

**DAVID CLEMENTS ECOLOGY LTD**

**BRO TATHAN BUSINESS PARK, GLAMORGAN  
WEST ORCHARD**

**DORMOUSE SURVEY REPORT, 2022**

**February 2023**

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<b>SURVEYOR(S):</b>	<b>Name:</b>	<b>Role:</b>
	Z Beynon, K Perera & M Stewart	Dormouse tubes deployed
	Z Beynon, K Perera & M Stewart	Dormouse tubes checks
	Z Beynon	Dormouse tubes checks
	Z Beynon	Dormouse tubes checks
	Z Beynon	Dormouse tubes checks
	Z Beynon	Dormouse tubes checks
	Z Beynon, K Perera	Dormouse tubes checks and collection
		<b>Date(s)</b>
		29/04/2022
		27/05/2022
		24/06/2022
		29/07/2022
		18/08/2022
		23/09/2022
		26/10/2022

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## SUMMARY

- This report refers to an area of land laying immediately to the south of the former St Athan Airbase site in the Vale of Glamorgan, South Wales. It is referred to as West Orchard.
- Part of the site is proposed for a solar development, but detailed proposals for the site are not available at the time of writing.
- The site contains marshy grassland, semi-improved species-rich neutral and calcareous grasslands, a small natural watercourse and native hedgerows. There is also a scatter of large mature ash trees. The hedgerows and scrub habitats on the site appear superficially suitable for dormouse.
- Dormouse, a protected species, has previously been found at several recent locations within 2km of the site, including in woodland habitats immediately adjacent to the east and at a distance of less than 0.25km away.
- The present survey found a single dormouse nest on the site. It is therefore highly likely that a small population of this species occupies the site.
- Impacts, or potential impacts, to habitats occupied by dormouse are a statutory matter, and would be subject to implementation of mitigation measures to the satisfaction of the statutory nature conservation body: Natural Resources Wales (NRW). Any works which adversely affect these habitats, either directly or indirectly, would be subject to prior licensing by NRW.
- The legal constraints relating to dormouse also apply to any other habitats which may be occupied by this species, including any patches of scrub or bramble etc within the site. Clearance of any such habitats in the absence of an appropriate licence from NRW, or not otherwise in accordance with a methodology which has been agreed with NRW, could potentially constitute an offence under the Habitats Regulations 2017.
- In the absence of appropriate mitigation, any future development could cause significant adverse impacts to the dormouse present and the habitats that support this species. Appropriate mitigation and compensation will therefore be required where habitats of the site which are suitable for dormouse use cannot be retained within a new development.
- In-principle, it is considered likely that a solar generation development could be implemented on the site without causing unacceptable adverse impact to dormouse.
- Recommendations for the avoidance and mitigation of adverse development impacts concerning dormouse are provided.

## 1.0 INTRODUCTION

- 1.1 This report has been prepared by David Clements Ecology Ltd (DCE) on the instructions of the Welsh Government (WG). It refers to an area of land known as West Orchard, which lies immediately south of the former St Athan Airbase site in the Vale of Glamorgan, South Wales. The site is approximately 5.8 ha in extent.
- 1.2 The site contains marshy grassland, semi-improved species-rich neutral and calcareous grasslands, a small natural watercourse, four ponds and sections of native hedgerow, all of which are considered to be of ‘principal importance’ for conservation in Wales (Environment (Wales) Act 2016, Section 7; WBP 2016a). Also present are species-poor neutral grassland, bramble scrub and a scatter of large mature ash trees.
- 1.3 An Ecological Assessment of the site was carried out by DCE in 2021 in which further surveys for dormouse, a protected species, were recommended (DCE 2021).
- 1.4 Hazel dormouse (*Muscardinus avellanarius*) and their breeding sites and resting places are protected by law, both under the Wildlife & Countryside Act 1981 (as amended), and the EU Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna (92/43/EEC; the ‘Habitats Directive’), implemented in the UK via the Conservation of Habitats & Species Regulations 2017 (the ‘Habitats Regulations’) (see Appendix 1). The continuity of habitats occupied by dormouse with other areas of similar connecting habitat may also be a statutory matter for consideration under the Regulations. Dormouse is also listed as a species of ‘principal importance’ for conservation in Wales under Section 7 of the Environment (Wales) Act 2016.
- 1.5 The aim of the present survey was to establish whether dormouse is present on the site, and if so to estimate their numbers. The results of the survey are set out in the present report.

