



Former Ely Brickworks

Ely

Preliminary Ecological Appraisal

March 2015

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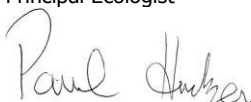
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Document Verification Table

Former Ely Brickworks, Ely Preliminary Ecological Appraisal				
Revision	Date	Prepared by	Checked by	Verified by
1.0	25/03/15	Susanna Lewis Graduate Ecologist 	Daniel Seaward Ecologist 	Paul Hudson MCIEM Principal Ecologist 

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Executive Summary

Site Location	Acer Ecology Ltd were commissioned by Matt Feakins of Ermaer Ltd to conduct a preliminary ecological appraisal of land at the former Ely brickworks, Woden park off Cwrt Yr Ala road, CF5 5QS (Ordnance Survey Grid Reference centred at: ST 14197 75455). The site is located within the boundary of Vale of Glamorgan County Borough Council.
Development Proposals	The site is proposed for the importation of inert waste. Clay cells will be created within the areas of bare ground into which the inert waste will be deposited. In addition, fencing will be erected around the boundaries of the site to stop workers walking in or negatively affecting these areas. Furthermore, no works are to be undertaken at night and access to the site will be used via existing tracks.
Statutory and non-statutory nature designations	<p>There are no statutory designated sites within 1km of the site proposed for development.</p> <p>Three non-statutory nature designations are located within 1km of the site proposed for development – Leckwith Woods SINC lies immediately to the east of the site boundary, Caerau Woods SINC lies 310m to the south-west of the site boundary, and West Hill Woods SINC lies 1km to the south-east of the site boundary. Protected and notable species such as badger, song thrush, lesser horseshoe bat and pipistrelle bat have been recorded in these areas.</p> <p>None of these sites are expected to be affected by the proposed development.</p>
Impacts to habitats of value	The site proposed for development is almost entirely comprised of bare ground with limited ecological value. Therefore, no negative impacts upon protected or priority species are envisaged to arise from the development.
Impacts to protected and notable species	<p>The proposed development could potentially have adverse impacts upon local badgers.</p> <p>It is therefore considered essential that appropriate mitigation measures are set in place to avoid or minimise impacts to these species (see Section 5.0).</p>
Invasive Non-native Species	None recorded.
Licensing Requirements	None required.
Recommendations	<p>Appropriate mitigation and compensatory measures are recommended including:</p> <p>Good construction practice for badger.</p> <p>Details of mitigation are outlined in detail in Section 5.0.</p>

1.0 Introduction

1.1 Brief

Acer Ecology Ltd were commissioned by Ermaer Ltd to conduct a preliminary ecological appraisal of land at the former Ely brickworks, Woden park off Cwrt Yr Ala road, CF5 5QS (Ordnance Survey Grid Reference centred at: ST 14197 75455). The site is located within the boundary of Vale of Glamorgan County Borough Council. The location of the site is shown on Plan 1.

1.2 Site description

The site proposed for development is an area measuring approximately 2 hectares located immediately south-east of the conurbation of Caerau, separated from the site by the A4232. The habitats on site consist almost entirely of bare ground, which has been in agricultural use for livestock grazing and has been recently rotovated, with small amounts of sparse vegetation remaining around the edges. The terrain slopes gently from south to north, with steep earth banks present along much of the southern boundary. The site is bordered by three discrete but interlinked areas of broadleaved woodland. To the north is an area of young to semi-mature planted broadleaved woodland. To the east lies Leckwith Wood Site of Importance for Nature Conservation (SINC), comprising Plymouth and Leckwith woods also designated as a mix of ancient semi-natural woodland (ASNW) and plantation ancient woodland site (PAWS). To the south, immediately adjacent to the site lies Caerau Woods, designated as an ASNW. To the west beyond the A4232 lies a second area Caerau Woods, designated as a SINC and ASNW.

