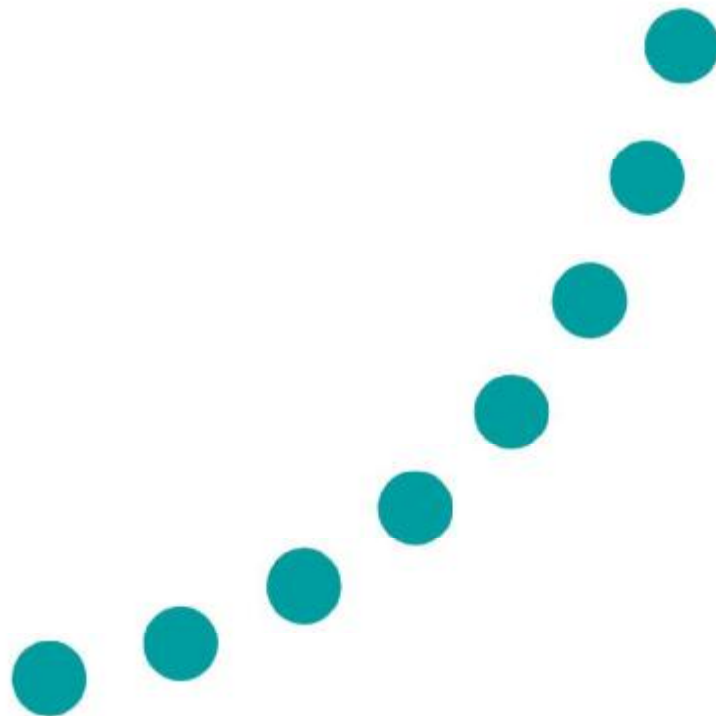


2079

TACP



**Rhose Point, Vale of Glamorgan**

**Ecological Statement – August 2012**

# TAYLOR WIMPEY

## RHOOSE POINT, VALE OF GLAMORGAN ECOLOGICAL STATEMENT

**AUGUST 2012**

**TACP  
10 PARK GROVE  
CARDIFF  
CF10 3BN**

Project Number: **2079**  
Project Status: **Final (2)**

Revision No.	Date of Revision	Checked by	Date	Approved by	Date
<b>0</b>	<b>23/08/12</b>	<b>SS</b>	<b>23/08/12</b>	<b>JW</b>	<b>23/08/12</b>
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**RHOOSE POINT, VALE OF GLAMORGAN  
ECOLOGICAL STATEMENT AUGUST 2012**

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**Appendix A Phase I Habitat Target Notes**

# RHOOSE POINT, VALE OF GLAMORGAN ECOLOGICAL STATEMENT AUGUST 2012

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## 1.0 *Introduction*

TACP were commissioned by Taylor Wimpey in August 2012 to undertake an Extended Phase I Habitat Survey of the development plot at Rhoose Point in the Vale of Glamorgan. This ecological statement has been produced following an up to date desktop survey and a site survey undertaken by TACP in August 2012.

This ecological statement was produced following a site survey on the 21<sup>st</sup> August 2012. The purpose of this survey was to determine the presence of any ecological features of concern/interest both on the site and in the immediate area where applicable. The report highlights any ecological feature which may have implications for future development works and recommends potential further survey work and mitigation requirements where applicable.

## 2.0 *Background*

The site is located on the South Wales coast within residential development at Rhoose Point in the Vale of Glamorgan (refer to Figure 1.0) and consists of a single plot covering approximately 2.7ha of ephemeral/short perennial and grassland vegetation with areas of bare ground. Residential developments dominate to the immediate south, east and west with open fields and Cardiff International Airport dominating to the north. Beyond these developments open countryside and agricultural areas dominate with some areas of broad-leaved woodland.

The site is not located within a designated area although there are a number of designated areas within 5km of the site, as listed below:

- Porthkerry Country Park, 1.24km to the east
- East Aberthaw Coast Site of Special Scientific Interest (SSSI), 1.63km to the west
- Cliff Wood-Golden Stairs SSSI and Local Nature Reserve (LNR), 1.75km to the north east
- Coedydd y Barri/ Barry Woodland SSSI, 2.35km to the north
- Barry Island SSSI, 3.74km to the east
- Cwm Talwy Woodlands LNR, 4.08km to the north east
- Glamorgan Heritage Coast, 4.65km to the west
- Nant Whitton Woodlands SSSI, 4.85km to the north

There are three locally designated Sites of Interest for Nature Conservation (SINC) located within 1km of the site, as listed below:

- Font-y-Gary Quarry (site number 351)
- Rhoose Quarry (site number 352)
- Un-named site (site number 355)

### 3.0 Desktop Study

A desk study was undertaken including a data search on the NBN (National Biodiversity Network) Gateway for species records within 10km of the site and in the wider area and a SEWBRc (South East Wales Biodiversity Records Centre) search within 1km of the site. These searches compiled data on all notable and protected species in the area. A review of the Countryside Council for Wales (CCW) Phase I Habitat Survey of Wales (1989) was also undertaken as part of this desktop study to provide a basis regarding which habitats may be found on the site and in the surrounding area and to give some indication of the quality of these habitats. These highlighted a number of species in the area of nature conservation importance. The relevant legislation concerning the species and habitats highlighted by the study are detailed below along with a brief description of the ecological requirements of each species.

