

DAVID CLEMENTS ECOLOGY LTD

**LAND AT PENTRE MEYRICK, Nr COWBRIDGE
VALE OF GLAMORGAN**

ECOLOGICAL ASSESSMENT

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SUMMARY

This report refers to a small portion of an arable field at Pentre Meyrick, near Cowbridge in the Vale of Glamorgan, South Wales. The site is situated in a rural location in the district of Pentre Meyrick, to the west of the town of Cowbridge. The site comprises the southern portion of a large field which has been retained as a natural edge to the arable crop area. There are no buildings on the site. The site as a whole is mostly surrounded by open fields, with a small development of less than a dozen houses to the immediate south. A single-lane track runs along the southern boundary and leads into the small residential area, and the B4268 runs along the eastern side of the site. The site is surrounded by open fields and small areas of deciduous woodland. The site is proposed for development to provide affordable housing, which will likely require the development of the whole site.

The site does not contain or lie adjacent to any designated sites of nature conservation value. The nearest such site is the Pentre Meyrick Wood SINC, a non-statutory Wildlife Site which lies approximately 100m to the south.

The habitats of the site are considered to be of Local value for wildlife. The habitats do not meet the criteria for consideration as a potential SINC and do not qualify as 'Priority Habitats' of either the UK or Welsh BAP. However, the ruderal margin and hedge boundary is likely to be used by birds as a foraging, nesting and roosting resource, and common reptiles may additionally use them for sheltering and as commuting corridors. The arable crop habitat of the site is considered to be of no greater than Local value for wildlife, and is probably fairly negligible in value. It is likely to be used by common fauna such as small mammals for feeding and shelter, however, and may also be used by birds that prey on small mammals such as owls and day-flying raptors etc. It is highly unlikely that the site has any significance for farmland waders such as lapwing.

At present, there are no details of the proposed development of the site for affordable housing. It may be assumed that the proposed development will entail the loss of all, or nearly all, of the open habitats currently present within the site. It is understood, however, that the existing boundary hedges and trees will not be affected. Presumably there will be some landscape planting within the developed site, but details of this are also not available at the time of writing. The habitats of the site are considered to be of Local value for wildlife, and therefore there should be comparatively few adverse impacts arising as a result of the proposed development, and the significance of these should be confined to the local context.

No mitigation measures are considered necessary on this site. However, it is recommended that opportunities for potential enhancement are taken where possible. The proposed development could potentially have adverse impacts in varying degrees on certain protected species, however, particularly nesting birds and common reptiles, and precautionary measures with respect to these would therefore be required. Notwithstanding the above, however, it is concluded on the basis of the present survey that the proposed development of this site would not entail any significant loss of wildlife features, and therefore that the proposed development is not significantly constrained by biodiversity and nature conservation considerations.

Appropriate precautionary and enhancement measures are recommended.

1.0 INTRODUCTION

- 1.1 This report has been prepared by David Clements Ecology Ltd (DCE) on behalf of the Hendre Group, and refers to a small portion of an arable field at Pentre Meyrick, near Cowbridge in the Vale of Glamorgan, South Wales. The site location and context is shown at Plan 1.
- 1.2 The site is situated in a rural location in the district of Pentre Meyrick, to the west of the town of Cowbridge. The site comprises the southern portion of a large field which has been retained as a natural edge to the arable crop area. There are no buildings on the site.
- 1.3 The site as a whole is mostly surrounded by open fields, with a small development of less than a dozen houses to the immediate south. A single-lane track runs along the southern boundary and leads into the small residential area, and the B4268 runs along the eastern side of the site. The site is surrounded by open fields and small areas of deciduous woodland.
- 1.4 The site is proposed for development to provide affordable housing, which will likely require the development of the whole site.
- 1.5 The remainder of this report sets out the results of an ecological survey and assessment of the site. It also assesses the likely impact of any proposed development, and makes recommendations regarding the mitigation of any potentially adverse biodiversity impacts.

1.6 Designated Sites of Biodiversity Interest

Statutory Sites

- 1.6.1 The site does not contain or lie adjacent to any statutory sites of nature conservation interest, such as Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs), Local Nature Reserves (LNRs) etc. There are no such sites within 2km of the site.

Non-statutory Sites

- 1.6.2 The site does not contain or lie immediately adjacent to any non-statutory sites of nature conservation interest, such as Sites of Importance for Nature Conservation (SINCs), but the Pentre Merick SINC (No. 98) which is separated from the site by the small housing development and the line of the A48, lies about 100m to the south.
- 1.6.3 SINCs are one of a class of non-statutory nature conservation designations which are recognised throughout the UK under a wide range of titles, and which are collectively referred to as 'Wildlife Sites'. Wildlife Sites are so-called 'third tier' sites, generally ranked below sites which are of international or national biodiversity significance, but which are considered to have substantive nature conservation value in the sub-national (ie regional or district) context. They are usually designated at the county or county

borough level by the relevant local planning authority, and are recognised as a planning constraint in the relevant statutory development plan. The framework for the identification and designation of 'Wildlife Sites' is set out in various Government documents, and is referred to in *Planning Policy Wales* (2002) and *Technical Advice Note (Wales) 5: Nature Conservation & Planning* (2009).

