



Ecological Appraisal Report:

Land adj. Abergarwed Farm, Resolven, Neath

June 2020

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Summary

I & G Ecological Consulting were commissioned to undertake a preliminary ecological appraisal of an area of land approximately 0.42 hectare in size, in the village of Abergarwed, near Resolven, Neath Port Talbot (see Fig. 1).

The land within the site boundary consists predominantly of Previously Developed Land, with an area of hardstanding. Other than the existing hard standing, the majority of the site consists of gravel substrate, on which typical species of “brownfield” plants are growing. Boundary features include old stone walls and wire fencing. The site also includes a section of access track which leads to the site from the B4242.

No signs of European protected species were seen, however non-native invasive species were encountered on the site, principally Japanese Knotweed (*Fallopia japonica*).

In terms of the application site, the small areas of vegetated gravel and the stone wall both provide biodiversity value to a range of pollinators, birds and small mammals.

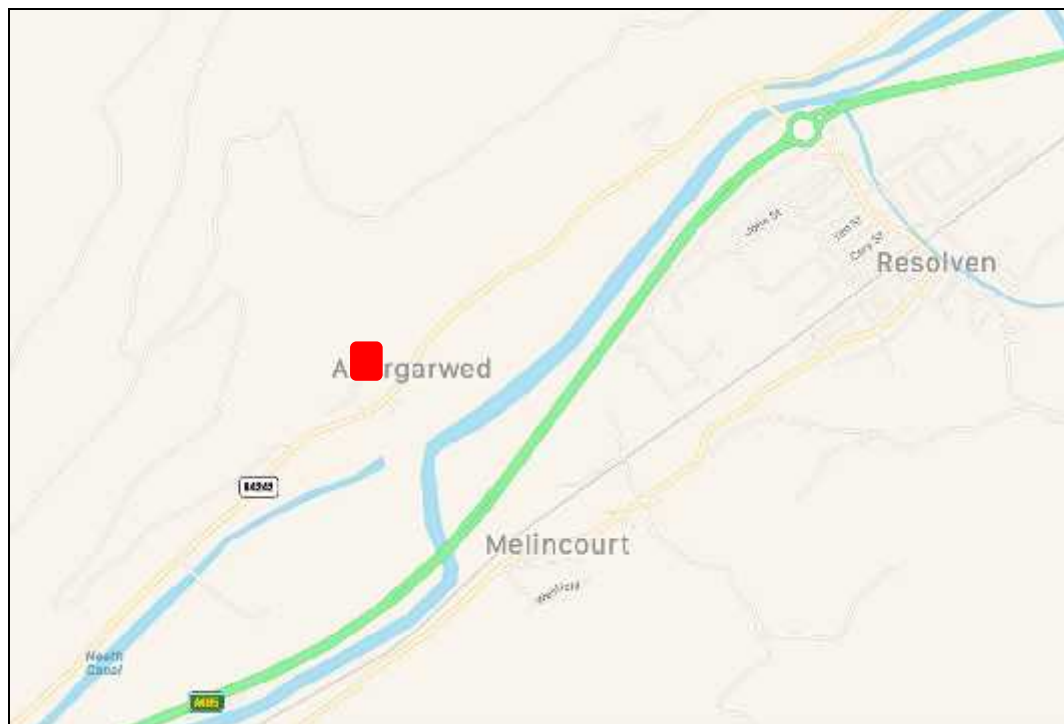


Figure 1. Location of site Grid Ref: SN53531175

1. INTRODUCTION

- 1.1.1 I & G Ecological Consulting were commissioned to undertake an ecological appraisal of an area of land adjacent to Abergarwed Farm, Abergarwed. The site is approximately 0.42 hectare in size and is part of a larger area under ownership of the client. The report is to inform an application for Planning Permission for a commercial building on the existing hardstanding. No detailed proposals or landscaping layout plans have been provided at the time of writing.
- 1.1.2 This report presents the findings of both a desk study and a site appraisal undertaken in May 2020. The report outlines the ecological constraints/opportunities associated with the site.
- 1.1.3 The survey was conducted during optimal conditions and there were no major access constraints.