**Bats** are European Protected species listed on Annex IV of the Habitats Directive 1992 which is transposed into UK law by the Conservation (Natural Habitats &c) Regulations 1994 or "Habitats Regulations" and consolidated within The Conservation of Habitats and Species Regulations 2010. Certain bat species such as Lesser Horseshoe Bats are also given greater levels of protection through European Law through being listed on Annex II of the Habitats Directive. Bats are also protected through Schedules 5 and 6 of the Wildlife and Countryside Act (WCA) 1981 (as amended). A number of species are listed as Species of Principal Importance for Conservation of Biological Diversity in Wales under Section 42 of the Natural Environment and Rural Communities (NERC) Act 2006. Certain of the species are also Priority Biodiversity Action Plan (BAP) Species on the UK BAP and are included within the Vale of Glamorgan Local BAP. Bats are generally nocturnal and will rest during the day in roosts. These can be found in a variety of places depending on the species concerned including trees and old or new buildings. All species found in the UK feed on insects and generally follow linear features in the landscape for navigation and feeding.

The **Water Vole** has been afforded full protected under the WCA 1981 (as amended) in Wales since August 2008. This species is also listed as a Species of Principal Importance for Conservation of Biological Diversity in Wales under Section 42 of NERC 2006 and is a UK BAP Priority Species and is listed on the Vale of Glamorgan Local BAP. Water Voles are associated with lowland aquatic habitats including areas of still or slow moving clean water with sloping earth banks and well vegetated margins allowing them to feed in and around the water's edge. Water Voles live in colonies along riverbanks in which they dig interconnecting burrows for nesting and food storage. These colonies are established from the connecting territories of breeding females. The breeding season ranges from March to October with females producing between two to five litters annually.

A number of **bird** species are likely to be found in the area given the habitats recorded previously although there were no records provided on the NBN Gateway database. All bird species including their eggs and nests are protected under the WCA 1981 to varying degrees. Further protection is afforded to those listed on Schedule 1 of this Act and through other legislation. Some species are also listed on the Vale of Glamorgan Local BAP. Generally birds require a mixture of habitats for breeding, feeding,

over-wintering etc making it possible that a number of bird species could be found utilising the site.

**Barn Owls** are listed under the EU Birds Directive and are given legal protection in the UK under the Conservation (Natural Habitats & c) Regulations 1994 and Schedules 1 and 9 of the Wildlife and Countryside Act 1981 (as amended). The Joint Nature Conservation Committee (JNCC) has developed Red and Amber lists for UK wild bird species that are of conservation concern on which the Barn Owl is listed under the Amber list. The species is being considered for listing on the Vale of Glamorgan Local BAP. Barn Owls are largely nocturnal hunters although the species can be seen flying during the day over rough grassland and farmland and along woodland edges. Barn Owls feed largely on mice and other small rodents but will also feed on small bats, birds and reptiles. The species nests in hollow trees or old abandoned buildings and lays four to six eggs in April or May. Once hatched the young remain in the nest for between two to three months.

All **amphibians** are protected under Schedule 5 of the WCA 1981 (as amended). This means that it is an offence to sell frogs, toads or newts collected in the wild without a licence. Common Toad is also listed as a Species of Principal Importance for Conservation of Biological Diversity in Wales under Section 42 of the NERC Act 2006, as a UK Biodiversity Action Plan (BAP) Priority Species. All of the amphibians in the UK are reliant on ponds for breeding and surrounding terrestrial habitats for feeding and shelter.

The **Great Crested Newt** is listed on Annex II and Annex IV of the Habitats Directive 1992 which is transposed into UK law by the Conservation (Natural Habitats &c) Regulations 1994 or "Habitats Regulations". This species is also listed in Schedule 5 of the WCA 1981, as amended by the Countryside and Rights of Way Act 2000. Great Crested Newts are listed as a UK BAP Priority Species and on the Vale of Glamorgan Local BAP and are also listed as a Species of Principal Importance for Conservation of Biological Diversity in Wales under Section 42 of NERC Act 2006.

There were records for **reptiles**, which are protected against killing, injuring and sale under U.K. legislation through their inclusion in Appendix III of the Bern Convention (1979), Schedule 5 of the Wildlife and Countryside Act (as amended) (1981) and the Natural Environment and Rural Communities Act (2006). Reptiles require dense vegetation for cover and foraging opportunities with some more open areas where they can bask safely and can be found in a variety of habitats including meadows, woodlands, urban and sub-urban habitats.

There were records for **invertebrate species**, especially for butterfly and moth species. A number of those recorded are nationally notable although this does not afford them any legal protection. A small number of these species are also listed as UK BAP Priority Species and Vale of Glamorgan Local BAP Species and as Species of Principal Importance for Conservation of Biological Diversity in Wales under Section 42 of the Natural Environment and Rural Communities Act 2006. In particular Ox-tongue Conch (*Cochylis molliculana*) and *Acleris logiana* both of which are notably rare species in the UK and Chalk Carpet (*Scotopteryx bipunctaria*), which is notably rare in Wales and list under Section 42 of the Natural Environment and Rural Communities Act 2006

Various **habitats** are afforded differing degrees of protection under both European and UK law. Additionally certain habitats are identified as being of importance for conservation through their inclusion as either Priority habitats on the UK BAP or of more local conservation value through their inclusion on the Vale of Glamorgan Local BAP.

Japanese Knotweed (*Fallopia japonica*) and Himalayan Balsam (*Impatiens glandulifera*) have been recorded in the surrounding area. These two species, along with a number of others, are all listed on Schedule 9 of the WCA 1981 (as amended) making it an offence if 'any person plants or otherwise causes to grow in the wild' such plants that are listed in this section of the Act. This effectively makes it illegal to deliberately or recklessly cause the spread of these species, which could easily occur through the moving of materials or equipment on site or in the immediate area. The presence and distribution of any species listed on Schedule 9 will be recorded and mapped.

#### 4.0 Survey Results

The following results are illustrated on Figure 2.0 and detailed in the Target Notes (TN) given in Appendix A.