1.3 Development proposals

The site is proposed for the importation of inert waste. Clay cells will be created within the areas of bare ground into which the inert waste will be deposited. In addition, fencing will be erected around the boundaries of the site to stop workers walking in or negatively affecting these areas. Furthermore, no works are to be undertaken at night and access to the site will be via existing tracks.

After consultation with the client, it is understood that a five year development plan is in place and once the current proposals are completed, the site will be levelled off and restored to its historic state as part of Caerau woods.

A planning application has been submitted to the Vale of Glamorgan County Borough Council (Planning reference: 2014/04787/SC1)¹.

¹ <http://vagonline.planning-register.co.uk/PlaRecord.aspx?AppNo=2014/01487/SC1>

1.4 **Scope of the study**

The study comprised the following:

- A desk study to identify existing information on statutory and non-statutory sites of nature conservation interest, and records of notable or protected habitats or species within the site and its environs;
- A Phase 1 Habitat Survey of the site, extended to search for evidence of, and potential for, protected fauna; and
- Identification of potential ecological constraints to the proposed works at the site and assessments of impacts including appropriate mitigation measures where necessary.

1.5 **Reporting**

This report aims to:

- Outline the methodology used during the survey;
- Present the results of the survey;
- Provide an ecological evaluation of on-site habitats, including an assessment of the potential for protected species;
- Provide an assessment of the potential impacts of the development proposals on ecological receptors identified through the desk and field study;
- Provide an assessment of the potential ecological constraints to the proposals; and
- Provide recommendations for further survey, avoidance, mitigation and enhancement where appropriate.

2.0 Methods

The survey was undertaken following standard methods as described in the Chartered Institute of Ecology and Environmental Management (CIEEM) Preliminary Ecological Appraisal 2012 guidelines and the Phase 1 Habitat Survey methodology (Joint Nature Conservation Committee, 2010). The methodology utilised for the survey work comprised a desk study, a habitat survey and a survey of protected and notable species.

2.1 Desk study

Protected sites, habitats and species

Information on statutory nature conservation designated sites and protected species was obtained from the following sources:

Source	Data	Radius of search
South East Wales Biological Records Centre (SEWBRc)	Statutory and non-statutory nature conservation designated sites Historic Phase 1 Habitat Survey Data JNCC (1992 - 96)	SAC/ SSSI/ SPA/ Ramsar - 1km SINCs - 1km Phase 1 data - site boundary
NRW Map Info GIS Layer	Ancient semi-natural woodland (ASNW)	ASNW - 1km

Landscape context

The site and wider landscape was assessed and characterised through the use of aerial images, Ordnance Survey maps and SEWBRc habitat/protected sites maps (see Appendix 4). The presence of off-site features and habitats which add to the ecological value within the wider area, for example ponds within 500m of the site, were identified. Where appropriate, such features were scoped into the detailed assessment of impacts presented in Section 4.0 below.

Planning authority

The Vale of Glamorgan Planning Portal² was consulted to determine if any previous survey information was available for the site or the immediate surroundings.

² <http://vagonline.planning-register.co.uk/Plastandard.aspx>

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The Vale of Glamorgan County Borough Council ecologist (Erica Dixon) was consulted for site-specific survey requirements and planning obligations relating to ecology. At the time of writing no response had been received.

Site History

A request was submitted to SEWBReC for access to the data collected from the Phase 1 habitat survey of Wales which was undertaken by the former Nature Conservancy Council (NCC) during the period 1992-96. This information was reviewed to identify any change in habitat or management of the site and the surrounding area.

2.2 **Field survey**

2.2.1 **Personnel**

The field survey was undertaken in good weather on 20th of March 2015 by Daniel Seaward³ and Susanna Lewis⁴.

2.2.2 **Vegetation and habitats**

The vegetation and habitat types present within the predicted zone of influence⁵ were categorised and mapped in accordance with the standard Phase 1 Habitat assessment methodology (Joint Nature Conservation Committee, 2010). Dominant and conspicuous plant species were recorded for each habitat. Target notes were used to record information on features of ecological interest, such as evidence of, or habitats with potential to support, protected species. Following completion of the survey a colour coded habitat plan was digitised using Corel Draw 12 to show the extent and distribution of the different habitat types present within the site (Plan 2: Habitats & Vegetation).