2. METHODOLOGY

- 2.1.1 Both a desk-based survey and an ecological site survey were undertaken to establish the ecological conditions on site.
- 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 SEWBReC/Aderyn for the planning application site and surrounding area of up to 2km. The species information was returned to I&G Ecology on 26th June 2020. The closest record to the site is for Otter (*Lutra lutra*) at 141m from site centre grid reference. 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.

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

3.1.3 Birds

The data search returned 142 entries of birds which are categorised as priority species within 2km of the site. The closest is for King Fisher (*Alcedo atthis*) at 184m from site. Several bird species are recorded at 316m from site, including Spotted Flycatcher (*Muscicapa striata*) House Sparrow (*Passer domesticus*), Common Crossbill (*Loxia curvirostra*) and Dunnock (*Prunella modularis*).

3.1.4 Mammals

The data search returned 74 records of mammals within 2km of the site, most significantly these included:-



- | | |
|--------------------------|---|
| ☐ | 17 entries for Bats (<i>Pipistrelle</i> species, <i>Chiroptera</i> unknown, Daubenton's, Noctule and Long-eared) closest record being 207m from the site for <i>Pipistrellus</i> sp. |
| ☐ | 32 entries for Otter (<i>Lutra lutra</i>), closest being recorded at 141m from the site |
| ☐ | 3 entries for Badger (<i>Meles meles</i>), the closest being 316m from site |
| ☐ | 7 entries for Hedgehog (<i>Erinaceus europaeus</i>), the closest being at 881m from site |
| ☐ | 1 entry for Brown Hare (<i>Lepus europaeus</i>), at 927m |
| ☐ | 1 entry for Polecat (<i>Mustela putorius</i>) at 1025m |

3.1.5 Invertebrates

The data search returned 46 records of invertebrates, which were principally for Moths and Butterflies. Moth Records include Knot Grass (*Acronicta rumicis*) and Small Phoenix (*Ecliptopera silaceata*) at 316m. Only 3 entries for Butterflies, all Small Heath (*Coenonympha pamphilus*), closest at 1315m.

3.1.6 Plants

The data search returned 16 records of plants within 2km of the site. All except one, are records for Bluebell (*Hyacinthoides non-scripta*), the closest being at 306m from the site. The remaining record is for Cornflower (*Centaurea cyanus*) at 1685m.

3.1.7 Reptiles

The data search returned 6 records of reptiles within 2km of the site;

- 1 Slowworm (*Anguis anguis*), at 649m from site
- 3 Grass Snake (*Natrix natrix*) closest is at 649m from site

3.1.8 Amphibians

The data search returned 10 records for amphibians;

- 9 Common Frog (*Rana temporaria*) the closest at 316m from site
- 1 Common Toad (*Bufo bufo*) 1192m from site

3.1.9 Bony Fish

The data search returned 16 entries for bony fish;

- 4 Brown/Sea Trout (*Salmo trutta*) the closest is at 543m
- 5 Atlantic Salmon (*Salmo salar*) the closest is at 543m
- 1 Eel (*Anguilla anguilla*) at 543m

3.1.10 Lower Plants/Lichen

The data search returned 5 records for Lichens, all for Witche's Whiskers (*Usnea florida*), the closest recorded at 685m from site.

3.1.11 Invasive Non-native species

The data search returned 140 entries for INNS, the closest being



- 69 entries for Japanese Knotweed (*Fallopia japonica*) closest at 280m
- 17 entries for Himalayan Balsam (*Impatiens glandulifera*), closest at 306m

3.1.12 Statutory Designated Sites

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

3.1.13 Non-statutory Designated Sites

The data search showed that there were a number of SINCs in the search buffer:

NEATH CANAL (100m)
RESOLVEN ALLUVIAL MEADOWS (1256m)
SARN HELEN (1186m)
RHEOLA LOWLAND GRASSLAND (1645m)
RESOLVEN MINEWATER TREATMENT AREA OMH (1967m)
ST DAVID'S GRAVEYARD (643m)
RESOLVEN MINEWATER TREATMENT UNITS (1621m)

Wildlife Trust Reserves:
Melincwrt Falls (693m)

3.1.14 NRW Priority Areas

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

19 Ancient Semi Natural Woodland
20 Restored Ancient Woodland Site
21 Plantation on Ancient Woodland Site
5 Ancient Woodland Site of Unknown Category