The site is dominated by semi-improved neutral grassland and ephemeral/short perennial vegetation with areas of scrub along the northern boundary and to the centre of the site. A sparsely vegetated gravel track runs along the southern boundary of the site with a further area of sparsely vegetated bare ground noted to the western boundary of the site. A small area of poor semi-improved grassland was also noted to the south eastern corner of the site.

The semi-improved neutral grassland recorded to the western and eastern parts of the site are generally unmanaged with a relatively tall sward dominated by Cocksfoot (*Dactylis glomerata*) and Red Fescue (*Festuca rubra*) with notable areas of Red Valerian (*Centranthus ruber*), Common Birdsfoot Trefoil (*Lotus corniculatus*), Meadow Buttercup (*Ranunculus acris*) and Stinging Nettle (*Urtica dioica*). Cow Parsley (*Anthriscus sylvestris*), Yorkshire Fog (*Holcus lanatus*), Black Medick (*Medicago lupulina*), Smooth Meadow Grass (*Poa pratensis*) and White Clover (*Trifolium repens*) were also frequent within the sward.

The ephemeral/short perennial vegetation recorded along the southern boundary and to the centre and western part of the site is also largely unmanaged with a tall sward dominated by Spear Thistle (*Cirsium vulgare*) and Ragwort (*Senecio jacobaea*) with abundant Great Willowherb (*Epilobium hirsutum*), Common Birdsfoot Trefoil, Creeping Cinquefoil (*Potentilla reptans*), Bramble (*Rubus fruticosus agg*), Hedge Mustard (*Sisymbrium officinale*), Smooth Sow-thistle (*Sonchus oleraceus*) and Stinging Nettle. Cow Parsley, Red Valerian, Field Bindweed (*Convolvulus arvensis*), American Willowherb (*Epilobium ciliatum*), Red Fescue, Prickly Lettuce (*Lactuca serriola*), Black Medick, Meadow Buttercup and Dandelion (*Taraxacum officinale*) were also frequent within the sward.

The northern boundary of the site consists of Bramble dominated scrub along the fence line at the base of the adjacent railway embankment. Spear Thistle, Field Bindweed, Great Willowherb and Ragwort are also abundant within this

area. The railway embankment itself consists of dense scrub and scattered trees with Hawthorn (*Crataegus monogyna*), Blackthorn (*Prunus spinosa*) and Grey Willow (*Salix cinerea*). Additional Bramble dominated scrub was also recorded along a small raised embankment toward the centre of the site.

A notable area of dense Grey Willow dominated scrub was recorded to the centre of the site with abundant Spear Thistle and Bramble and frequent Field Bindweed. Wild Teasel (*Dipsacus fullonum*), American Willowherb, Great Willowherb, Ragwort and Stinging Nettle were also notable within the sward.

The gravel track along the southern boundary of the site and the area of bare ground to the western boundary have some scattered vegetation cover with Daisy (*Bellis perennis*), Cocksfoot, Common Birdsfoot Trefoil, Black Medick and Ribwort Plantain (*Plantago lanceolata*) most notable. Continuing encroachment from the surrounding ruderal and grassland vegetation is evident within these areas.

The small area of poor semi-improved grassland to the south eastern corner of the site is dominated by Perennial Rye Grass (*Lolium perenne*) with abundant Red Fescue and White Clover. Scarlet Pimpernel (*Anagallis arvensis*), Cocksfoot, Yorkshire Fog, Black Medick, Smooth Meadow Grass, Knotgrass (*Polygonum aviculare*), Meadow Buttercup, Ragwort, Dandelion and Stinging Nettle were also frequent within the sward.

Whilst on site additional observations were made regarding the presence or potential presence of other species on site with particular attention given to protected species and their habitats. There were no buildings or other structures on site therefore none that have bat roosting potential. It was noted however that there was a single deceased tree along the base of the railway embankment outside the site boundary that has bat roosting potential with dense Ivy cover across its trunk and remaining branches. It is also considered likely that there are a number of cracks and crevices within the tree structure that would provide additional potential roosting opportunities. It is considered that the site has notable potential for foraging bats given the level of invertebrate activity on site.

No evidence of Water Vole activity was found on site and it is considered unlikely that they would utilise the site due to a lack of suitable habitats both on site and in the immediate area.

There was notable bird activity noted whilst on site, especially within the scrub habitats along the northern boundary and to the centre of the site with Swift (*Apus apus*), Blackbird (*Turdus merula*), Feral Pigeon (*Columbus livia*), Magpie (*Pica pica*), Carrion Crow (*Corvus corone*) and Herring Gull (*Larus argentatus*) recorded. The tree and scrub areas on site are considered likely to be used by nesting birds during the breeding season with the habitats on site providing potential foraging habitats for a number of species. Given the height of the grassland and ruderal vegetation swards it is also considered possible that ground nesting species, such as Skylark (*Alauda arvensis*), may utilise these areas for breeding.

At present the site has limited potential for amphibians given the lack of suitable aquatic habitats, however it is noted that the site does have some potential given the mosaic of refugia and vegetation cover. It is considered that this potential is limited by the lack of connectivity to the surrounding area



given the residential developments to the south, east and west of the site and the railway embankment to the north. However it should be noted that there is a significant Great Crested Newt metapopulation within 1.5km of the site, which needs to be considered as part of future development works.

There is notable potential for reptiles given the mosaic of refugia, vegetation cover and basking sites recorded across much of the site and the connectivity provided by railway corridor and its associated vegetation cover and basking potential (refer to TACP Reptile Survey Report September 2012).