2.0 APPROACH AND METHODS

2.1 Survey Methodology

- 2.1.1 The site was visited on 14 August 2012 in dry and warm weather conditions, and was subject to an Extended Phase 1 survey as recommended by the Institute of Environmental Assessment (IEA 1995). This was based on the Phase 1 vegetation classification methodology developed by the former Nature Conservancy Council (NCC 1990), a nationally-accepted and standard method for the rapid survey and appraisal of ecological habitats which is based primarily on the recording of vegetation and its classification into defined habitat categories. Dominant and conspicuous flora species were recorded and 'target notes' were prepared for any features of particular interest.
- 2.1.2 The methodology also requires the recording of conspicuous fauna species such as birds, herptiles (ie amphibians and reptiles), mammals and invertebrates such as butterflies and dragonflies, paying particular attention to the presence (or possible presence) of any rare or protected species.
- 2.1.3 Where appropriate, the habitats of the site were also characterised against the descriptions provided by the National Vegetation Classification (NVC) as set out by Rodwell (1991 *et seq*).

2.2 Survey Constraints

- 2.2.1 The survey was carried out at the middle of August and there were no significant seasonal limitations.

2.3 Data Trawl

- 2.3.1 In addition to the original survey, a data trawl was carried out in order to obtain access to any existing information about the site which may be held by nature conservation bodies in the region. The main body contacted was the South-East Wales Biological Records Centre (SEWBRc), which is the main repository for biodiversity and wildlife records in the south-east Wales region.
- 2.3.2 A small number of species records were returned by the local records centre search, with none recorded from the site itself. Polecat has been recorded along the A48 within 500m of the site on several occasions in recent years, and large flocks of golden plover and northern lapwing have been recorded on the far side of the SINC to the south, as was a re-occurring barn owl. Other records within 1km of the site include a barn owl to the north and to the north-west, a badger on the far side of a small village to the east, and a polecat to the south-east.

3.0 SURVEY RESULTS

3.1 Habitats & Vegetation

3.1.1 The results of the habitats and vegetation survey are shown on Plan 2 of this report, and are described briefly below. Lists of the plant species recorded are given at Appendix 1, and representative photographs are given at the end of this report.

Notable Plant Species

3.1.2 No nationally or regionally rare or scarce species were recorded.

Notable Habitats

3.1.3 None of the habitats within the site qualify as Priority Habitats of the UK Biodiversity Action Plan (UK BAP: BRIG 2007) or its Welsh equivalent (WBP 2007).

Hedges and Boundaries

3.1.4 There is no work proposed affecting the trees and hedgerow that run alongside the site boundaries, but they were included in the ecological survey by request of the client due to their very close proximity to the site.

3.1.5 The southern boundary comprises a waist-high wire-strand fence that has been partially colonised by bramble (*Rubus fruticosus* agg) with hedge bindweed (*Calystegia sepium*) and great willowherb (*Epilobium hirsutum*), and with tall false oat-grass (*Arrhenatherum elatius*) growing through in places.

3.1.6 The eastern site boundary runs along a dense hawthorn hedge (*Crataegus monogyna*) which rises to approximately two meters, with some bramble, hedge bindweed and occasional small young sycamore (*Acer pseudoplatanus*). A larger young sycamore forms the south-eastern corner with the southern boundary. The shady hedge base has a wide and dense layer of ruderal vegetation.

3.1.7 The western site boundary comprises tall ruderal vegetation growing at the base of a mainly hazel (*Corylus avellana*), blackthorn (*Prunus spinosa*) and hawthorn hedge-line that belongs to the neighbouring landowner.

3.1.8 There is no northern boundary, as this section of the site is planted with arable crop that opens out into the main field.

Ruderal Vegetation

3.1.9 There is a small amount of ruderal vegetation at the base of the southern boundary, comprising occasional common nettle (*Urtica dioica*), broad-leaved willowherb (*Epilobium montanum*) and hogweed (*Heracleum sphondylium*), together with Yorkshire fog (*Holcus lanatus*), red fescue (*Festuca rubra*) and common rye-grass (*Lolium perenne*).

- 3.1.10 The shady hedge base of the eastern boundary has a wide and dense layer of ruderal vegetation comprising bracken (*Pteridium aquilinum*), hogweed, common nettle, broad-leaved dock (*Rumex obtusifolius*), and occasional great willowherb, and greater birds-foot trefoil (*Lotus pedunculatus*) growing up through Yorkshire fog, red fescue, creeping bent (*Agrostis stolonifera*) and creeping soft grass (*Holcus mollis*) below.
- 3.1.11 The western boundary has a tall layer of ruderal vegetation between the neighbouring woody hedge and the shorter grassland species. Bramble, great willowherb and cleavers (*Galium aparine*) are growing through the hedge, with tall ruderal species including hogweed, creeping thistle (*Cirsium arvense*), common nettle, broad-leaved willowherb and broad-leaved dock to the front. Yorkshire fog, red fescue, rough meadow-grass (*Poa trivialis*) and sweet vernal-grass (*Anthoxanthum odoratum*) grow at the shaded base.

Semi-improved Neutral Grassland

- 3.1.12 A very small section of the site between the boundaries and the arable crop comprises species-poor semi-improved neutral grassland with patches of bare earth. The sparse sward comprises mainly Yorkshire fog and red fescue, with broad-leaved herbs such as creeping buttercup (*Ranunculus repens*) with some red clover (*Trifolium pratense*), clumps of broad-leaved willowherb, a small amount of scarlet pimpernel (*Anagallis arvensis*) and cut-leaved crane's-bill (*Geranium dissectum*), with a very small amount of common field speedwell (*Veronica persica*).
- 3.1.13 In the south-western corner of the site, additional species at the edge of the arable crop comprise large vegetative rosettes of dandelion (*Taraxacum officinalis* agg), clumps of redshank (*Polygonum persicaria*), a small area of prickly sow-thistle (*Sonchus asper*), some flowering broad-leaved dock and a single large specimen of hogweed.