The presence of invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act (1981), as amended, such as Himalayan balsam (*Impatiens glandulifera*) and Japanese knotweed (*Fallopia japonica*) was also noted during the survey, if present.

2.2.3 **Protected and notable species**

During the survey, emphasis was placed on searching for evidence of, and habitats with potential to support, protected or notable species, especially species meeting any of the following criteria:

³ Daniel is employed with Acer Ecology and is an experienced botanical and protected species ecologist. He graduated with a degree in Zoology from Cardiff University and has 2 years postgraduate experience. He has undertaken extensive training in protected species assessment, phase 1 habitat surveys and botanical surveying.

⁴ Susanna Lewis is employed with Acer Ecology as a graduate ecologist with experience of surveying for protected species such as bats and great crested newts. A Biological Sciences graduate from Lancaster University she has a full season of postgraduate consultancy experience.

⁵ Zone of influence: the area that may be affected by the activities associated with the development.

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- Listed under the Conservation of Habitats and Species Regulations 2010 (as amended), the Wildlife and Countryside Act 1981 (as amended);
- Listed under the Natural Environment and Rural Communities (NERC) Act 2006 Section 42 Habitats or Species of Principle Importance for Conservation of Biological Diversity in Wales;
- UK Biodiversity Action Plan (UK BAP) priority species or Local BAP (LBAP) priority species;
- Nationally rare or nationally scarce species; and
- Species of Conservation Concern (e.g. JNCC Red List, RSPB/BTO Red or Amber Lists).

Specific survey methods are described below as appropriate.

Birds

Habitats were assessed for their potential to support protected birds species, UK and Local Biodiversity Action Plan species, and breeding birds. All bird species were noted whether flying overhead, singing or feeding and the suitability of the habitat to support each species in terms of feeding, nesting and roosting was assessed.

A comprehensive bird survey such as a breeding bird survey was not undertaken as this was beyond the scope of the assessment.

Bats - inspection and assessment of tree roost potential

A ground-level visual inspection of the trees was undertaken, with the aid of binoculars, to search for bats and evidence of bats (e.g. droppings, feeding remains, urine staining, scratch marks). In addition, potential roosting features such as cavities and rot holes in the trunk and branches, splits in the timber, delaminating bark, deep bark crevices, dead branches and dense ivy cover were recorded.

The trees were subsequently appraised for their potential to support roosting and hibernating bats with reference to best practice guidance⁶. The trees were assigned to the following categories according to best practice guidance:

- Known or Confirmed Roost - signs of bats (droppings, feeding remains, urine staining, and scratch marks) or actual bats recorded; or previous records of bats in tree;
- High (Category 1*) – trees with multiple, highly suitable features capable of supporting large roosts;

⁶ Hundt, L. (2012) Bat Surveys: Guide to Good Practice. 2nd Edition. Bat Conservation Trust

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- Medium (Category 1) – a tree with definite bat potential; fewer features than category 1* or potential for single bats;
- Low (Category 2) – No obvious potential, although tree of size and age that elevated surveys may result in cracks/crevices being found; or tree has some features which have limited potential to support bats; or
- Nil (Category 3) – no potential to support bats.

There are no buildings present within the survey area therefore a building assessment was not carried out.

Dormouse

The woodland and scrub immediately adjacent to the site were assessed for their suitability to support dormice (*Muscardinus avellanarius*) with reference to guidance such as The Dormouse Conservation Handbook (Bright, Morris & Mitchell-Jones, 2006). The structure and composition of the woodland and scrub within the site were assessed with respect to the presence of flower, fruit or nut-bearing food-plants such as hazel (*Corylus avellana*), (a favoured food-plant of dormice) honeysuckle (*Lonicera periclymenum*), common hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), bramble (*Rubus fruticosus* agg.) and sycamore (*Acer pseudoplatanus*). In addition, connectivity to other areas of suitable habitat in the wider landscape, such as hedgerows and woodland, was also assessed.