There was notable invertebrate activity recorded during the survey with numerous Lepidoptera, Arachnid and Hymenoptera species noted, including Meadow Brown (*Maniola jurtina*) butterfly and Five-spot Burnet (*Zygaena trifolii*) and Yellow Shell (*Camptogramma bilineata*) moths.

## 5.0 Assessment

The surveys have highlighted that the site has at least some ecological and nature conservation value which has been assessed using the Guidelines for Ecological Impact Assessment in the United Kingdom produced by IEEM 2006. These guidelines show that given the high likelihood for foraging bats with further potential for roosting bats, which are afforded full protection under EU and UK legislation, the site could be considered to have high to very high ecological and nature conservation value if there are high levels of bat activity on site. This equates to having national to international value with regard to bats depending on the type and scale of activity of species present. However if there are lower levels of bat activity the value of the site for bats can be reduced. Further surveys would be required to determine activity levels and thus the actual value of the site for bat populations in the area.

The site can also be considered to have national (Wales) value given the high potential for West European Hedgehog, Brown Hare and Polecat, all of which are UK BAP Priority Species and the potential for Badgers, which are protected under the Protection of Badgers Act 1992. The site can also be considered to have at least a regional if not national (Wales) value given the presence of Herring Gull, which is a Red List Species, and Swift, which is an Amber List Species, with further potential value for breeding birds generally. The former assessment depends on the population size of the species recorded which was outside the scope of these surveys.

The site can be considered to have national (Wales) value given the potential for reptiles and the lower potential for amphibians as both of these species groups are listed under Section 42 of the NERC Act 2006, which highlights their importance on a national scale. Although if Great Crested Newt are found on site this value would increase to high or very high, equating to having national to international value as this species is afforded full protection under EU and UK legislation.

The site can be considered to have national (Wales) value given the potential for Ox-tongue Conch (*Cochylis molliculana*), *Acleris logiana* and Chalk Carpet (*Scotopteryx bipunctaria*) and the potential for other invertebrate species as these species groups are listed as rare with the records for the first two species being the only ones in Wales and Chalk Carpet being rare in Wales and these records part of only ten in the region, which highlights their importance on a national scale.

None of the habitat areas recorded are legally protected or listed as UK BAP Priority Habitats. Open Mosaic Habitats on Previously Developed Land is also listed under Section 42 of the NERC Act 2006 and as a UK BAP Priority Habitat however the extent of grassland vegetation and the lack of un-vegetated loose bare substrate may limit the validity of this.

The surveys did not note the presence of any Schedule 9 species however Japanese Knotweed (*Fallopia japonica*) and Himalayan Balsam (*Impatiens glandulifera*) have been recorded in the wider area and this should be monitored as part of the proposed works. The surveys did highlight the presence of Ragwort on site which is a specified weed under the Weeds Act 1959, which requires the species to be controlled where its presence poses a risk to horses and other grazing animals or land used for the production of forage.

These features could be affected by development through both direct and indirect impacts on the habitats and species present, the extent of which is unclear at present. The loss of foraging habitat could have adverse impacts on local bat populations and could result in direct disturbance to these species and the loss of nesting habitat could impact on breeding bird populations and could result in direct disturbance to nesting birds. The loss of vegetation cover, refugia and basking sites could also have an impact on reptile populations on site and in the wider area and potentially on amphibian populations if present. The loss of vegetation could also have an impact on invertebrate populations on site and in the wider area. The construction phase of the works could also have direct and indirect impacts on bat, bird, reptile and potentially amphibian populations in the area.

## 6.0 Recommendations

It is recommended that if works are to affect the vegetation along the base of the railway embankment an internal inspection is undertaken by a suitably qualified and licenced ecologist of the potential bat roost tree noted at the base of this embankment. If bats are found during this inspection, then the construction work which could impact this area would need to be postponed until an appropriate licence has been obtained from WG. Provision of replacement roost sites should also be considered through the installation of appropriate bat boxes in suitable locations. It should be noted that this is unlikely to be an issue as the tree identified is outside the site boundary, although the installation of bat boxes would still benefit bat populations in the area.

Given the presence of bats in the wider area and the foraging potential of the site it is recommended that night work is avoided where possible, or where necessary that directional lighting is used to minimise any disturbance to foraging bats.

It is recommended that all vegetation clearance is undertaken outside of the breeding bird season (March to August inclusive). However, if the work is to be undertaken during the breeding bird season further survey of the tree and scrub areas to be removed will be required. If these surveys highlight the presence of breeding birds a ten metre buffer will be required around the nest location and work cannot continue in within this buffer until the young have fledged. It is also recommended that provision of replacement nesting habitat

is considered either as part of any landscaping or through the installation of bird boxes in suitable areas.

Given the proximity of the site to a known Great Crested Newt population and the potential of this and other amphibian species on site it is recommended that further surveys are undertaken. As there are no water-bodies on site these surveys would consist of the checking beneath refugia found on site by a suitably qualified and licenced ecologist. This can be incorporated in the reptiles surveys recommended below.

Given the potential for reptiles on site it is recommended that further surveys are undertaken according to the guidelines given in the Reptile Habitat Management Handbook (Natural England 2010). This would require the placement of artificial refugia, preferably 1.0m<sup>2</sup>, across the site in locations likely to be used by reptiles and left to 'bed in' for a minimum of two weeks. A minimum of seven visits by a suitably qualified ecologist will then be required to determine presence/absence of reptile populations on site with further visits necessary if translocation is required (refer to TACP Reptile Survey Report September 2012).

Given the records of notable invertebrate species, particularly Lepidoptera species, in the area and reports of such species being present on site it is recommended that specialist surveys are undertaken at the appropriate time of year. These surveys should be undertaken following best practice guidelines between May and August and should involve light trapping to determine whether the Lepidoptera species highlighted are present on site. It is also recommended that the habitats lost are mitigated for through appropriate replacement/landscape planting. This should include the use of locally sourced native species and the inclusion of wildflower areas. This will ensure that invertebrate populations in the area are not permanently affected by development of the site.