21 Woodland – PAWS NRW Priority Area

3.1.15 Regionally Important Geodiversity Site

Melin Court Brook Waterfalls And Iron (Melin Court Part I) (610m)
Melin Court Brook Coal (Melin Court Part II) (1111m)

3.1.16 CCW Phase 1 Survey

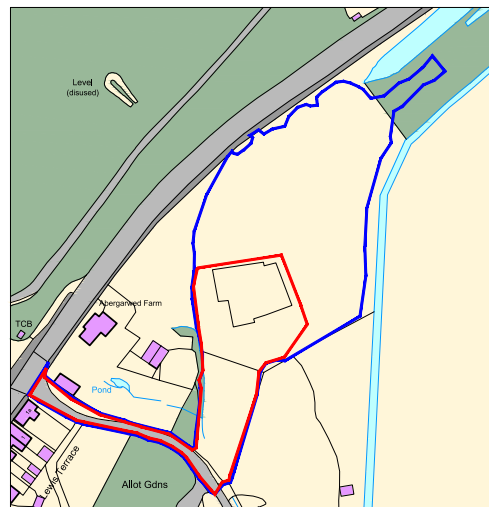
Information obtained from the Phase 1 Survey of Wales (CCW.1997), was also used to provide an indication of the broad habitat types previously recorded in the local area. The survey mapped the areas of existing grassland as either improved, or poor semi-improved grassland. It should be noted that whilst the CCW data-set is useful to indicate broad habitat types locally, it is not suitable for site specific assessment. The data set was gathered over a period of years (1979 – 1997) and habitats will have changed in the interim period depending on land use, management, development works etc.



3.2 Site Appraisal

3.2.1 On site survey

- 3.2.2 The site survey was undertaken on 19th May 2020 by a suitably qualified ecologist. Where possible, the habitats were cross referenced to any important UK priority habitats or local habitats adopted by the Local Nature Partnership.
- 3.2.3 The site is located off a private track, accessed from the B4242 which runs through the village of Abergarwed, near Resolven in the administrative county of Neath Port Talbot.
- 3.2.4 The site is currently being used to store scaffolding materials and sits within a larger area of brownfield land under the same ownership (blue line boundary Fig. 2a). Boundaries of the wider site include a tree-lined stream, a short section of the former Neath Canal and stone retaining wall along the B4242.
- 3.2.5 The land within the red line site boundary (see Fig. 2a) comprises mainly of Previously Developed Land (brownfield), with a little scrub and a section of old stone wall, being part of the original boundary of Abergarwed Farm adjacent. See Fig. 2b below for aerial image.



Notes		Absolute Scaffolding	
Copyright Survey, G. Green Copyright 2018. All rights reserved. Licence number 10002042		Industrial Units Land to South of Neath Road B4242 SA11 4DL Site Location Plan 16/02/2020 1:10 PM NC074 001 16 Queen Victoria Road, Llanelli, SA15 2TL 01554 778 730 info@darkinarchitects.com darkin architects drawing experience	
THIS DRAWING IS THE PROPERTY OF DARKIN ARCHITECTS AND MAY NOT BE COPIED, ALTERED OR REPRODUCED IN ANY FORM OR PASSED TO A THIRD PARTY WITHOUT THEIR CONSENT. DESIGNERS MUST BE CHECKED AND VERIFIED ON SITE AND ANY DISCREPANCIES SHOULD BE REPORTED TO THE ARCHITECT. THIS DRAWING MUST NOT BE SCALED AND SHOULD BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS. IF IN DOUBT ASK FOR CONFIRMATION.		RIBA Chartered Practice	



Figure 2a. Site Location Plan.

