LA.

5.10 Biodiversity and Resilience of Ecosystems Duty (Section 6 Duty)

- 5.10.1 The Environment (Wales) Act 2016 introduced an enhanced biodiversity and resilience of ecosystems duty (Section 6 Duty) applicable to Local Authorities. This duty filters through to all those participating in the Planning process.
- 5.10.2 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 species, locally or nationally and must provide a net benefit for biodiversity.
- 5.10.3 It is therefore recommended, that in order to mitigate for loss of scrub, a similar amount of new native hedgerow/planting should be incorporated into the development. However, in order to *enhance* the site for biodiversity, additional hedgerow should be planted, and it is suggested that this forms a part of the boundaries of the new properties.

New dwellings should include artificial habitats such as bat bricks/boxes, bird boxes/bricks or Swift/Swallow cups; the details of which should be agreed with the LA ecologist.

6. LEGISLATION

6.1 Otters and the Law.

6.1.1 The otter is a European Protected Species (EPS). It is against the law to damage or destroy an otter breeding site or resting place, or deliberately to capture, kill, injure or disturb an otter.

6.1.2 Otters are fully protected by the following pieces of legislation:

- The Conservation of Habitats and Species Regulations 2017 (regulation 42) fully protects otters, making it **an offence to:-**
 - *Intentionally or deliberately capture, injure or kill an Otter.*
 - *Damage or destroy a breeding or resting place of an Otter, or intentionally or recklessly damage or destroy any structure or place used for shelter or protection*
 - *Intentionally or recklessly disturb an Otter in a place used for shelter or protection, or deliberately disturb Otters in such a way as to be likely significantly to affect (i) the ability of any significant group of Otters to survive, breed, rear or nurture their young, or (ii) the local distribution or abundance.*
 - *Intentionally or recklessly obstruct access to a place used for shelter or protection.*
 - *Possess an Otter (alive or dead), or any part of an Otter*
- Schedule 5 of the Wildlife and Countryside Act 1981 (as amended by the CROW [Countryside Rights of Way] Act 2000) fully protects otters, making it **an offence to:-**
 - *Intentionally or recklessly disturb any otter while it is occupying a structure or place which it uses for shelter or protection*
 - *Intentionally or recklessly obstructs access to any structure or place used by an otter for shelter or protection*
 - *Sell, offer or expose for sale any otter*

6.1.3 For any disturbance to occur a derogation or **EPS licence** must be gained from Natural Resources Wales. To gain an EPS Licence from Natural Resources Wales (NRW), NRW must be satisfied that;

- i. granting the licence would not be detrimental to the Favourable Conservation Status (fcs) of the populations of species concerned within its natural range.
- ii. the derogation (licence) is in the public interest of Health and Safety or for other reasons of over-riding public interest, including those of a socio-economic nature or will have a benefit of primary importance to the environment.
- iii. there is no satisfactory alternative to the derogation which would allow the described development to proceed but which would avoid or reduce the need for any adverse impact to the species.

6.1.4 Otters are also protected by;

- Natural Environment and Rural Communities Act 2006 and now the Environment (Wales) Act 2016.
- Annex II Habitats Directive (protection through Special Areas of Conservation)
- UK Biodiversity Action Plan Priority Species and Species of Principal Importance in Wales

6.2 Bats and the Law

6.2.1 Bats are protected by the following pieces of legislation:

- Schedule 5 and 6 of the Wildlife and Countryside Act 1981 (as amended by the CROW [Countrywide Rights of Way] Act 2000)
- The Environmental Damage (Prevention & Remediation) Regulations 2009 – A protected species and its habitat is protected under this legislation as well as others.
- The Conservation of Habitats and Species Regulations 2017 (regulation 42) fully protects all bats and their roosts, making it **an offence** *to deliberately kill, injure or capture* (take) bats; *to deliberately disturb bats; damage or destroy bat roosts or resting places* (this is considered an “Absolute Offence” as damage and destruction may detrimentally effect the Continuous Ecological Functionality of that roost / resting place); possess or transport a bat or any part of a bat; sell (or offer for sale) or exchange bats or parts of bats.
- For any disturbance to occur a derogation or **EPS licence** must be gained from Natural Resources Wales. To gain an EPS Licence from Natural Resources Wales (NRW), NRW must be satisfied that;
 - i. the licence would not be detrimental to the Favourable Conservation Status (fcs) of the populations of species concerned within its natural range.
 - ii. the derogation (licence) is in the public interest of Health and Safety or for other reasons of over-riding public interest, including those of a socio-economic nature or will have a benefit of primary importance to the environment.
 - iii. there is no satisfactory alternative to the derogation which would allow the described development to proceed but which would avoid or reduce the need for any adverse impact to the species.