### *Existing Records*

- 1.6 Existing records for the site which are in the public domain have been obtained from the South-East Wales Biological Records Centre (SEWBReC) and are incorporated where relevant.

### *Methods & Approach*

- 1.7 The hedgerows and dense scrub habitats of the site are well connected and potentially suitable for dormouse. They were therefore subject to a nest-tube survey for dormouse in accordance with the advice set out by Bright *et al* (2006). A total of 50 nest tubes were deployed in suitable locations on 29th April 2022 (See Plan 1). The tubes were checked at monthly intervals from late May to October and any evidence of dormouse recorded. Searches for hazel nuts handled by dormouse were also made on each survey occasion.

## 2.0 SURVEY RESULTS

2.1 The local records centre (SEWBReC) holds recent records for dormouse approximately 250m away from the site, comprising a dormouse nest and a potential dormouse nest (LERC Ref: 0223-467). Other records exist of a single adult dormouse and dormouse nest found 1.9km away (WYG, 2017), and another dormouse nest was found by TACP some 1.65km away in June of this year (F Vallely, *pers comm*). DCE has also previously carried out dormouse surveys in the wider area, and found a potential dormouse nest some 1.6km northwest of the site (DCE, 2022).

2.2 A dormouse nest was also recorded on the West Orchard site during the present survey. This nest was found along the southern hedgerow boundary of the site, towards the centre (see Target Note 1, Plan 1). A small number of wood mouse nests and individual wood mice were also found at various locations across the site, as well as occasional evidence of birds. A summary of the survey results is shown below in Table 1:

Date	Results
29 <sup>th</sup> April 2022	Nest tubes deployed
27 <sup>th</sup> May 2022	No dormouse or other evidence found
24 <sup>th</sup> June 2022	1x bird faeces
29 <sup>th</sup> July 2022	1x bird faeces
18 <sup>th</sup> August 2022	5x bird faeces
23 <sup>rd</sup> September 2022	1x dormouse nest
26 <sup>th</sup> October 2022	2x wood mouse, 2x wood mouse nest

**Table 1: Results of Dormouse Nest-tube Survey, 2022**

**3.0 ASSESSMENT**

- 3.1 Combined with the known occurrence of dormouse in similar habitats in the surrounding area, it was not unexpected that this species should also be found within the West Orchard site as well. Based on the present survey results, it is considered likely that there is a small population of this protected species living and presumably breeding on the site. This result accords with the subjective assessment made by the surveyor on the site at the time that most of the hedgerows within the site, as well as most of the dense scrub habitats, were potentially suitable for use by this species.
- 3.2 The site is proposed for a solar generation development, details of which are not available at the time of writing. However, it is currently understood that the southern boundary hedgerow where the dormouse nest was found is to be retained.
- 3.3 Without knowledge of the detailed development proposals it is not possible to estimate the extent to which the proposed development would result in the loss or disturbance of those habitats which are important to any dormouse population utilising the site. In the absence of appropriate mitigation, development could have a long-term negative impacts on this protected species, for example by severing commuting links to the wider landscape or through any requirement to aggressively trim hedgerows and/or scrub habitats to prevent overshadowing of the solar panels etc.
- 3.4 Notwithstanding the potential for such adverse impacts, however, it is considered likely that a suitably designed and managed solar generation development could be implemented on this site which does not result in unacceptable impact to the resident dormouse population.