Fig. 2b. Aerial image of site surveyed (outlined in yellow) from GoogleMaps

Habitats recorded within red line boundary were as follows: -

3.3 Previously Developed Land (Ephemeral/short perennial)

- 3.3.1 There are small areas of gravel covered land either side of the yard entrance and surrounding the existing concrete platform support. A proportion of it is bare (see Fig. 3) but where it is vegetated, a number of species typical of low nutrient soils can be seen including abundant Lesser Bird's-foot Trefoil, Medick, Ox-eye daisy, Wild Strawberry and Ribwort Plantain, (See Fig.4). Scrub species including Western Gorse and Buddleia are regenerating after being cut/disturbed (see Fig. 5).
- 3.3.2 More developed vegetation can be seen in the remnant 3-4m strip between the adjacent farm/garden, along the western boundary, and the current storage area (see Fig. 6). Access was somewhat restricted due to materials and storage racks, but Ox-eye Daisy, Vetch spp. and Plantain were evident.



Figure 3. Bare ground of entrance track, with vegetated areas either side



Figure 4. Low growing vegetation on Previously Developed Land



Figure 5. Regenerating Gorse and Buddleia scrub



Fig. 6. Remnant habitat developing along western boundary

3.4 Stone wall (with associated scrub)

- 3.4.1 Although somewhat hidden by scrub such as Bramble and immature Ash trees, a section of old stone wall can be seen along part of the western boundary of the site. It looks to be of dry construction, but any mortar/cement pointing is likely to be in poor condition given the amount of scrub cover. See Fig. 7.



Fig. 7. Section of stone wall behind Bramble cover



3.5 Bare areas (with INNS)

- 3.5.1 Remaining areas within the site contain patches of Japanese Knotweed which have been treated with herbicide. Some evidence of re-growth is visible. See Fig. 8.



Figure 8. Japanese Knotweed (treated with herbicide)

3.6 Other features

- 3.6.1 The entrance track from the main road is tarmac with gravel areas adjacent. There is a narrow amenity grass verge and a number of conifers, garden shrubs and Japanese Knotweed. A wider area of verge close to the road junction has been treated with herbicide.
NB. This feature is of little biodiversity importance and will not be discussed further in this report.



Figure 9. Tarmac access track with grass verges

3.7 Badgers

- 3.7.1 There is insufficient grassland suitable for Badger foraging. There is very little suitable habitat for setts on the site, although the scrub and riparian corridor north and east of the site has some potential. No evidence of badger activity was found within the site or adjacent habitats in the larger area under ownership.

3.8 Bats

- 3.8.1 There are no structures or mature trees on site and very little in the way of suitable foraging areas. The tree-lined riparian corridor off site is likely to provide flight lines and foraging opportunities for generalist species such as pipistrelle.

3.9 Otters

- 3.9.1 The watercourse adjacent to site (along eastern boundary), is likely to be suitable for Otter and the site is within 300m of the open water section of Neath Canal and c.200m River Neath. The watercourses were not surveyed as they are off site. No evidence of Otter activity was noted on site; however, records show Otter in several locations close to site (141m).

3.10 Reptiles

- 3.10.1 There is very little vegetated ground remaining, therefore little in the way of forage provision for reptiles, however there are a mix of habitats beyond the red-line boundary including scrub, vegetated stony banks and riparian corridor which are likely to offer refuge and potentially hibernation sites. There are a number of gardens and allotments close by

which may also offer foraging habitat and refuge for Slow-worm and Common Lizard, while watercourse habitat off-site may be suitable for Grass Snake.

3.11 Amphibians

- 3.11.1 There are no waterbodies on the site, although the denser peripheral scrub (around the larger site) may be suitable for terrestrial phase amphibians.

3.12 Hazel Dormouse

- 3.12.1 There are no large areas of scrub or native hedgerows on site and the site was deemed unsuitable for Dormouse. However, the eastern boundary of the larger site is a tree-lined riparian corridor which is connected to large native woodland to the NE and continues as riparian corridor to the south, joining the tree-lined River Neath and Neath Canal.

3.13 Water Voles

- 3.13.1 The watercourse adjacent to site was not surveyed but could potentially be suitable for water voles. However, there are no records returned for this species.

3.14 Birds

- 3.14.1 A number of bird species were observed during the survey; Great-tit (*Parus major*), Wren (*Troglodytes troglodytes*) and Robin (*Erithacus rubecula*). The Previously Developed Land element of the site is likely to provide forage for a limited number of species. However, the scrub and trees around the periphery of the site/larger site will provide nesting, feeding and shelter for a range of bird species including Dunnock (*Prunella modularis*) and Bullfinch (*Pyrrhula pyrrhula*).