6.2.2 Bats are also protected by;

- Appendix III of the Bern Convention
- Appendix II of the Bonn Convention (including the Convention's Agreement on the conservation of Bats in Europe)
- Natural Environment and Rural Communities Act 2006 and now the Environment (Wales) Act 2016.

- All bats are listed in Annex IV of the EC Habitats Directive and the British species listed in Schedule 2 of the Habitats Regulations 1994 (as amended) and are therefore designated as *European Protected Species*. These *protected* species are afforded enhanced protection and more stringent licensing provisions than those protected by the Wildlife and Countryside Act (WACA) alone.

6.3 The Hazel Dormouse and the Law

6.3.1 The hazel dormouse is a European Protected Species (EPS). It is against the law to damage or destroy a dormouse breeding site or resting place (summer or hibernation nest), or deliberately to capture, kill, injure or disturb a dormouse.

6.3.2 Dormice are fully protected by the following pieces of legislation:

- The Conservation of Habitats and Species Regulations 2017 (regulation 42) fully protects dormice, making it **an offence to:-**
 - *Intentionally or deliberately capture, injure or kill a dormouse.*
 - *Damage or destroy a breeding or resting place of a dormouse, or intentionally or recklessly damage or destroy any structure or place used for shelter or protection*
 - *Intentionally or recklessly disturb a dormouse in a place used for shelter or protection, or deliberately disturb dormouse in such a way as to be likely significantly to affect (i) the ability to survive, breed, rear or nurture their young, and includes in the case of animals of a hibernating or migratory species, to hibernate or migrate or (ii) the local distribution or abundance.*
 - *Intentionally or recklessly obstruct access to a place used for shelter or protection.*
 - *Possess a dormouse (alive or dead), or any part of a dormouse*
- Schedule 5 of the Wildlife and Countryside Act 1981 (as amended by the CROW [Countryside Rights of Way] Act 2000) fully protects dormice, making it **an offence to:-**
 - *Intentionally or recklessly disturb any dormouse while it is occupying a structure or place which it uses for shelter or protection*
 - *Intentionally or recklessly obstructs access to any structure or place used by a dormouse for shelter or protection*
 - *Sell, offer or expose for sale any dormouse*

6.3.3 For any disturbance to occur a derogation or **EPS licence** must be gained from Natural Resources Wales. To gain an EPS Licence from Natural Resources Wales (NRW), NRW must be satisfied that;

- i. granting the licence would not be detrimental to the Favourable Conservation Status (fcs) of the populations of species concerned within its natural range.

- ii. the derogation (licence) is in the public interest of Health and Safety or for other reasons of over-riding public interest, including those of a socio-economic nature or will have a benefit of primary importance to the environment.
- iii. there is no satisfactory alternative to the derogation which would allow the described development to proceed but which would avoid or reduce the need for any adverse impact to the species.

6.3.4 Dormice are also protected by;

- Natural Environment and Rural Communities Act 2006 (England) and the Environment (Wales) Act 2016.
- Annex II Habitats Directive (protection through Special Areas of Conservation)
- UK Biodiversity Action Plan Priority Species and Species of Principal Importance in Wales

6.4 Reptiles and the Law

- 6.4.1 All of the UK native reptiles are protected by law. The common species of reptiles found in this locality are common lizard, slow-worm, adder and grass snake. It is illegal to intentionally kill or injure these species under Section 9 (1) of the Wildlife and Countryside Act 1981 (as amended).
- 6.4.2 All native UK reptiles are considered of 'principle importance' under Section 7 of the Environment (Wales) Act 2016. This places a duty on every public authority, in exercising its functions, to have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.
- 6.4.3 Under the National Planning Policy Framework (NPPF April 2012), the presence of any Protected Species (which includes all reptiles species) are a material planning consideration. The ODPM 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact within the Planning System, provide additional advice and support the NPPF.