## 4.0 RECOMMENDATIONS

### *Statutory Obligations*

- 4.1 Any site clearance or development work which would potentially affect dormouse or the habitats which they occupy, whether directly or indirectly, must take place under a derogation licence issued in advance by Natural Resources Wales (NRW).
- 4.2 The derogation licence must include a detailed Method Statement setting out the methodology and timing etc of the works necessary to achieve the proposed development, and set out how this will avoid causing unacceptable harm or disturbance both to the habitats occupied by dormouse and to avoid causing death, injury or unacceptable disturbance to this species at any stage during the site's clearance, construction or subsequent operation. The licence is also likely to require the implementation of a long-term Dormouse Conservation Plan for the developed site which is aimed at maintaining this species on the site.
- 4.3 The Method Statement is likely to require the creation of new dormouse habitat to compensate for any which may be lost as a result of the development, usually in at least a 2:1 replacement ratio. Such habitats could include new native hedgerows, for example, or suitable areas of scrub or woodland. Where these replacement habitats cannot be created within the site, it may be necessary to create new habitats off-site in a location which is adjacent to or otherwise connected to the developed site by appropriate woody corridors of a type which is used by dormouse. Any retained and/or created habitats will require a long-term management and monitoring plan, to be funded and implemented at the developer's expense.

### *General Principles for Mitigation*

- 4.4 The existing hedgerows and scrub habitats should be retained wherever possible within the proposed development, buffered by a corridor of at least 5m width or 7m from the centreline of any hedge. New native hedges should be created along any new or existing boundaries which do not currently support hedgerows. Existing links with hedges and woodlands off-site should be maintained, and where possible enhanced with new native plantings. Where access is required within the site and is likely to sever existing woody habitat links for dormouse to the wider environment, planting of additional hedgerows and/or the installation of dormouse bridges will be required in order to mitigate the severance impacts by providing an alternative means of crossing the breach.
- 4.5 New plantings of indigenous native trees and shrubs should be included in the site landscaping and should have canopy contact with the surrounding hedges wherever possible. Suitable planting species are indicated at Appendix 2. These should also contain a good range of food-plant species used by dormouse including hazel, hawthorn, blackthorn and honeysuckle. Hedgerows should be subject only to intermittent trimming in the winter months only where essential, and in accordance with a long-term management plan.
- 4.6 Dormouse habitats must not be illuminated at night. In the event that the new development requires any artificial lighting at night, any light spillage onto hedgerows and other scrub habitats from the development must be no greater than 0.2 lux. Light

spillage into adjacent habitats should generally be avoided, and brightness kept to the lowest permissible level in the areas adjacent to such habitats. Any night-time lighting scheme for the site should be in accordance with the guidance provided by the Bat Conservation Trust<sup>1</sup>.

- 4.7 Any retained habitats should be securely fenced off with appropriate temporary fencing (eg 'Heras' fencing) at the start of the site clearance and construction works in order to prevent access and incidental damage to trees and shrubs by site vehicles, equipment and personnel. The retained hedgerows, trees and shrubs of the site should all be treated in accordance with British Standard BS 5837 (2012) *Guidance on the Treatment of Trees in Relation to Design, Demolition & Construction*.
- 4.8 Contractors should be provided with a 'toolbox talk' at the outset of site clearance and construction works setting out the known and possible habitat and species constraints, and the mitigation measures which are required. The toolbox talk should also set out procedures to be followed in the event that there are unexpected encounters with protected species etc. All contractors carrying out dense scrub / hedgerow / tree clearance works (if appropriate), should be warned of the possible presence of dormouse, as well as other protected species such as nesting birds, badger, reptiles, etc and of their protected status. It should be clearly understood that in the event of any being found during works, all works should cease in the affected area until appropriate expert advice has been sought.