It is also recommended that given the presence of Ragwort on site it would be best practice to undertake some control of this species as a precaution, despite the lack of agricultural land in the area. Such control should be balanced against the presence of the Cinnabar Moth in the wider area, the caterpillars of which feeds primarily on Ragwort. Advice should be sought from the Local Authority regarding the precise level of control required.

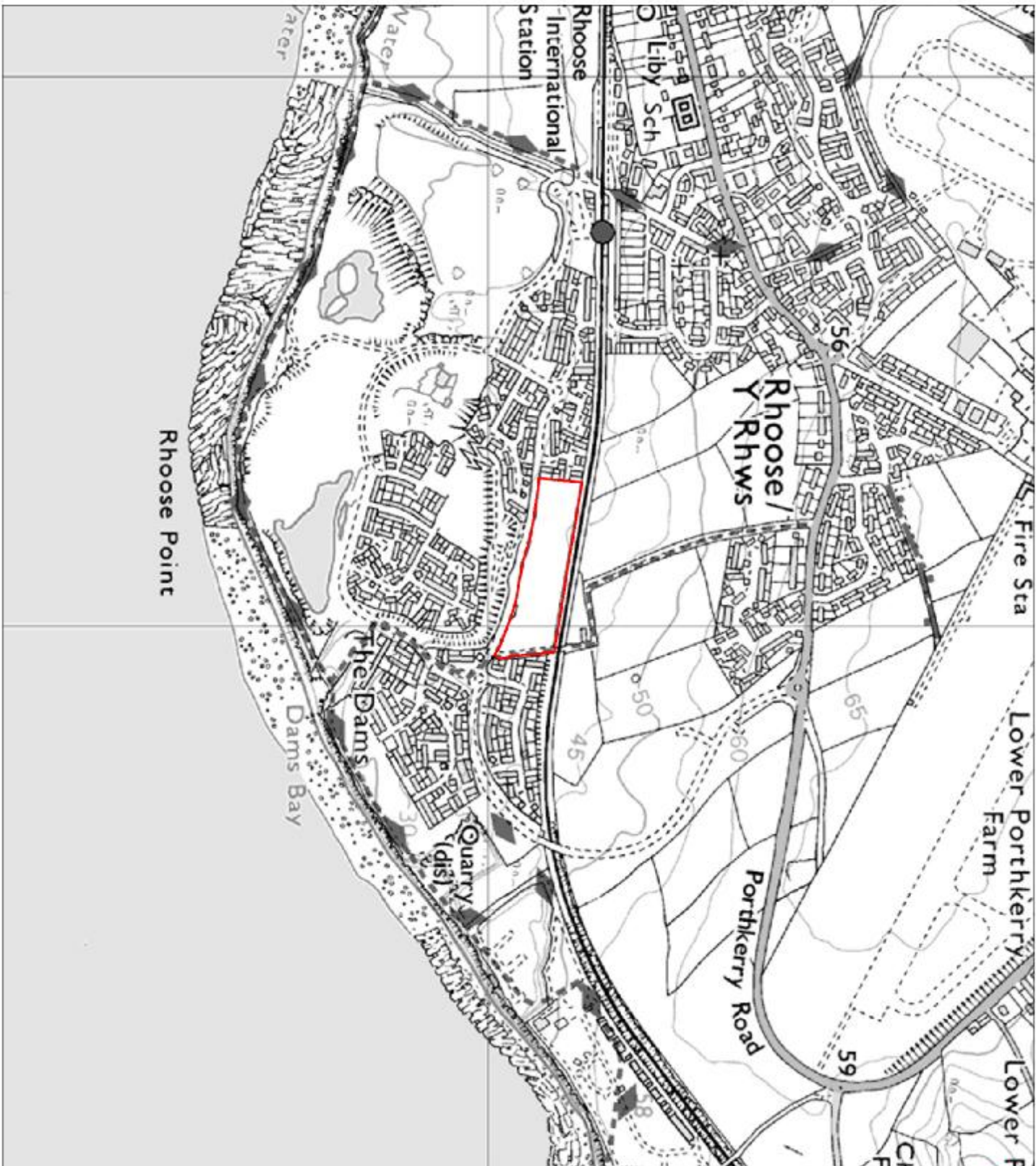
## 7.0 Summary

The surveys identified a number of habitats on site that have limited ecological and nature conservation value including semi-improved neutral grassland, ephemeral/short perennial vegetation and mature scrub. These provide potential habitats for bats, birds, reptiles, amphibians and invertebrates.

It is recommended that prior to commencement of any vegetation clearance works surveys are undertaken for the presence of breeding birds and for roosting bats if the tree identified along the northern boundary is to be affected. It is recommended that bat and bird boxes and appropriate landscape planting are included as part of any development works. It is also recommended that additional surveys are undertaken for amphibians, particularly Great Crested Newts, reptiles (refer to TACP Reptile Survey Report September 2012) and invertebrates prior to commencement of works.