6.5 Amphibians and the Law

- 6.5.1 All of the UK native amphibians are protected by law. The common species of amphibians in this locality are common frog, common toad, smooth newt and palmate newt. It is illegal to intentionally kill or injure these species under Section 9 (1) of the Wildlife and Countryside Act 1981 (as amended).
- 6.5.2 The common toad is considered of 'principle importance' under Section 7 of the Environment (Wales) Act 2016. This places a duty on every public authority, in exercising its functions, to have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.

- 6.5.3 Under the National Planning Policy Framework (NPPF April 2012), the presence of any Protected Species (which includes the Common Toad) are a material planning consideration. The ODPM 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact within the Planning System, provide additional advice and support the NPPF.

6.6 Birds and the Law

- 6.6.1 All species of bird are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended). Protection was extended by the Countryside and Rights of Way (CROW) Act 2000. Under the above legislation it is an offence to intentionally:
- kill, injure or take any wild bird;
 - take, damage or destroy the nest of any wild bird while that nest is in use or being built; or
 - take or destroy an egg of any wild bird.
- 6.6.2 Certain species are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and receive protection under Sections 1(4) and 1(5). The protection was extended by the Countryside and Rights of Way (CROW) Act 2000. There are special penalties where the offences listed above are committed for any Schedule 1 species and it is also an offence to intentionally or recklessly:
- disturb any such bird when it is building its nest or while it is in or near a nest containing dependant young; or
 - disturb the dependant young of any such bird.

6.7 Badgers and the Law

- 6.7.1 The protection of Badgers Act 1992 makes it illegal to kill, injure or take a badger, or interfere with a sett. In addition, they are listed on Schedule 6 of the Wildlife & Countryside Act 1981, which prohibits certain methods of killing and capture.

6.8 Water Voles and the Law

- 6.8.1 Water voles are listed under Schedule 5 of the Wildlife & Countryside Act 1981, receiving full protection since 2008. The Wildlife & Countryside Act 1981 (as amended), lists the following offences:-
- Intentionally kill, injure or take water voles (Section 9 (1)).
 - Possess or control live or dead water voles or derivatives (Section 9 (2)).
 - Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection (Section 9 (4) (a & c)).

- Intentionally or recklessly disturb water voles whilst occupying a structure or place used for that purpose (Section 9 (4) (b)).
- Sell water voles or offer or expose for sale or transport for sale (Section 9 (5)).
- Publish or cause to be published any advertisement which conveys the buying or selling of water voles (Section 9 (5)).

6.9 Environment Act (Wales) 2016

- 6.9.1 This act has replaced the section 40 duty in the Natural Environment and Rural Communities Act 2006 (NERC Act 2006), in relation to Wales, and applies to those authorities that fell within the previous duty. It came into force in May 2016.
- 6.9.2 Section 6 of the Act 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'. Under Section 6 public authorities will be required to report on the actions they are taking to improve biodiversity and promote ecosystem resilience.
- 6.9.3 Section 7 of the Act places a duty on public authorities to take steps to maintain and enhance biodiversity. This section replaces the duty in section 42 of the NERC Act 2006. The Section 7 Priority Species under this act is a list of the living organisms of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. The Section 7 Priority Habitats is a list of the habitats of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales.

7. REFERENCES

Amphibian & Reptile Conservation UK (Sept. 2010) *Legislative Protection for Herpetofauna (England & Wales)*

British Standard (2005) *Trees in relation to construction – recommendations BS 5837:2005*

Crown copyright (1992) *Protection of Badgers Act 1992*

CIEEM (2015) *Guidelines for Ecological Report Writing*, Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2016) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester

DEFRA (2007) *Hedgerow Survey Handbook A standard procedure for local surveys in the UK*

English Nature (2002) *Badgers & Development*, English Nature.

Environment & Heritage Service (2004) *Badgers & Development*, Environment & Heritage Service Publishing Unit.

Hundt L (2012) *Bat Surveys, Good Practice Guidelines*, Bat Conservation Trust.

JNCC (2004) *National Vegetation Classification, Field Guide to Woodland*, Joint Nature Conservation Committee.

National Federation of Badger Groups (2005) *Badgers and the Law*, NFBG
www.badger.org.uk/action/index.html

Poland. J & Clement. E (2009) *The Vegetative Key to the British Flora*, BSBI.