## 5.0 REFERENCES

**Bright, P, Morris, P & Mitchell-Jones, A (2006)** *The Dormouse Conservation Handbook* (2<sup>nd</sup> Edition). English Nature, Peterborough.

**David Clements Ecology Ltd (2021)** *Bro Tathan Business Park, Glamorgan, West Orchard, 'Carbon Free in Five' Development: Ecological Assessment*. Unpublished report to Welsh Government, v.1.0, Aug 2021.

**David Clements Ecology Ltd (2022)** *Picketston, Bro Tathan, Vale of Glamorgan: Hazel Dormouse Survey*. Unpublished report to Welsh Government, v.1.0, Nov 2022.

**WYG (2017)** *St Athan Northern Access Road, Vale of Glamorgan Ecological Assessment, May 2017*. Unpublished report to the Welsh Government.

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<sup>1</sup> <https://www.bats.org.uk/our-work/buildings-planning-and-development/lighting>



## APPENDIX 1: STATUTORY & POLICY FRAMEWORK FOR BIODIVERSITY

The following sets out a brief review of the key legal and key policy elements affecting wildlife species in Wales. It is not intended to be comprehensive and only the most recent and relevant articles are mentioned.

The review sets out our interpretation and understanding of key elements of the legislation and policy insofar as they apply to typical planning and development operations, based on our experience. The interpretations given below are for guidance only, however, and do not constitute legal advice. In all cases the reader is advised to consult the original legal and policy documents for the definitive wordings, and where necessary to obtain qualified legal advice.

### **The Conservation of Habitats & Species Regulations 2017 ('Habitats Regulations')**

The Habitats Regulations were originally enacted to implement the obligations of *EU Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora & Fauna* (the 'EU Habitats Directive') into British law, and in so doing created the highest tier of legal protection for wildlife species in UK, the so-called 'European Protected Species' (EPS). These species include, *inter alia*:

- All species of bats
- Hazel dormouse ('dormouse')
- Eurasian Otter ('otter')
- Great crested newt
- Natterjack toad
- Sand lizard
- Smooth snake

The Regulations also cover a small number of very rare plant species such as lady's-slipper orchid.

The requirements of the Habitats Regulations were given continuance following the UK's withdrawal from the EU ('Brexit') in 2019 by the *Conservation of Habitats & Species (Amendment) (EU Exit) Regulations 2019*, and therefore continue to apply unchanged at the time of writing. EPSs are hereafter referred to as 'Habitats Regulations Species' (HRS) to reflect this change in the legislative framework.

In summary, and *inter alia*, all HRS animal species are protected as individuals against deliberate killing, injury, capture or disturbance, at all stages of their lives, and in addition, the places used for breeding or resting by these species may not be damaged or destroyed. Breeding and resting places are also afforded protection against deliberate disturbance, or the blocking of access, under the amended *Wildlife & Countryside Act 1981* (see below). HRS plant species may not be picked (in any part), collected, uprooted or destroyed at any point in their life cycle.

The main exceptions to these provisions are either that the activities were authorised by the relevant statutory body (in this case, Natural Resources Wales – NRW) and, where required, were carried out under a licence ('derogation') obtained in advance. Offences which occur as an incidental result of some other otherwise lawful activity (ie 'accidental' or 'unintentional' offences) are not exempt under the Regulations but may be viewed more leniently where (a) they could not reasonably have been foreseen, (b) the activity causing the offence ceased as soon as the presence of HRS, or their habitats, became apparent, and (c) NRW were informed immediately and appropriate expert advice sought to evaluate and remediate the situation.

### **Bats**

The legal protection covers any place or feature which is used for resting during the day ('day roosts') and also any places which are used for hibernation in winter. Places which are used for short periods of resting at night ('night roosts'), or as customary stations for the handling and processing of food ('feeding perches'), are not usually accorded the same level of importance as day roosts and hibernation sites, although they are in fact still subject to the Regulations and in some cases may be deemed important enough to be accorded full protection.