8.0 *Figures*

- Figure 1.0** Site Location  
**Figure 2.0** Phase I Habitat Survey



Legend  
 Site Boundary



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**Rhoose Point**  
**Development Site Location**  
**August 2012**

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- Legend**
- Site Boundary
  - Dense Scrub
  - Semi-improved Neutral Grassland
  - Poor Semi-improved Grassland
  - Ephemeral/Short Perennial Vegetation
  - Building
  - Track
  - Bare Ground
  - Fence
  - Wall
  - x Scattered Scrub
  - Individual Broad-leaved Tree
  - Potential Bat Roost Tree

**NOTE 8**

  
 N

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**Rhoose Point**  
**Phase I Habitat Survey**  
**August 2012**

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## **Appendix A**

Rhose Point, Vale of Glamorgan

Phase I Habitat Survey Target Notes

The abundances provided are based on the DAFOR scale where D = Dominant, cD = Co-dominant, A = Abundant, F = Frequent, O = Occasional and R = Rare. Where species are locally more abundant than overall L is added to the scale above to denote local dominance, abundance, frequent etc.

**Target Note 1** – Dense scrub and broad-leaved tree vegetation along railway embankment, it was noted that one of the trees within this area has bat roosting potential, the tree is located to the base of the embankment (but still outside the site boundary) toward the eastern end of the site and has dense Ivy (*Hedera helix*) on its trunk and branches (the species could not be determined as the tree is deceased), it is also considered likely that there may be a number of cracks and crevices that would provide further roosting opportunities, notable bird activity at the time of survey with Swift (*Apus apus*), Blackbird (*Turdus merula*) and Feral Pigeon (*Columbus livia*) recorded using this vegetation, it is also considered that reptiles will utilise this area for cover, using the adjacent gravel of the rail tracks for basking

Species Name	Common Name
<i>Buddleia davidii</i>	Butterfly Bush
<i>Centranthus ruber</i>	Red Valerian
<i>Convolvulus arvensis</i>	Field Bindweed
<i>Crataegus monogyna</i>	Hawthorn
<i>Equisetum arvense</i>	Field Horsetail
<i>Hedera helix</i>	Ivy
<i>Prunus spinosa</i>	Blackthorn
<i>Rubus fruticosus agg</i>	Bramble
<i>Salix cinerea</i>	Grey Willow
<i>Sambucus nigra</i>	Elder

**Target Note 2** – Dense Bramble (*Rubus fruticosus agg*) scrub along the northern boundary of the site at the base of the railway embankment, Spear Thistle (*Cirsium arvense*), Field Bindweed (*Convolvulus arvensis*), Great Willowherb (*Epilobium hirsutum*) and Ragwort (*Senecio jacobaea*) also abundant within this area, some more open rubble areas noted with potential for use as both refugia and basking sites for reptiles and as refugia for amphibians in the area, although the potential of the latter is limited by the lack of or connectivity to aquatic habitats both on site and in the wider area

**Target Note 3** – Small area of dense Butterfly Bush (*Buddleia davidii*) along the western boundary of the site adjacent to neighbouring gardens, a number of Meadow Brown (*Maniola jurtina*) butterflies were noted feeding on these plants at the time of survey

**Target Note 4** – Semi-improved neutral grassland to the western and eastern parts of the site, largely unmanaged with a relatively tall sward dominated by Cocksfoot (*Dactylis glomerata*) and Red Fescue (*Festuca rubra*), some scattered rubble and bare ground provide suitable refugia and basking sites for reptiles on site with additional cover provided by the vegetation itself, potential for amphibians to utilise the rubble areas as refugia although this is limited as stated in Target Note 2, notable invertebrate activity recorded during the survey with numerous Lepidoptera, Arachnid and Hymenoptera noted

Species Name	Common Name	Abundance
<i>Achillea millefolium</i>	Yarrow	R/LF
<i>Anagallis arvensis</i>	Scarlet Pimpernel	R
<i>Anthoxanthum odoratum</i>	Sweet Vernal Grass	O/LF
<i>Anthriscus sylvestris</i>	Cow Parsley	F
<i>Arrhenatherum elatius</i>	False Oat Grass	R/LF



<b>Species Name</b>	<b>Common Name</b>	<b>Abundance</b>
<i>Bellis perennis</i>	Daisy	R
<i>Buddleia davidii</i>	Butterfly Bush	R
<i>Carex pendula</i>	Pendulous Sedge	R
<i>Centranthus ruber</i>	Red Valerian	O/LA
<i>Cirsium vulgare</i>	Spear Thistle	O/LF
<i>Conopodium majus</i>	Pignut	O
<i>Convolvulus arvensis</i>	Field Bindweed	O/LF
<i>Cotoneaster spp</i>	cotoneaster	R
<i>Crepis biennis</i>	Rough Hawksbeard	R
<i>Dactylis glomerata</i>	Cocksfoot	cD
<i>Dipsacus fullonum</i>	Wild Teasel	R
<i>Epilobium hirsutum</i>	Great Willowherb	O
<i>Festuca rubra</i>	Red Fescue	cD
<i>Geranium dissectum</i>	Cut-leaved Cranesbill	R
<i>Geranium pyrenaicum</i>	Hedgerow Cranesbill	R
<i>Hedera helix</i>	Ivy	R/LF
<i>Holcus lanatus</i>	Yorkshire Fog	F
<i>Hordeum murinum</i>	Wall Barley	R
<i>Hypericum perforatum</i>	Perforate St John's Wort	R
<i>Lactuca serriola</i>	Prickly Lettuce	R/LO
<i>Lathyrus pratensis</i>	Meadow Vetchling	R/LF
<i>Leucanthemum vulgare</i>	Ox-eye Daisy	O
<i>Linaria vulgaris</i>	Common Toadflax	R/LO
<i>Lolium perenne</i>	Perennial Rye Grass	R/LO
<i>Lotus corniculatus</i>	Common Birdsfoot Trefoil	R/LA
<i>Malva moschata</i>	Musk Mallow	R
<i>Medicago lupulina</i>	Black Medick	F
<i>Melilotus albus</i>	White Melilot	R
<i>Melilotus officinalis</i>	Ribbed Melilot	O
<i>Ononis repens</i>	Common Restharrow	R
<i>Phleum pratense</i>	Timothy	O
<i>Plantago major</i>	Greater Plantain	R/LO
<i>Pleurozium schreiberi</i>	Red-stemmed Feather Moss	O
<i>Poa annua</i>	Annual Meadow Grass	O
<i>Poa pratensis</i>	Smooth Meadow Grass	F
<i>Potentilla reptans</i>	Creeping Cinquefoil	O/LF
<i>Pulicaria dysenterica</i>	Common Fleabane	R/LO
<i>Ranunculus acris</i>	Meadow Buttercup	A
<i>Rosa arvensis</i>	Field Rose	R/LO
<i>Rubus fruticosus agg</i>	Bramble	O/LF
<i>Rumex crispus</i>	Curled Dock	O
<i>Sambucus nigra</i>	Elder	R
<i>Senecio jacobaea</i>	Ragwort	O/LF
<i>Senecio vulgaris</i>	Groundsel	R
<i>Sisymbrium officinale</i>	Hedge Mustard	R
<i>Sonchus oleraceus</i>	Smooth Sow-thistle	R
<i>Taraxacum officinale</i>	Dandelion	F
<i>Trifolium pratense</i>	Red Clover	O
<i>Trifolium repens</i>	White Clover	F
<i>Tussilago farfara</i>	Coltsfoot	R
<i>Urtica dioica</i>	Stinging Nettle	R/LA