3.2 Fauna

Protected Species

Bats

- 3.2.1 All species of bat and their roosting sites are protected under 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 2010 (the 'Habitats Regulations'). The roosting places used by bats are also protected against unauthorised disturbance or obstruction under the amended Wildlife & Countryside Act 1981. Several bats are listed as 'Priority Species' for conservation in the UK Biodiversity Action Plan (BRIG 2007) and its Welsh equivalent (WBP 2007).
- 3.2.2 There are no previously existing records of bats from the site itself, or within the locality of the site (SEWBReC data), and no evidence was found by the present survey. There are no buildings on site, and the trees adjacent to the site were considered to have no more than low-moderate potential for bats as they are all either young, or well-

maintained with no suitable crevices or dead wood etc. The eastern boundary hedge is not suitable for roosting bats.

- 3.2.3 It is possible that bats pass over the site when commuting, and may forage along the hedgelines etc.

Dormouse

- 3.2.4 Dormouse is a 'European Protected Species', and is therefore of similar status to bats (see above). It is afforded full statutory protection under both European and UK legislation, and this extends to the habitats which support it. It is also a 'Priority Species' of the UK Biodiversity Action Plan and its Welsh equivalent.

- 3.2.5 There are no suitable habitats within the site and no evidence of this species was found. Although there are a number of hazel trees on private land adjacent to the site, this small area of woodland is quite open with no dense under-storey, and is regularly disturbed.

Badger

- 3.2.6 Badgers are fully protected in the UK under the terms of the Protection of Badgers Act 1992. Protection applies both to the animal itself and to its nesting burrows (setts), and current interpretation of the Act also confers some protection to key foraging areas. Badgers remain comparatively widespread and common throughout the UK and are increasing in numbers in many areas, although they remain scarce and under threat in others. Whilst not rare nationally, it is subject to separate consideration in national planning policy.
- 3.2.7 Badgers were recorded at just over 1km from the site in 2010, however this was on the far side of a small village to the north-east of the site and near to suitable habitat for badger setts. There was no evidence of badger activity within the survey area, and no obvious signs of setts or diggings in the neighbouring sparse wooded area.

Other mammals

- 3.2.8 No parts of the site were assessed as being likely to be used by any other protected species such as otter or water vole etc, and no evidence of any of these species was found during this survey.
- 3.2.9 Polecat, a local species, has been recorded in the immediate vicinity of the site and may also occur within habitats adjacent to the site. As the site opens onto an arable crop field, it is very likely that common small mammals such as mice, shrews and voles are present, as well as casual visitors such as rabbit, hedgehog, fox etc.

Birds

- 3.2.10 Nearly all species of bird are protected against killing or injury as individuals under UK legislation, and this protection extends to their nests, eggs and young. A number of especially rare species are subject to enhanced protection under UK law by virtue of their listing on Schedule 1 of the Wildlife & Countryside Act 1981, and may not be disturbed whilst nesting.

- 3.2.11 It is likely that low numbers of common tree and shrub-nesting birds use the site for nesting, utilising the small trees and the hawthorn hedge around the boundary of the site.
- 3.2.12 A number of house martins were seen feeding over the site, and utilising the telephone wire along the southern boundary as a communal perch (as many as a dozen at any one time). It is highly likely that they nest in the small housing development to the south of the site. A blue tit was seen perching and possibly feeding in one of the small silver birch trees that line the track along the south edge of the site. Red kite has been noted flying over the site in the past (*pers comm*) and a buzzard was seen and heard overhead during the survey.

Reptiles

- 3.2.13 Four native reptile species occur in South Wales, comprising common lizard, slow-worm, adder and grass snake. These four species are all afforded so-called 'partial protection' under the amended Wildlife & Countryside Act 1981, which prohibits the deliberate killing or injury of individuals. However, there is no direct protection extended to the habitats which support these species. All four common reptile species are listed as Priority Species in the UK BAP and its Welsh equivalent.
- 3.2.14 Common reptile species are difficult to detect in the field without recourse to targeted Phase 2 survey methods. Reliance was therefore placed on the subjective assessment of the habitats of the site with respect to their potential as dispersal, foraging and hibernating grounds for common reptiles, based on previous experience and on published information.
- 3.2.15 There are no records of reptiles from the site, although the neighbouring landowner reported seeing an adder on his land in 2011, within a few meters of the site (*pers comms*). The site does not support optimal habitat for these reptiles but species such as slow-worm may use the hedge-bases and boundary vegetation as a corridor to move along the field edges.

Amphibians

- 3.2.16 Five native amphibian species occur in South Wales, comprising common frog, common toad, smooth newt, palmate newt and great crested newt. The latter species is nationally rare and declining, and is afforded full protection under both UK and European legislation, which also extends to the habitats which support it. The other four species are not afforded any direct statutory protection, other than with respect to trade. Common toad and great crested newt are listed as 'Priority Species' in the UK BAP and its Welsh equivalent.
- 3.2.17 There are no records of amphibians in the local area and there are no suitable breeding habitats for amphibians within the site, although there are two ponds known to support frogs and toads in the near vicinity. It is possible that common species such as common frog, common toad and palmate newt might shelter and forage in the taller ruderal vegetation and hedgebanks, at least on occasion. The rare and protected great crested

newt is not recorded from the site vicinity, however, and would not be expected to occur.

Invertebrates

- 3.2.18 Upwards of 27,000 species of invertebrates are recorded in Britain, occurring in every available habitat. About 40 species are afforded full statutory protection in the UK under either European or British legislation.
- 3.2.19 There are no invertebrate records from the site or in the immediate vicinity to date. The site is assessed as being likely to support a small range of common and ubiquitous invertebrate species, and those noted during the survey were: large white butterfly (*Pieris brassicae*), small white butterfly (*Pieris rapae*), meadow brown butterfly (*Maniola jurtina*), the dronefly *Eristalis pertinax* and various common spiders and grasshoppers etc.