### **Dormouse**

Protection is usually considered to extend to any habitat, such as woodland, scrub, hedgerows and bramble stands etc, where dormouse occurs and where nests may therefore be present. The continuity of the habitats occupied by dormouse with other areas of similar connecting habitat may also be a matter for statutory consideration under the Regulations.

### **Otter**

Protection is usually considered to extend to any watercourse or waterbody which is used by otter, and which may therefore contain nests or resting places ('holts'). It also extends to any areas of terrestrial habitat away from watercourses and waterbodies where these also contain holts, and the connectivity of such places with the occupied aquatic habitats may also be a matter for statutory consideration under the Regulations.

### **Great crested newt**

Protection is usually considered to extend to any watercourse or waterbody which is occupied by great crested newt (GCN), and which may therefore be used for breeding. It also extends to any terrestrial habitats used by GCN during its non-aquatic phases, especially those places which are used for hibernation in winter or sheltering during adverse

weather conditions. Typically the latter will be physically connected to a breeding pond (or ponds) but may lie anything up to 2km away. At minimum, a terrestrial hinterland of 10m width around the edges of a breeding pond will be considered to be protected where this contains habitats which are suitable for terrestrial use by GCN.

### ***Protected Sites***

The Habitats Regulations also set out to protect certain rare and valuable habitat types, such as ancient semi-natural woodland, heathland, bogs and species-rich grasslands etc. This is done through the identification and designation of specifically protected sites known as Special Areas of Conservation (SACs). SACs are subject to the highest level of legal protection against damage, destruction, degradation or harmful uses or activities which is available in the UK. All such sites are also designated as Sites of Special Scientific Interest (SSSIs) under the Wildlife & Countryside Act 1981 (see below).

### **The Wildlife & Countryside Act 1981 (WCA)**

This much amended and complex piece of legislation is the means by which protection is afforded at the next tier of species below the HRSs and is the primary source of protection in respect of birds. Species afforded protection under the WCA include, *inter alia*:

- All species of birds
- Water vole
- Red squirrel
- Common reptiles (ie slow-worm, common lizard, grass snake, adder)
- Marsh fritillary butterfly
- Pearl mussel
- Various plants, ferns, mosses, liverworts, lichens & fungi

### ***Birds***

In summary, all wild birds are protected against deliberate killing, injury or capture, and this protection extends to their eggs and young. It is also illegal to destroy, damage or remove the nest of any bird either while it is in use or being built. For certain rare species which are listed on Schedule 1 of the Act the protections go even further: it is illegal to disturb any Schedule 1 bird species, either deliberately or unintentionally ('recklessly'), while it is building a nest or actually nesting, or to disturb the dependant young of any such bird. Exceptions to these general principles affect some specific game, food or pest species, but only under certain specified and defined conditions and usually in accordance with a licence issued in advance by NRW.

Actions which cause an adverse impact to birds or their nests which arise as an incidental result of some otherwise lawful activity, such as the trimming or removal of hedges, trees or scrub for example, would not constitute an offence provided that the activity could not have reasonably been avoided. As a general result of the provisions of the WCA therefore, the deliberate destruction, removal or clearance of habitats containing nesting birds would almost invariably constitute an offence because the impacts to birds could reasonably have been foreseen and avoided, for example by carrying out the clearance activities at a time when birds are not nesting.

Except under certain specified conditions, the clearance or removal of nests or nesting habitats is generally not illegal if it is carried out at a time of year when no birds are nesting or if it can otherwise be shown that no nesting birds are present at the time (eg by means of advance survey).

Activities which might adversely affect Schedule 1 birds such as barn owl, kingfisher or birds of prey can be undertaken provided a licence has been obtained in advance from NRW and appropriate mitigation measures are put in place.