Species Name	Common Name	Abundance
<i>Veronica persica</i>	Common Field Speedwell	R
<i>Vicia cracca</i>	Tufted Vetch	R/LF
<i>Vicia sativa</i>	Common Vetch	R

**Target Note 5** – Area of bare ground to the western end of the site, some scattered vegetation with further encroachment noted from the surrounding grassland habitat

Species Name	Common Name	Abundance
<i>Agrostis stolonifera</i>	Creeping Bent	R
<i>Anthoxanthum odoratum</i>	Sweet Vernal Grass	R
<i>Bellis perennis</i>	Daisy	O
<i>Conopodium majus</i>	Pignut	R
<i>Dactylis glomerata</i>	Cocksfoot	O
<i>Lactuca serriola</i>	Prickly Lettuce	R
<i>Leucanthemum vulgare</i>	Ox-eye Daisy	R
<i>Medicago lupulina</i>	Black Medick	O
<i>Plantago lanceolata</i>	Ribwort Plantain	O
<i>Pleurozium schreiberi</i>	Red-stemmed Feather Moss	R
<i>Sisymbrium officinale</i>	Hedge Mustard	R
<i>Taraxacum officinale</i>	Dandelion	R
<i>Trifolium repens</i>	White Clover	R

**Target Note 6** – Dense Bramble scrub along a small raised bank, potentially rubble, toward the centre of the site, Spear Thistle, Field Bindweed and Ragwort also abundant in this area

**Target Note 7** – Ephemeral/short perennial vegetation to the centre and western part of the site and along the southern boundary, largely unmanaged with a tall sward dominated by Spear Thistle and Ragwort with abundant Great Willowherb, Smooth Sow-thistle and frequent American Willowherb, some scattered rubble and bare ground provide suitable refugia and basking sites for reptiles on site with additional cover provided by the vegetation itself, potential for amphibians to utilise the rubble areas as refugia although this is limited as stated in Target Note 2, notable invertebrate activity recorded during the survey with numerous Lepidoptera, Arachnid and Hymenoptera noted, Magpie (*Pica pica*), Carrion Crow (*Corvus corone*) and Herring Gull (*Larus argentatus*) observed foraging within this area during the survey

Species Name	Common Name	Abundance
<i>Achillea millefolium</i>	Yarrow	R
<i>Anthoxanthum odoratum</i>	Sweet Vernal Grass	R
<i>Anthriscus sylvestris</i>	Cow Parsley	F
<i>Arrhenatherum elatius</i>	False Oat Grass	R/LF
<i>Bellis perennis</i>	Daisy	R
<i>Buddleia davidii</i>	Butterfly Bush	R
<i>Centranthus ruber</i>	Red Valerian	F
<i>Cirsium vulgare</i>	Spear Thistle	cD
<i>Conopodium majus</i>	Pignut	O
<i>Convolvulus arvensis</i>	Field Bindweed	F
<i>Cotoneaster spp</i>	cotoneaster	R
<i>Crepis biennis</i>	Rough Hawksbeard	O
<i>Dactylis glomerata</i>	Cocksfoot	O
<i>Dipsacus fullonum</i>	Wild Teasel	R
<i>Epilobium ciliatum</i>	American Willowherb	F
<i>Epilobium hirsutum</i>	Great Willowherb	A
<i>Festuca rubra</i>	Red Fescue	F