Rose, F. (2006) *The Wildflower Key (2nd end.)*, Penguin London.

Wales Biodiversity Partnership (2016) *Environment Act (Wales)*.

Welsh Assembly Government (WAG 2016). Environment (Wales) Act 2016 Section 7 – list of the living organisms of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. Welsh Government, Cardiff.

8. I&G Ecological Consulting Legal Disclaimer

This report was prepared by I&G Ecological Consulting at the instruction of, and for use by, our client(s) named on the front of the report. It does not in any way constitute advice to any third party who is able to access it by any means. I&G Ecological Consulting excludes to the fullest extent lawfully permitted all liability whatsoever for any loss or damage howsoever arising from reliance on the contents of this report. We do not however exclude our liability (if any) for personal injury or death resulting from our negligence, for fraud or any other matter in relation to which we cannot legally exclude liability.

We confirm that in preparing this Report we have exercised reasonable skill and care, taking into account the project objectives, the agreed scope of the work and prevailing site conditions.

Advice in this report is based on the judgement of I&G Ecological Consulting and the interpretation of data gathered during the course of their survey on the property named in this document.

The findings and advice given during the course of this survey is provided by employees of I&G Ecological Consulting acting only on behalf of I&G Ecological Consulting.

The employees of I&G may hold other paid employment but none of their advice or work undertaken in respect of producing this report refers to any roles or responsibilities held in any other employment other than that held at I&G Ecological Consulting.

All work undertaken in this report is the sole responsibility of I&G Ecological Consulting and remains the Intellectual property of I&G until payment in full has been received. Until such time as full payment is received this document may be removed from the planning process at any time.

9. Representative Species List

A species list for the improved grassland was deemed unnecessary as species diversity was so low.

Scrub & Tree-lines

Species	Frequency
Alder – <i>Ulnus glutinosa</i>	A
Ash – <i>Fraxinus excelsior</i>	F
Birch – <i>Betula</i> sp.	O
Bramble – <i>Rubus fruticosus</i> agg.	A
Broom – <i>Cytisus scoparius</i>	R
Butterfly Bush – <i>Buddleia davidii</i>	A
Common Ivy – <i>Hedera helix</i>	F
Dog rose – <i>Rosa canina</i>	O
European Gorse – <i>Ulex europaeus</i>	F
Hazel – <i>Corylus avellana</i>	F
Himalayan Honeysuckle – <i>Leycesteria formosa</i>	O
Holly – <i>Ilex aquifolium</i>	R
Pedunculate Oak – <i>Quercus robur</i>	F
Sycamore - <i>Acer pseudoplatanus</i>	O
Willow spp. – <i>Salix</i> spp.	A

Brownfield

Species	Frequency
Broad-leaved Dock – <i>Rumex obtusifolius</i>	F
Broadleaved Willowherb – <i>Epilobium montanum</i>	F
Cock's-foot – <i>Dactylus gomerata</i>	F
Colt's-foot- <i>Tussilago farfara</i>	O
Common Daisy – <i>Bellis perennis</i>	F
Common Ivy – <i>Hedera helix</i>	F
Common Ragwort – <i>Senecio jacobaea</i>	O
Creeping Bent - <i>Agrostis stolonifera</i>	F
Creeping Cinquefoil – <i>Potentilla reptans</i>	F
Dandelion – <i>Taraxacum officinale</i>	F
Dog rose – <i>Rosa canina</i>	O
Evening Primrose – <i>Oenothera</i> sp.	R
Field Horsetail – <i>Equisetum arvense</i>	O
Germander Speedwell – <i>Veronica chamaedrys</i>	O
Hard Rush – <i>Juncus inflexus</i>	D
Hawkbite sp. – <i>Leontodon</i> sp.	F
Nettle – <i>Urtica dioica</i>	F
Pointed Spear-moss - <i>Calliergonella cuspidate</i>	D
Primrose – <i>Primula vulgaris</i>	R
Red Clover – <i>Trifolium pratenses</i>	F
Ribwort Plantain – <i>Plantago lanceolata</i>	F
Round-leaved Crane'sbill – <i>Geranium rotundifolium</i>	F
Selfheal – <i>Prunella vulgaris</i>	O