4.0 ECOLOGICAL EVALUATION

4.1 There is currently no nationally accepted system for the categorising of sites or features of biodiversity significance below the level of national value, criteria for which are set out by the former Nature Conservancy Council (1989, as amended). However, guidance for the identification of non-statutory sites of county significance (ie SINC's) is available in this instance (WBP 2008).

4.2 For the purposes of this study the habitats and features of the site have therefore been provisionally evaluated and graded in accordance with the categories set out in Appendix 2. The site evaluation is shown at Plan 3.

International, National, County, District and High Local Value

4.3 No parts of the site are considered to fall into any of these categories.

Local Value

4.4 The habitats of the site are considered to be of Local value for wildlife. The habitats do not meet the criteria for consideration as a potential SINC's and do not qualify as 'Priority Habitats' of either the UK or Welsh BAP. However, the ruderal margin and hedge boundary is likely to be used by birds as a foraging, nesting and roosting resource, and common reptiles may additionally use them for sheltering and as commuting corridors.

Local/Negligible

4.5 The arable crop habitat of the site is considered to be of no greater than Local value for wildlife, and is probably fairly negligible in value. It is likely to be used by common fauna such as small mammals for feeding and shelter, however, and may also be used by birds that prey on small mammals such as owls and day-flying raptors etc. It is highly unlikely that the site has any significance for farmland waders such as lapwing.

5.0 ASSESSMENT OF DEVELOPMENT IMPACTS

- 5.1 At present, there are no details of the proposed development of the site for affordable housing. It may be assumed that the proposed development will entail the loss of all, or nearly all, of the open habitats currently present within the site. It is understood, however, that the existing boundary hedges and trees will not be affected. Presumably there will be some landscape planting within the developed site, but details of this are also not available at the time of writing.
- 5.2 The habitats of the site are considered to be of Local value for wildlife, and therefore there should be comparatively few adverse impacts arising as a result of the proposed development, and the significance of these should be confined to the local context.
- 5.3 No mitigation measures are considered necessary on this site. However, it is recommended that opportunities for potential enhancement are taken where possible. Recommendations with respect to possible enhancement measures are set out below.
- 5.4 The proposed development could potentially have adverse impacts in varying degrees on certain protected species, particularly nesting birds and common reptiles. Precautionary measures with respect to these would therefore be required.
- 5.5 Notwithstanding the above, however, it is concluded on the basis of the present survey that that the proposed development of this site would not entail any significant loss of wildlife features, and therefore that the proposed development is not significantly constrained by biodiversity and nature conservation considerations.

6.0 RECOMMENDATIONS

6.1 Key Recommendations

6.1.1 The following are mandatory requirements under current legislation:

1. Clearance and construction must not cause disturbance or harm to any birds which are nesting in the affected habitats at the time. In the unlikely event that any nesting birds are discovered immediately prior to or during works, all work in the immediate area should cease immediately and appropriate expert advice sought.
2. Clearance and construction must be preceded by appropriate and adequate measures to ensure that no common reptiles are killed or injured.

6.1.2 In (1) above, the ‘immediate area’ should include any habitats for an area of at least 5m radius around the find-site. If necessary, the affected area should be clearly demarcated on the ground (eg by means of striped bunting) and made off-limits to all site personnel until inspected by an appointed expert. Appropriate measures to rectify the situation in accordance with statutory obligations and responsibilities will be determined at the time by the appointed expert, and may include consultations with the statutory agencies etc.

6.1.3 Any disruptive works within 5 meters of the eastern boundary hedge should avoid the main bird-nesting season, which runs approximately from March to August inclusive. Alternatively, any works which must necessarily be carried out during this period should be preceded by a survey to ensure that no nesting birds are present. This restriction also applies to any other habitats which are found to support nesting birds, including any ground-nesting species.

6.1.4 A precautionary approach towards common reptiles should concentrate primarily on minimising the potential for causing the death and injury of individuals during site clearance and building operations, which is a statutory requirement. However, the probability of encountering reptiles on this site is assessed as low and there are no records of reptiles from the site itself.

6.1.5 Mitigation for common reptiles should concentrate on minimising the potential for causing the death and injury of individuals during site clearance and building operations, primarily through the staged clearance of standing vegetation by means of strimming with hand-operated machines, or through the use of herbicides. Strimming from the centre of the site outwards towards the edges would be beneficial, with cutting initially to 150mm, followed by a second cut within 24 hours to ground level, and with all arisings being collected and removed from the site. This work should be carried out outside of the hibernation period (ie not between November to February inclusive) and the site maintained in a bare condition until the start of construction operations.

6.2 Additional Recommendations

- There are no works proposed affecting the eastern boundary hedge, and ideally it should be retained in its present condition. If the development of the site

necessitates the removal of this hedge, however, then it should either be translocated to a new location elsewhere around the site periphery, or a new hedge of equivalent length and sufficient compensatory value should be replanted on the site using native species which are indigenous to the locality.

- Consideration should be given to the erection of bird boxes and bat boxes in inaccessible, high locations around the site periphery, either in trees or on the sides of new buildings. Bat boxes and bird boxes should be at least 4m (preferably 5m) above ground level and sited in such a manner that predators such as cats cannot reach them (cats are a major predator of bats, most often taking them as they crawl or fly from roost access points). The entrances to bat boxes should not be illuminated at night.
- Bird and bat boxes should ideally be of 'woodcrete' construction (such as those manufactured by Schwegler Ltd), since these are much more robust and longer-lived than traditional wooden boxes and require minimal after-maintenance. Examples of suitable boxes are shown at Appendix 3.
- The landscaping of the development should, if possible, include areas of native grassland and plantings of native trees and shrubs which are indigenous to the locality, in preference to sown amenity swards and plantations of exotic species. Planting stock should be of local, or at least UK, provenance. Suitable species are listed at Appendix 4.