Species Name	Common Name	Abundance
<i>Geranium dissectum</i>	Cut-leaved Cranesbill	R
<i>Geranium pyrenaicum</i>	Hedgerow Cranesbill	R
<i>Hedera helix</i>	Ivy	R/LF
<i>Holcus lanatus</i>	Yorkshire Fog	O
<i>Hypericum perforatum</i>	Perforate St John's Wort	R
<i>Lactuca serriola</i>	Prickly Lettuce	F
<i>Lathyrus pratensis</i>	Meadow Vetchling	R/LF
<i>Leucanthemum vulgare</i>	Ox-eye Daisy	O
<i>Linaria vulgaris</i>	Common Toadflax	R/LO
<i>Lolium perenne</i>	Perennial Rye Grass	R
<i>Lotus corniculatus</i>	Common Birdsfoot Trefoil	R/LA
<i>Malva moschata</i>	Musk Mallow	R
<i>Medicago lupulina</i>	Black Medick	F
<i>Melilotus albus</i>	White Melilot	R
<i>Melilotus officinalis</i>	Ribbed Melilot	O
<i>Ononis repens</i>	Common Restharrow	R
<i>Phleum pratense</i>	Timothy	R
<i>Plantago major</i>	Greater Plantain	R/LO
<i>Pleurozium schreiberi</i>	Red-stemmed Feather Moss	O
<i>Poa annua</i>	Annual Meadow Grass	R
<i>Poa pratensis</i>	Smooth Meadow Grass	O
<i>Potentilla reptans</i>	Creeping Cinquefoil	F/LD
<i>Pulicaria dysenterica</i>	Common Fleabane	R/LO
<i>Ranunculus acris</i>	Meadow Buttercup	F
<i>Rosa arvensis</i>	Field Rose	R/LF
<i>Rubus fruticosus agg</i>	Bramble	F/LD
<i>Rumex crispus</i>	Curled Dock	O
<i>Sambucus nigra</i>	Elder	R
<i>Senecio jacobaea</i>	Ragwort	cD
<i>Senecio vulgaris</i>	Groundsel	R
<i>Sisymbrium officinale</i>	Hedge Mustard	O/LA
<i>Sonchus oleraceus</i>	Smooth Sow-thistle	A/LD
<i>Taraxacum officinale</i>	Dandelion	F
<i>Trifolium pratense</i>	Red Clover	R
<i>Trifolium repens</i>	White Clover	O/LF
<i>Tussilago farfara</i>	Coltsfoot	R/LF
<i>Urtica dioica</i>	Stinging Nettle	R/LA
<i>Veronica persica</i>	Common Field Speedwell	R
<i>Vicia cracca</i>	Tufted Vetch	R/LF
<i>Vicia sativa</i>	Common Vetch	R

**Target Note 8** – Dense scrub to the centre of the site dominated by Grey Willow (*Salix cinerea*) with abundant Spear Thistle and Bramble and frequent Field Bindweed, some bird activity noted during the survey with Blackbird seen and heard singing within this area

Species Name	Common Name	Abundance
<i>Cirsium vulgare</i>	Spear Thistle	A
<i>Convolvulus arvensis</i>	Field Bindweed	F
<i>Dipsacus fullonum</i>	Wild Teasel	O
<i>Epilobium ciliatum</i>	American Willowherb	O
<i>Epilobium hirsutum</i>	Great Willowherb	O
<i>Linaria vulgaris</i>	Common Toadflax	R

Species Name	Common Name	Abundance
<i>Melilotus officinalis</i>	Ribbed Melilot	R
<i>Rubus fruticosus agg</i>	Bramble	A
<i>Rumex crispus</i>	Curled Dock	R
<i>Salix cinerea</i>	Grey Willow	D
<i>Senecio jacobaea</i>	Ragwort	O
<i>Urtica dioica</i>	Stinging Nettle	O

**Target Note 9** – Gravel track along the southern boundary of the site, some scattered vegetation cover

Species Name	Common Name	Abundance
<i>Agrostis stolonifera</i>	Creeping Bent	R
<i>Anagallis arvensis</i>	Scarlet Pimpernel	R
<i>Anthoxanthum odoratum</i>	Sweet Vernal Grass	R
<i>Bellis perennis</i>	Daisy	O
<i>Conopodium majus</i>	Pignut	R
<i>Dactylis glomerata</i>	Cocksfoot	O
<i>Lactuca serriola</i>	Prickly Lettuce	R
<i>Leucanthemum vulgare</i>	Ox-eye Daisy	R
<i>Lotus corniculatus</i>	Common Birdsfoot Trefoil	O
<i>Medicago lupulina</i>	Black Medick	O
<i>Plantago lanceolata</i>	Ribwort Plantain	O
<i>Pleurozium schreiberi</i>	Red-stemmed Feather Moss	R
<i>Sisymbrium officinale</i>	Hedge Mustard	R
<i>Taraxacum officinale</i>	Dandelion	R
<i>Trifolium repens</i>	White Clover	R

**Target Note 10** – Small area of poor semi-improved grassland to the south eastern corner of the site, vegetation is notably different to that of the rest of the site with Perennial Rye Grass (*Lolium perenne*) dominating and abundant Red Fescue and White Clover (*Trifolium repens*), the presence of discarded grass cuttings and dominance of Perennial Rye Grass suggests that this area has suffered from localised nutrient enrichment

Species Name	Common Name	Abundance
<i>Agrostis stolonifera</i>	Creeping Bent	R
<i>Anagallis arvensis</i>	Scarlet Pimpernel	O/LA
<i>Dactylis glomerata</i>	Cocksfoot	O/LA
<i>Euphorbia peplus</i>	Petty Spurge	R
<i>Festuca rubra</i>	Red Fescue	A
<i>Holcus lanatus</i>	Yorkshire Fog	O/LA
<i>Lolium perenne</i>	Perennial Rye Grass	D
<i>Medicago lupulina</i>	Black Medick	F
<i>Plantago lanceolata</i>	Ribwort Plantain	R
<i>Poa pratensis</i>	Smooth Meadow Grass	F
<i>Polygonum aviculare</i>	Knotgrass	R/LF
<i>Ranunculus acris</i>	Meadow Buttercup	F
<i>Rubus fruticosus agg</i>	Bramble	O/LF
<i>Senecio jacobaea</i>	Ragwort	O/LA
<i>Sisymbrium officinale</i>	Hedge Mustard	F
<i>Taraxacum officinale</i>	Dandelion	O/LA
<i>Trifolium repens</i>	White Clover	A
<i>Urtica dioica</i>	Stinging Nettle	O/LA