### ***Animals Other than Birds***

Animals other than birds, such as water vole, red squirrel, marsh fritillary and pearl mussel for example, are listed on Schedule 5 of the Act, and are afforded protection which is generally similar to that of HRSs. The individual animals may not be deliberately killed, injured or captured, in any of their life stages, and it is also illegal to destroy or damage any places which these animals use for shelter or protection, or to disturb an animal using such a place or obstruct access to it, whether deliberately or unintentionally.

As with birds, impacts to Schedule 5 animals which arise as an incidental result of an otherwise lawful activity do not constitute an offence provided those impacts could not have reasonably been foreseen and avoided.

### ***Water Vole & Red Squirrel***

In the case of nest-making animals such as water vole and red squirrel, protection will normally be taken to extend to the entirety of any suitable, or potentially suitable, nesting or sheltering habitats which are occupied by a residential population of the species concerned. The connectivity of these habitats with other similar habitats in the wider vicinity may also be a matter for statutory consideration.

### ***Marsh Fritillary Butterfly & Pearl Mussel***

For species which do not make nests, protection will normally be taken to extend to the entirety of any habitats which are suitable, or potentially suitable, for breeding or sheltering and which are occupied by a residential population of

the species concerned. The connectivity of these habitats with other similar habitats in the wider vicinity may also be a matter for statutory consideration.

### **Common Reptiles**

Slow-worm, common lizard, grass snake and adder are afforded so-called 'partial protection' under the WCA. The animals themselves may not be deliberately killed or injured, but they may be captured and the habitats which support them are not afforded any direct protection in themselves.

As with other Schedule 5 animals, adverse impacts which arise as an incidental result of an otherwise lawful activity do not necessarily constitute an offence provided those impacts could not reasonably have been foreseen and avoided. Under current interpretation this is taken to mean that the destruction or clearance of habitats which are known to support common reptiles, or where such reptiles could reasonably be expected to occur, without the implementation of measures to minimise or avoid causing incidental death or injury to reptiles, would be likely to constitute an offence.

### **Protected Plants**

About 180 species of plants, ferns, mosses, liverworts, lichens and fungi are afforded protection under Schedule 8 the WCA. These may not be intentionally picked (in any part), uprooted or destroyed, unless authorised under licence. As with Schedule 5 animals, adverse impacts which arise as an incidental result of an otherwise lawful activity do not necessarily constitute an offence provided those impacts could not reasonably have been foreseen and avoided.

### **Protected Sites**

The WCA also sets out mechanisms for the protection and conservation of habitats and features of high biodiversity value through the identification and designation of specifically protected sites. These include Sites of Special Scientific Interest (SSSIs), National and Local Nature Reserves (NNRs/LNRs) and National Parks etc. Such sites are subject to wide-ranging legal protection against damage, destruction, degradation, exploitation or other harmful activities or uses.

### **The Protection of Badgers Act 1992 (PBA)**

Badger is protected primarily in relation to animal welfare and cruelty, as a result of illegal persecution. Badgers are protected against intentional killing, injury, 'cruel ill-treatment' or capture in all of their life stages. Their nesting burrows ('setts') may not be destroyed, damaged, dug into or obstructed and it is illegal to disturb a badger while occupying a sett, either deliberately or 'recklessly' (ie unintentionally as a result of failure to take due care). The PBA is also taken to confer a degree of protection to foraging areas which are critical to the support of a badger family-group ('clan') where the loss of this would otherwise result in their starvation. As with other protected species, adverse actions which arise as a result of an otherwise lawful activity do not constitute an offence provided those impacts could not reasonably have been foreseen and avoided. A number of specified exemptions are provided in connection with certain legal farming and fox-hunting activities which may impact badgers.

The protection of setts only applies to those which are in 'current use' and not to those which are abandoned. However, many badger setts are occupied only intermittently throughout the year and therefore 'current use' should not be taken to imply *continuous* use.