7.0 REFERENCES

Bat Conservation Trust (BCT 2012) *Bat Surveys – Good Practice Guidelines*, 2nd ed, Bat Conservation Trust, London.

Biodiversity Reporting & Information Group (BRIG 2007) *Report on the Habitats & Species Review: A Report to the UK Biodiversity Partnership*. Joint Nature Conservation Committee, Peterborough.

Institute of Environmental Assessment (IEA 1995) *Guidelines for Baseline Ecological Assessment*. IEA Lincoln.

Nature Conservancy Council (NCC 1989) *Guidelines for the Selection of Biological SSSIs*. NCC Peterborough.

Nature Conservancy Council (NCC 1990) *Handbook for Phase 1 Habitat Survey: a Technique for Environmental Audit*. NCC Peterborough.

Rodwell, J (Ed) (1991-2000) *British Plant Communities*. Vols 1-5. Cambridge University Press.

Wales Biodiversity Partnership (WBP 2008) *Wildlife Sites Guidance Wales: A Guide to Develop Local Wildlife Systems in Wales*. Wales Biodiversity Partnership/Welsh Assembly Government.

Wales Biodiversity Partnership (WBP 2007) *List of Species & Habitats of Principal Importance for Conservation of Biological Diversity in Wales, (as amended)*. Wales Biodiversity Partnership/Welsh Assembly Government.

APPENDIX 1: SPECIES RECORDED ON SITE

All species recorded by DCE 2012, unless otherwise indicated:

Trees & Shrubs		W	NG	AG	CG	MG	
<i>Acer pseudoplatanus</i>	Sycamore						
<i>Crataegus monogyna</i>	Hawthorn						
<i>Rubus fruticosus</i> agg	Bramble						
Herbaceous Plants							
<i>Agrostis stolonifera</i>	Creeping bent- grass						
<i>Anagallis arvensis</i>	Scarlet pimpernel						
<i>Anthoxanthum odoratum</i>	Sweet vernal grass						
<i>Arrhenatherum elatius</i>	False oat-grass						
<i>Calystegia sepium</i>	Hedge bindweed						
<i>Cirsium vulgare</i>	Spear thistle						
<i>Epilobium hirsutum</i>	Great willowherb						
<i>Epilobium montanum</i>	Broad-leaved willowherb						
<i>Festuca rubra</i>	Red fescue						
<i>Galium aparine</i>	Cleavers						
<i>Geranium dissectum</i>	Cut-leaved cranesbill						
<i>Heracleum sphondylium</i>	Hogweed						
<i>Holcus lanatus</i>	Yorkshire fog						
<i>Holcus mollis</i>	Creeping soft grass						
<i>Lolium perenne</i>	Perennial rye grass						
<i>Lotus pedunculatus</i>	Greater birds-foot trefoil					MG	
<i>Poa trivialis</i>	Rough meadow grass						
<i>Polygonum persicaria</i>	Redshank						
<i>Pteridium aquilinum</i>	Bracken						
<i>Ranunculus repens</i>	Creeping buttercup						
<i>Rumex obtusifolius</i>	Broad leaved dock						
<i>Sonchus asper</i>	Prickly sow thistle						
<i>Taraxacum officinalis</i> agg	Common dandelion						
<i>Trifolium pratense</i>	Red clover		NG				
<i>Urtica dioica</i>	Common nettle						
<i>Veronica persica</i>	Common field speedwell						
	Indicator species numbers	0	1	0	0	1	

Birds			
<i>Buteo buteo</i>	Buzzard	Common	F/O
<i>Cyanistes caeruleus</i>	Blue tit	Common	
<i>Delichon urbicum</i>	House martin	Common	

Invertebrates			
<i>Eristalis pertinax</i>	Hoverfly		
<i>Maniola jurtina</i>	Meadow brown butterfly	Common	
<i>Pieris brassicae</i>	Large white butterfly	Common	
<i>Pieris rapae</i>	Small white butterfly	Common	
Acrididae family	Grasshoppers	Common	
Arachnid family	Spiders	Common	

APPENDIX 2: DEFINITIONS OF SITE VALUE

International Value

Site carrying an internationally recognised designation such as Ramsar Site, World Heritage Site, Special Protection Area, Special Area of Conservation, Biosphere Reserve or Biogenetic Reserve, or:

Habitats: site supporting nationally significant areas of habitats of defined international community interest.

Species: site supporting nationally significant populations of species of defined international community interest.

National Value

Site meeting published Site of Special Scientific Interest (SSSI) designation criteria (NCC 1989), whether so designated or not.

Habitats: site supporting nationally significant areas of habitats of defined national rarity or interest.

Species: site supporting nationally significant populations or communities of UK Red Data Book, Nationally Notable or protected species (other than badger).

County Value

Site identified as a County Wildlife Site (CWS), Site of Importance to Nature Conservation (SINC) or similar at the county level (ie greater than district, borough or city level); meeting published CWS designation criteria (where these exist), but falling short of SSSI designation criteria, whether designated as a CWS or not.

Habitats: site supporting good examples of nationally threatened habitats, or extensive areas of habitats which are rare or unique in the county.

Species: site supporting large or strong populations or communities of nationally rare or protected species (other than badger), or of species which are rare in the county and uncommon nationally.