3.15 Marsh Fritillary

- 3.15.1 There is no Marshy Grassland on site, which is the primary habitat requirement for Marsh Fritillary, therefore the site is deemed unsuitable for this species.

3.16 Invasive Non-native species (INNS)

- 3.16.1 As noted previously (section 3.5.1), there are a number of areas of Japanese Knotweed on and adjacent to site. There is also Buddleia throughout the site. Himalayan Balsam is present on the larger site, in the northern most end close to the canal.



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.

4.3 Assessments on the Habitats & Species Identified During the Survey

4.4. Habitats

4.4.1 Previously Developed Land (PDL)

While the vegetated areas of PDL will provide forage for a range of invertebrates, small mammals and birds, there is very little of this habitat remaining within the red-line boundary, however what remains is a cohesive part of the more significant areas which remain within the blue-line boundary. There appears to be very few areas, if any, supporting habitats similar to this (PDL) in the immediate neighbourhood (assessed using Google Earth images from 2006-2018). The habitat value has been assessed as: **Low Local**. Loss of this habitat, without mitigation, is considered to be **Minor**.

4.4.2 Stone wall (with associated scrub)

The stone wall and will provide habitat for a range of small mammals and birds and invertebrates. However, it is a very short section and so the habitat value has been assessed as: **Negligible**. Loss of this habitat, without mitigation, is considered to be **Negligible**.

4.5 Species

- 4.5.1 The field survey identified the on-site habitats as having the potential to support the following species Breeding Birds, Invertebrates, Bats (commuting), Reptiles and Amphibians.
- 4.5.2 During the field survey, no bird species, which are listed under the 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 Dunnock and Bullfinch.
- 4.5.3 The site has been disused for a number of years (client pers. Comm.) and so levels of disturbance will have increased since site occupation.

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

- 4.6.1 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.
- 4.6.2 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.
- 4.6.3 Area loss can cause populations of organisms to decline due to a decrease in habitat size. The area to be developed consists of concrete hard standing, with small areas of vegetated and bare ground. Some boundary maintenance work is planned which may affect/remove some scrub, small trees and grassland.
- 4.6.4 The areas of PDL on site are part of a larger area of similar habitat within the blue-line boundary (totaling c.0.4ha), however the larger site is somewhat isolated; there appears to be no other brownfield habitat viably connected to the site. An area of agricultural pasture/grassland lies to the east but is separated from the site by the small watercourse and the road (B4242).
- 4.6.5 The quality of the habitat (on-site and within the wider site) is compromised by the presence of INNS, especially Japanese Knotweed, Himalayan Balsam and a number of

garden escapes. Quality will continue to reduce if INNS and scrub are allowed to develop over the remaining areas. Sensitive application of approved herbicide will balance the need for eradication of INNS and protection of remaining habitat.

- 4.6.6 The planning application is for a development for a single building constructed on part of the existing concrete platform. Without details of any proposals for improvement works to access tracks, site boundaries or similar operations, it is presumed that only the area of concrete will be subject to permanent change as a result of the development. Some areas of PDL vegetation close to the base may be disturbed/lost as a result of construction, and associated works to access tracks, materials storage areas etc. is likely to impact a proportion of habitat within the red line boundary. By its very nature, the vegetation associated with PDL is resilient to disturbance, so where it is not removed or covered by tarmac or other less permeable substrate, it will re-grow in time.
- 4.6.7 Boundary habitats – walls and scrub/tree-lines on site are minimal in size/length and of poor quality (not dense, poor species mix). They are of limited connectivity value. Similar habitats around the larger site are of better quality and high connectivity value. The limited development footprint is unlikely to affect the quality or integrity of such features.
- 4.6.8 If the habitats on site are destroyed without any mitigation for development, the impact is expected to be **Minor**.
- 4.6.9 **It is therefore recommended, that in order to mitigate for loss of PDL habitat, the new building should be designed with a green/brown roof system, to provide nectar and micro-habitat for invertebrates. Provided that an Aftercare Plan is put in place and ongoing maintenance is undertaken, residual impacts will be zero.**
- 4.6.10 Additionally, in order to *enhance* the site for biodiversity, remaining areas of vegetated PDL within the site and blue-line boundary (larger site) should be maintained in a vegetated state, (allowing a mix of ephemeral/ short perennials, some areas of tall ruderal and native scrub particularly Gorse), and monitored for spread of INNS, which should be treated according to any agreed INNS control plan for the site.
- 4.6.11 Existing scrub and tree-lines around boundaries should be retained and can be enhanced by additional planting, which will provide improved habitat quality, increase habitat area and connectivity; e.g. new hedgerow should be planted, and/or existing hedgerows/treelines be gapped up to re-connect to adjacent hedgerows and riparian corridors. **Provided that an Aftercare Plan is put in place and ongoing maintenance is undertaken, residual impacts will be zero.**