Soft Rush – <i>Juncus effuses</i>	A
Spear Thistle – <i>Cirsium vulgare</i>	O
White Clover – <i>Trifolium repens</i>	A
Wild Carrot – <i>Daucus carota</i>	O
Winter Heliotrope – <i>Petasites fragrans</i>	LA
Wood Avens – <i>Geum urbanum</i>	O
Yorkshire Fog – <i>Holcus lanatus</i>	F

10. SEWBrEC Data Search

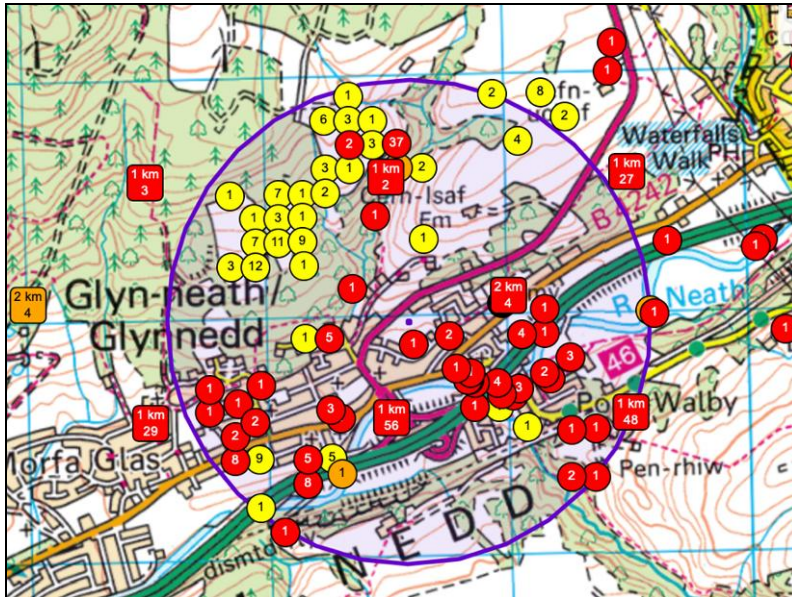


Figure 11. SEWBrEC Protected Species Data Search 2nd March 2020

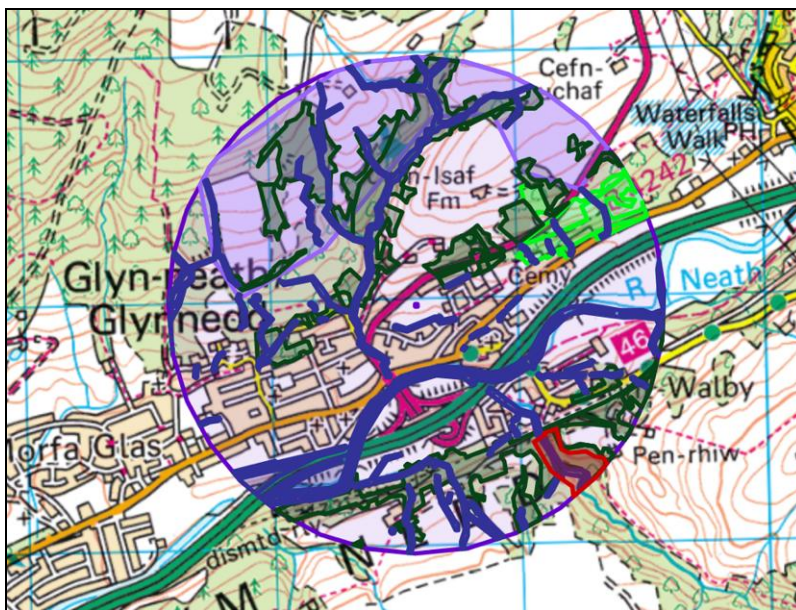
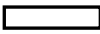







Figure 12. SEWBrEC Protected Sites Data Search 2nd March 2020

Phase 1 Habitat Plan. Figure 13.



Colour	Code	Description
	J5 (target)	Other (Previously Developed Land)
	J1.4	Introduced Shrub (Inc INNS)
	G2	Open Running Water
	J2.3.2	Native Hedges & Trees (species poor)
	A2.2	Scattered scrub
	A2.1	Dense continuous scrub

Phase 1 Habitat Code Key:



Figure 14 : Proposed site plan