District Value

Sites failing to meet County Value criteria, but nevertheless supporting habitats, species or communities which appreciably enrich the ecological resource of the county, especially by virtue of their size or extent.

Habitats: sites supporting habitats uncommon in the county, small but unmodified fragments of nationally threatened habitats, or comprising extensive areas or systems of semi-natural habitats.

Species: sites supporting nationally rare species, or strong populations or communities of regionally uncommon species, which would not otherwise be present (ie they are critically dependant on the site characteristics).

Local Value

Habitats which fail to meet District Value criteria, but which appreciably enrich the ecological resource of the locality. This category can be further divided into:

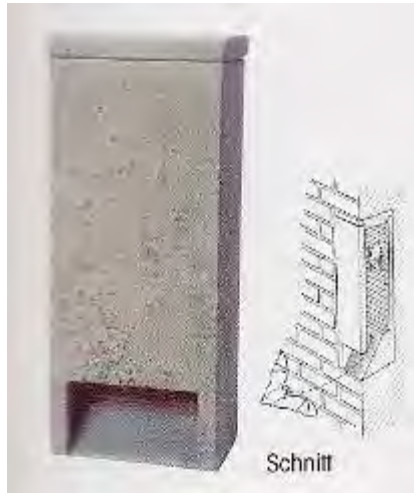
- **High Local Value**: just failing to meet District Value Criteria; supporting species which are notable or uncommon in the county; or species which are uncommon, local or habitat-restricted nationally, and which might not otherwise be present in the area.
- **Local Value**: sites which are of ecological value only in the context of their immediate surroundings. Rare or uncommon species may occur but are not restricted to the site or critically dependent upon it for their survival in the area.

Sites failing to meet any of the above can be considered as being of '**Negligible**' ecological value.

APPENDIX 3: BAT & BIRD BOXES EXAMPLES



Schwegler 2F bat box



Schwegler 1FR wall integrated bat box, can be rendered over, just leaving entrance



Schwegler 27 wall integrated bat box, can be rendered over



Schwegler 1FQ wall-mounted bat box



Schwegler 2FF wall-hanging bat box



Schwegler 1WI integral wintering bat box, can be rendered over



Schwegler 1B bird box



Schwegler 2H robin box

APPENDIX 4: SUITABLE NATIVE SPECIES FOR PLANTING

Trees & Shrubs

<i>Betula pendula</i>	Silver birch
<i>Betula pubescens</i>	Downy birch
<i>Corylus avellana</i>	Hazel
<i>Crataegus monogyna</i>	Common hawthorn
<i>Cytisus scoparius</i>	Broom
<i>Fraxinus excelsior</i>	Ash
<i>Ilex aquifolium</i>	Holly
<i>Prunus avium</i>	Wild cherry
<i>Prunus spinosa</i>	Blackthorn
<i>Quercus robur</i>	Pedunculate oak
<i>Salix caprea</i>	Goat willow
<i>Salix cinerea</i>	Grey willow
<i>Sorbus aucuparia</i>	Rowan
<i>Ulex europaeus</i>	Common gorse
<i>Viburnum opulus</i>	Guelder rose

Grassland Species

<i>Centaurea nigra</i>	Common knapweed
<i>Hypochaeris radicata</i>	Common cat's-ear
<i>Lathyrus pratensis</i>	Meadow vetchling
<i>Leontodon hispidus</i>	Rough hawkbit
<i>Leucanthemum vulgare</i>	Ox-eye daisy
<i>Lotus corniculatus</i>	Bird's-foot trefoil
<i>Medicago lupulina</i>	Black medick
<i>Pilosella officinalis</i>	Mouse-eared hawkweed
<i>Plantago lanceolata</i>	Ribwort plantain
<i>Primula veris</i>	Cow-slip
<i>Primula vulgaris</i>	Primrose
<i>Prunella vulgaris</i>	Self-heal
<i>Ranunculus acris</i>	Meadow buttercup
<i>Trifolium dubium</i>	Least trefoil
<i>Trifolium pratense</i>	Red clover
<i>Veronica chamaedrys</i>	Germander speedwell
<i>Vicia cracca</i>	Tufted vetch
<i>Vicia sativa</i>	Common vetch

REPRESENTATIVE PHOTOGRAPHS OF THE SITE: Aug 2012



Southern boundary (to left of photo)



Southern boundary (on site looking out)