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 Low Local-ecological value. In combination with adjacent watercourses, boundary features, trees and riparian vegetation, the site offers a varied habitat for a range of animal groups.

No further surveys are recommended; however, a precautionary approach should be taken, therefore a number of Method Statements are recommended:

5.2 INNS

- 5.2.1** It is recommended that a suitable INNS treatment plan be provided to and agreed with the LPA.
- 5.2.2** Any **Method Statement or Management plan** for the eradication of Japanese Knotweed and Himalayan Balsam which includes the application of herbicide, must only use chemicals which are suitable for use near watercourses. The plan must include details of Prevention of Spread (within and off site).

5.3 Birds

- 5.3.1** 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.
- 5.3.2** Any loss of bird habitat (scrub, trees) must be mitigated for by way of suitable provision on site. This may partly be encompassed in the Landscaping Plan, with the inclusion of new hedging, trees, fruit/seed bearing planting.

5.4 Bats

- 5.4.1** The hedgerows/tree-line riparian zone 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 features into consideration.

5.5 Amphibians & Reptiles

- 5.5.1** The boundary features (including any scrub, walls, grassland/vegetated PDL) should be retained and protected from the effects of development.

5.6 Otter & Water Vole

- 5.6.1** The stream and riparian zone are off site, but development should not encroach beyond a 7m vegetated buffer. If Otter or signs of Otter/Water Vole are observed during construction, work must cease, and advice sought from Natural Resources Wales or I&G Ecological Consulting Ltd.

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 [Countryside 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)*, website accessed 10 Dec. 2018.

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.

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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.

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9. Representative Species List

Boundary Scrub, Tree-line

Species	Frequency
Ash – <i>Fraxinus excelsior</i>	O
Blackthorn – <i>Prunus spinosa</i>	R
Bramble – <i>Rubus fruticosus</i> agg.	F
Dog rose – <i>Rosa canina</i>	O
Hawthorn – <i>Crataegus monogyna</i>	F
Western Gorse – <i>Ulexi galii</i>	O
Willow – <i>Salix</i> spp.	O

Vegetated PDL

Species	Frequency
Common Knapweed – <i>Centaurea nigra</i>	F
Lesser Bird's-foot Trefoil – <i>Lotus corniculatus</i>	A
Medick – <i>Medicago lupulina</i>	LA
Ox-eye Daisy – <i>Leucanthemum vulgare</i>	D
Red Clover – <i>Trifolium repens</i>	R
Ribwort Plantain – <i>Plantago lanceolata</i>	F
Scentless may weed - <i>Tripleurospermum inodorum</i>	O
Self-heal – <i>Prunella vulgaris</i>	O
Silverweed – <i>Potentilla anserina</i>	O
Willowherb spp. – <i>Epilobium</i> species.	O
Yarrow – <i>Achillea millefolium</i>	O

DAFOR: D=dominant, A=abundant, F=frequent, O=occasional, R=rare
LA = locally abundant