Actions to remove badger setts on development sites may be undertaken under a licence issued by NRW and in accordance with agreed mitigation measures, and licences may also be issued to allow the removal or exclusion of badgers from sites. Such operations may not occur during the breeding ('close') season, however, which is usually taken to be between December to June inclusive, due to the risk of trapping lactating females and young below ground.

### **Environment (Wales) Act 2016 (EWA)**

Section 7 of the EWA contains the most recent lists of species and habitats which are considered to be of 'principal importance for the conservation of biodiversity in Wales'. These lists replaced those which were previously given under s.42 of the *Natural Environment & Rural Communities Act 2006*, which in turn replaced the 'Priority Species' listed under the UK Biodiversity Action Plan of 1995 and its Welsh equivalent. Species listed under s.7 of the EWA include many of those afforded protection under the articles described above, including otter, dormouse, water vole, nesting birds, common reptiles and great crested newt, for example, as well as additional species such as:

- W. European hedgehog ('hedgehog')
- Atlantic salmon ('salmon')
- Hornet robberfly
- Brown hare
- Brown & sea trout
- Shrill carder bee
- Harvest mouse
- Garden tiger moth
- Flat sedge
- Polecat
- Cinnabar moth
- Wild chamomile
- European eel ('eel')
- Small heath butterfly
- Common toad

and many other plant and animal species which are not otherwise specifically afforded statutory protection for wildlife conservation reasons (although they may in some cases be afforded some element of protection for other reasons, such as animal welfare or cruelty).

Section 7 of the EWA also identifies a number of habitat-types which are of 'principal value for conservation in Wales'. These include:

- Lowland mixed deciduous woodland
- Hedgerows
- Lowland meadows
- Upland flushes, fens & swamps
- Purple moor-grass & rush-pastures (in Wales, often referred to as ‘rhos pastures’)
- Reedbeds
- Blanket bog
- Sand dunes
- Rivers & ponds

Although not protected as such, the EWA requires statutory authorities to take such ‘Section 7’ species and habitats into account when considering the management and development of sites in Wales, and to take “*all reasonable steps*” to maintain and enhance their populations. The presence of such species and habitats is a ‘material consideration’ on sites where planning permission is sought for development. *Planning Policy Wales (2021)* (PPW, 11th Edition) requires Local Planning Authorities (LPAs) to have regard to the presence of ‘Section 7’ species and habitats and to avoid adverse impacts as a result of development wherever possible. Developments which are considered essential in the public interest must seek to minimise adverse impacts and incorporate appropriate mitigation/compensation measures where adverse impacts cannot be avoided.

#### **Sites of Importance for Nature Conservation (SINCs)**

SINCs comprise so-called ‘third-tier’ sites which have been identified as having biodiversity conservation value at the sub-national (ie regional, county, county-borough or local) level. They are usually identified by the LPA, often in collaboration with other local conservation bodies such as the county Wildlife Trust, and may appear under range of different names (eg ‘Wildlife Site’, ‘County Wildlife Site’ etc). Such sites are not specifically protected in law (ie they are ‘non-statutory’) but they are recognised as a ‘material consideration’ on sites where planning permission is sought for development. As with ‘Section 7’ habitats, PPW (2021) requires LPAs to avoid adverse impacts as a result of development wherever possible, and developments which are considered essential in the public interest must incorporate appropriate mitigation/compensation measures where adverse impacts cannot be avoided.

#### **Invasive Non-native Species**

Schedule 9 of the *Wildlife & Countryside Act (1981)* sets out lists of plant and fauna species which are subject to statutory regulation in Britain. These currently include plants such as Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*) and wall cotoneaster (*Cotoneaster horizontalis*), and animals such as signal crayfish, aquarium terrapin, Asian hornet and copyu. The lists are updated regularly.