Western boundary



Ruderal vegetation at base of western boundary



Eastern boundary hedge



Ruderal vegetation at base of eastern boundary



Semi-improved grassland between boundary & crop

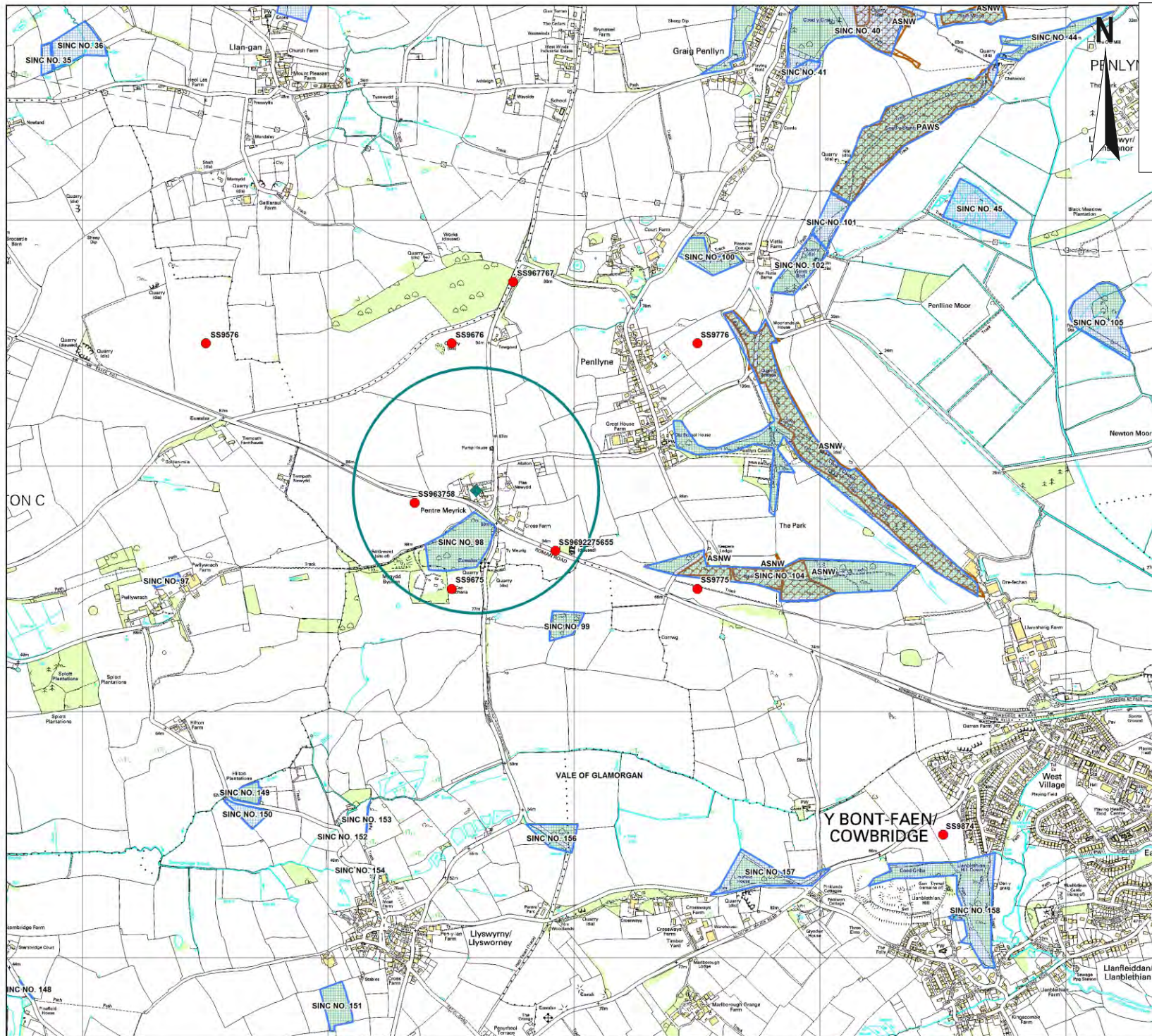


Northern boundary in line with end of trees

Land at Pentre Meyrick, Vale of Glamorgan

Plan 1: Site Location & Context

DCE 663 NTS Aug 2012



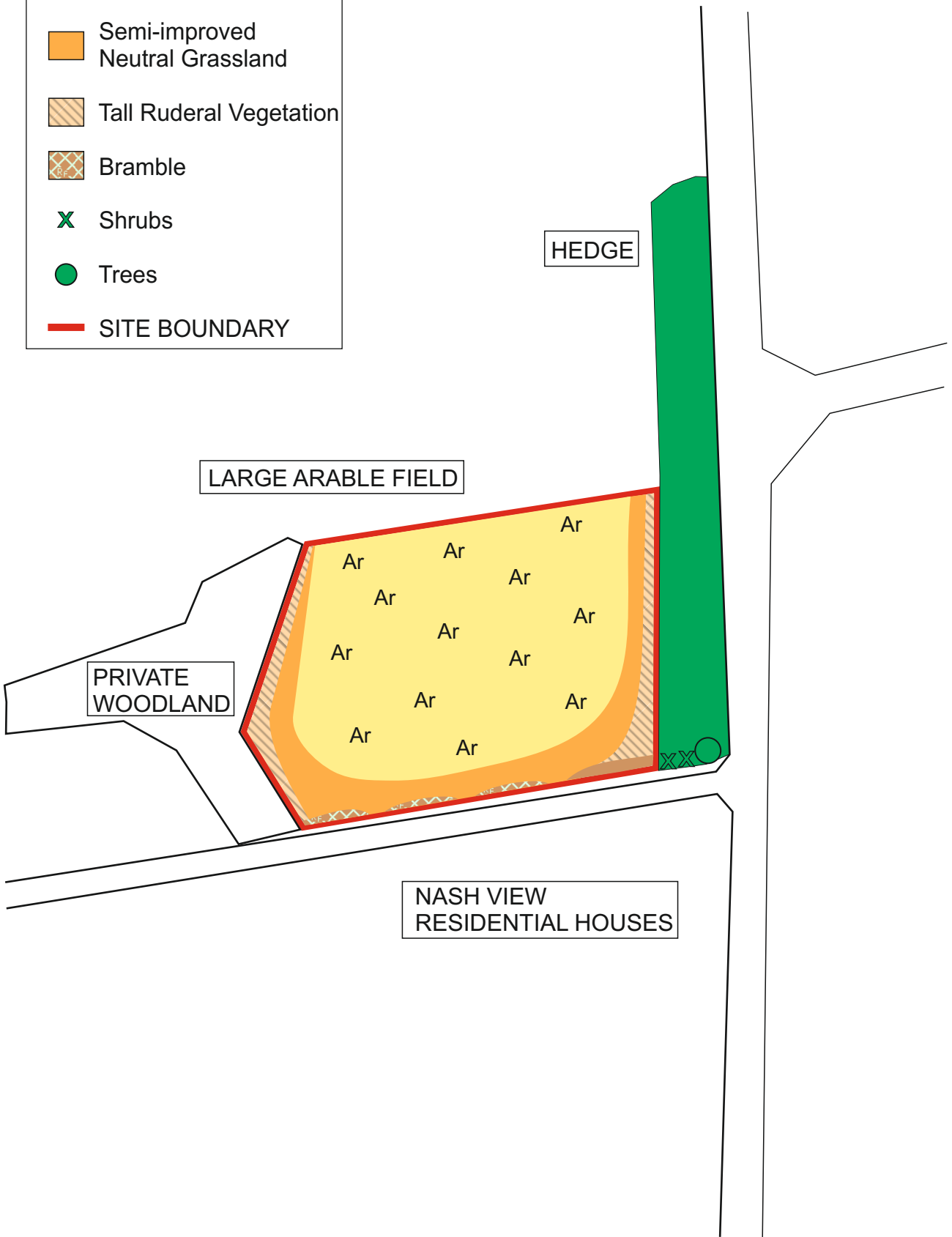
-  Centre of Search Area
-  500m Search Buffer
-  Priority & Protected Species
-  Site of Importance for Nature Conservation
-  Ancient Semi-Natural Woodland (ASNW) / Planted Ancient Woodland Site (PAWS)