10. SEWBRc/Aderyn Data Search

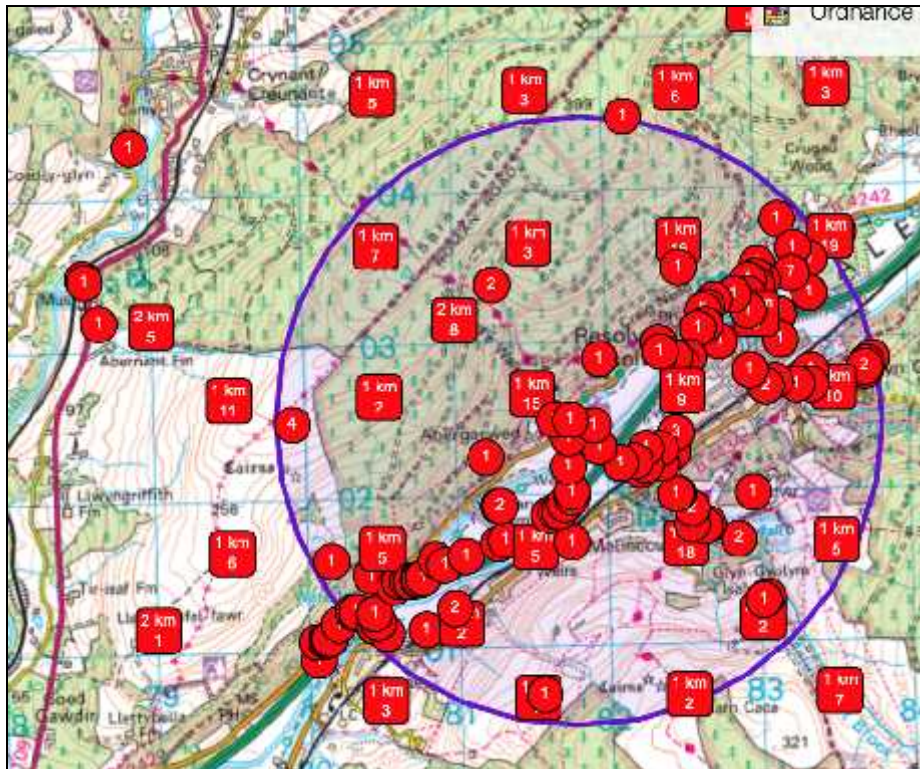


Figure 10. Aderyn Protected Species Data Search 26 June 2020

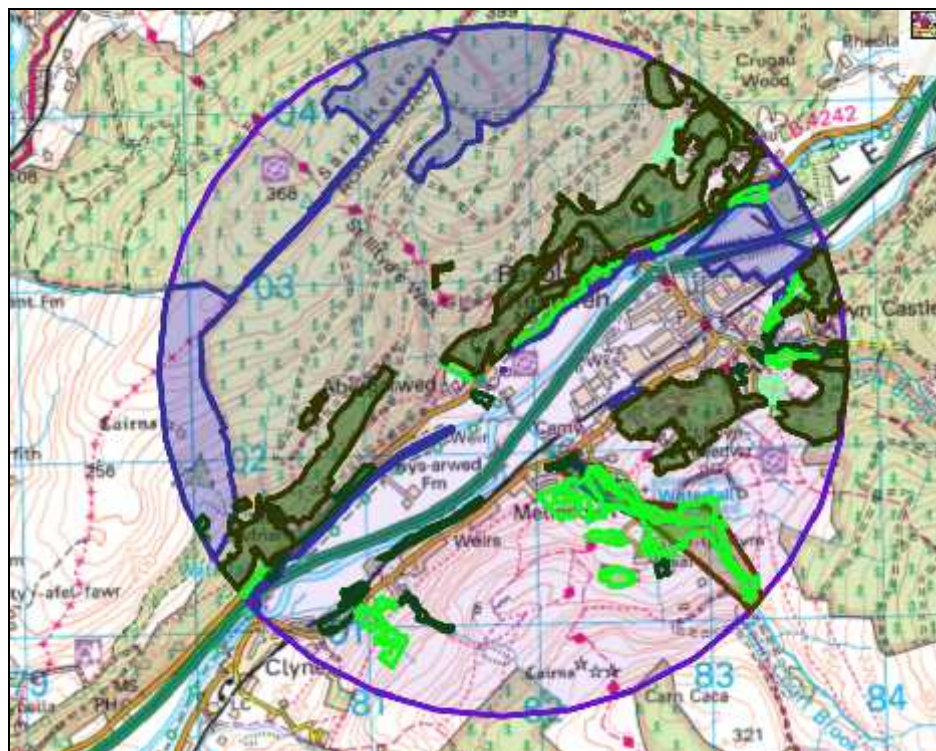
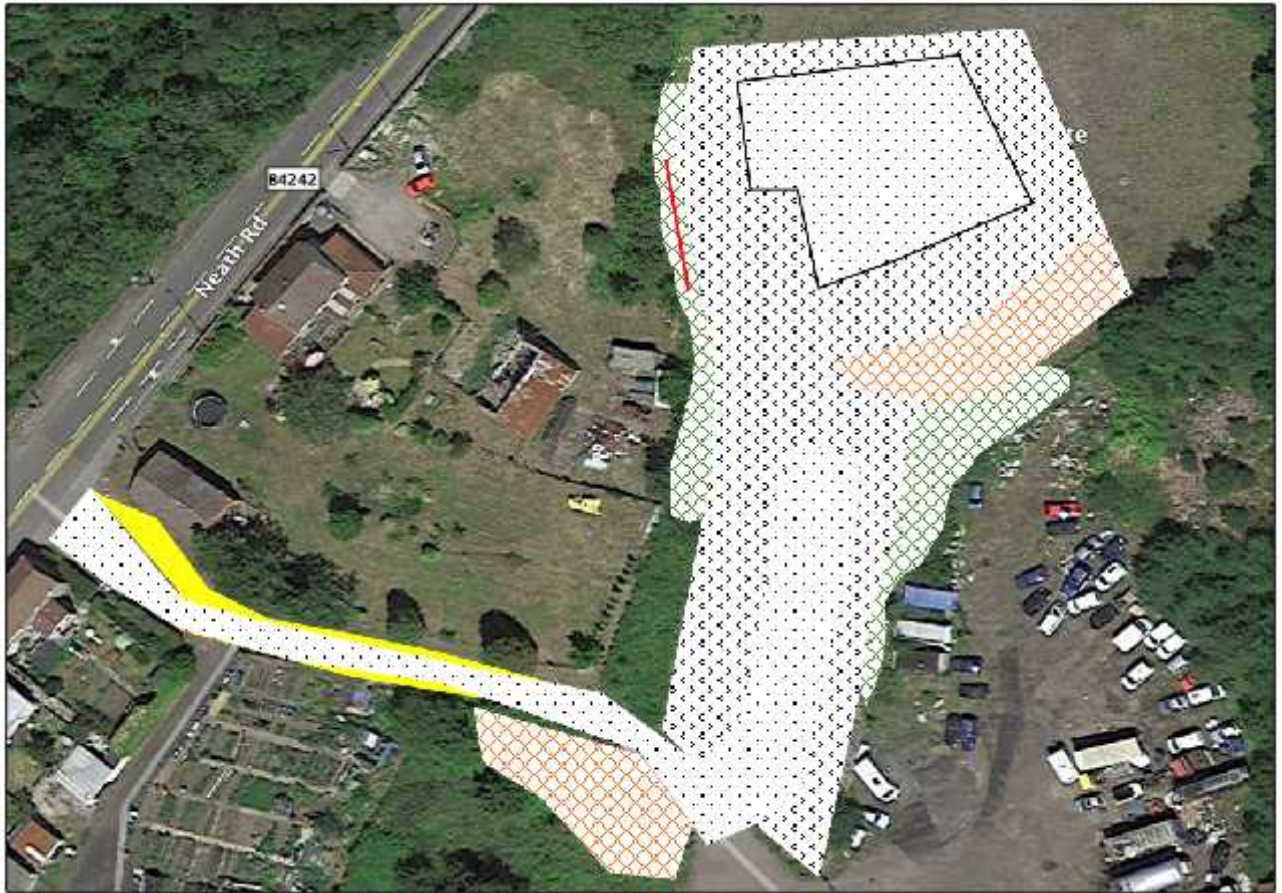


Figure 11. Aderyn Protected Sites Data Search 26 June 2020

Phase 1 Habitat Plan



Phase 1 Habitat Code Key:

Colour	Code	Description
	J1.3	Ephemeral/short perennial
	J4	Bare ground
	A2.1	Dense/ continuous scrub
	J1.4	Introduced shrub (JK)
	J1.2	Amenity grassland
	J5	Wall