The import, sale, transport, cultivation and keeping of these species is generally forbidden except under a specially issued licence, and it is illegal to allow these species to escape or spread into the wild, either deliberately or by accident. This includes any part and all life-stages of the species concerned. Earthworks which might accidentally result in the transfer of Schedule 9 plant material to another location or which encourages it to spread either within or off the site, for example, is forbidden. Any works on a site which might involve contamination by, and potential spread of, any of the listed species must be carried out under an approved method statement designed to prevent them being accidentally dispersed off of or within the site, and which preferably results in their complete elimination wherever this is possible.

## APPENDIX 2: SUITABLE LANDSCAPING SPECIES

All planting stock should be of native species which are indigenous to the region and of Welsh, or at least UK, provenance.

### Semi-natural Woodlands

<b>Canopy Species</b>		<b>Percentage</b>
<i>Quercus robur</i>	Pedunculate oak	40
<i>Quercus petraea</i>	Sessile oak	40
<i>Fraxinus excelsior</i>	Ash	30
<i>Acer campestre</i>	Field maple	20
 <b>Understorey</b>		
<i>Corylus avellana</i>	Hazel	30
<i>Crataegus monogyna</i>	Common hawthorn	30
<i>Betula pendula</i>	Silver birch	)
<i>Cornus sanguinea</i>	Dog wood	)
<i>Ilex aquifolium</i>	Holly	)
<i>Malus sylvestris</i>	Crab apple	)
<i>Prunus avium</i>	Wild cherry	) 40
<i>Prunus spinosa</i>	Blackthorn	)
<i>Rosa canina</i>	Common dog-rose	)
<i>Sorbus aucuparia</i>	Rowan	)
<i>Taxus baccata</i>	Yew	)
<i>Viburnum opulus</i>	Guelder rose	)

Planting should be carried out using 600mm bare-rooted transplants in spiral plastic guards (rabbit/vole protection) where appropriate. Standard tree aftercare should be applied.

### Hedgerows

<b>Canopy Species</b>		<b>Percentage</b>
<i>Crataegus monogyna</i>	Common hawthorn	30
<i>Prunus spinosa</i>	Blackthorn	10
<i>Corylus avellana</i>	Hazel	20
<i>Acer campestre</i>	Field maple	)
<i>Cornus sanguinea</i>	Dogwood	)
<i>Euonymus europaeus</i>	Spindle	)
<i>Fraxinus excelsior</i>	Ash	)
<i>Ilex aquifolium</i>	Holly	) 40
<i>Prunus avium</i>	Wild cherry	)
<i>Quercus robur</i>	Pedunculate oak	)
<i>Rosa canina</i>	Common dog-rose	)
<i>Sambucus nigra</i>	Elder	)
<i>Sorbus aucuparia</i>	Rowan	)
<i>Viburnum opulus</i>	Guelder rose	)
 <b>Climbers</b>		
<i>Clematis vitalba</i>	Traveller's-joy	) Alternate at 3m intervals
<i>Lonicera periclymenum</i>	Honeysuckle	)
<i>Solanum dulcamara</i>	Bittersweet	)
<i>Tamus communis</i>	Black bryony	)

Ideally plant in late autumn, after mid-November, although anytime between October and March is appropriate if the ground is not frozen. Plant 60-125mm high whips in trenches (300mm depth x 600mm width) in two lines 300mm apart to form a staggered, double row. Whips in each line should be 450mm apart, giving a total of five plants per running metre. Use a spiral guard to protect the whip from rabbits with a cane to support them. Back fill with a mixture of the topsoil excavated from the pit, mixed with organic matter.

Newly planted hedges are vulnerable to damage by wind, drought and severe weather for the first 2-3 years. Keep moist and mulch with a 50-75mm layer of composted bark to stop weed growth and retain moisture in the soil.




West Orchard, Bro Tathan,  
Dormouse Surveys

Plan 1 - Dormouse Survey Results

DCE 847 NTS Nov 2022



Key

-  Site Boundary
-  Dormouse Tubes
-  Dormouse Nest