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KEY

- Ar Arable Crop
- Semi-improved Neutral Grassland
- Tall Ruderal Vegetation
- Bramble
- X Shrubs
- Trees
- SITE BOUNDARY



**Land at Pentre Meyrick,
Vale of Glamorgan**

Plan 2: Habitats and Vegetation

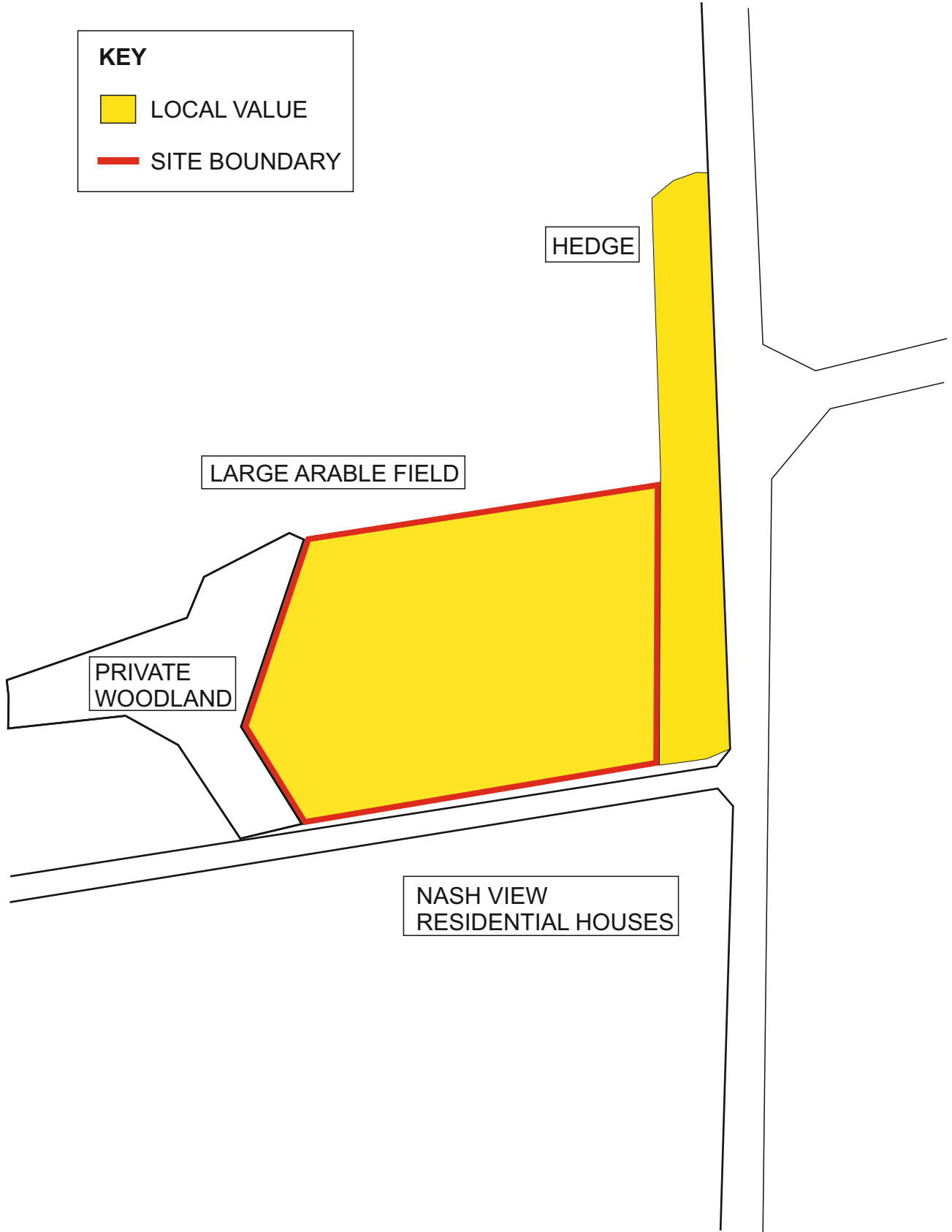
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Aug 2012

KEY

- LOCAL VALUE
- SITE BOUNDARY



**Land at Pentre Meyrick,
Vale of Glamorgan**

Plan 3: Ecological Evaluation

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