A search for hazelnuts which had been opened by dormouse was undertaken to aid in the determination of their presence.

A full nest tube/box survey was not undertaken as this was beyond the scope of the assessment.

Great crested newts

The site was appraised for its suitability to support Great Crested Newts (*Triturus cristatus*). The assessment was based on guidance outlined in the Joint Nature Conservation Committees' published Herpetofauna Workers' Manual (Joint Nature Conservation Committee, 2003) and the Great Crested Newt Conservation Handbook (Langton, Beckett & Foster, 2001).

Ordnance Survey maps and aerial images of the land surrounding the site were consulted to determine if any ponds are present in the vicinity of the site. The Habitat Suitability Index (HSI) (Oldham et al. 2000) was applied to ponds within 500m where access permitted. Although there are no ponds or water bodies within the boundary of the site, there are three ponds within 500m of the site boundary. Two are located 250m and 470m to the south-west, and another at 490m to the south-east of the site. Locations and distances of the ponds from the site can be found in Plan 3: Location of ponds within 500m of site.

The index is not a substitute for undertaking great crested newt surveys but is intended to provide a measure of habitat suitability for great crested newts and to give an indication of the probability of this species being present within any given pond.

As part of the assessment, ponds are scored in relation to 10 suitability indices⁷: Each of these features is awarded a score between 0 and 1, and a final score is calculated, also between 0 and 1. This final score enables the pond to be ranked in terms of its suitability (poor, below average, average, good or excellent) and an estimate made of the likely presence of great crested newts within the pond.

A full great crested newt survey was not undertaken as this was beyond the scope of the assessment.

Badgers

The site was searched for features likely to contain badger (*Meles meles*) setts (e.g. earth embankments, wooded copses etc.). Where present the location of badger signs such as runs, dung pits, prints, hair and foraging snuffle holes were recorded.

A full badger survey was not undertaken as this was beyond the scope of this assessment.

Other species

General habitat suitability and incidental sightings of other animal species were also noted.

2.4 Assessment of ecological value

The value of the habitats and features of the site have been provisionally evaluated and graded in accordance with a geographical frame of reference as detailed in *Guidelines for Ecological Impact Assessment in the United Kingdom* (IEEM 2006). The level of value of specific ecological receptors is assigned using a geographic frame of reference, i.e. international value being most important, then national, regional, county, district, local and lastly, within the immediate zone of influence of the site only. Brief descriptions of how Acer Ecology interprets these categories are set out in Appendix 3.

2.5 Constraints and limitations

The present survey was undertaken outside of the optimal survey period for certain species of flora and fauna, with many species having died back or having become inconspicuous at the time of survey. The survey can be considered as providing a reasonable, though not exhaustive or full plant list. This survey noted the habitat types on the site, and the dominant vegetation at

⁷ The 10 suitability indices are: location, pond area, pond drying, water quality, shade, waterfowl presence, fish presence, number of ponds in the local area, terrestrial habitat, and macrophyte cover.

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the time of the survey which is likely to be constant and a fair reflection of the habitat quality present.

3.0 Results

3.1 Desk study

3.1.1 Statutory nature conservation designated sites

The protected sites plan provided by SEWBReC (Appendix 4) shows that there are no statutory sites designated for their conservation value within a 1km search radius of the site.

In addition, no Special Areas of conservation (SAC) that have been specially designated for bats lie within 10km of the site.

3.1.2 Non-statutory nature conservation designated sites

Several Sites of Importance for Nature Conservation (SINCs) were recorded within the 1km search area. These include:

- Leckwith Woods SINC located immediately to the east of the development site. Described as an extensive area of lowland mixed deciduous woodland, designated under the criteria of native woodlands.
- Caerau Wood SINC located approximately 310m to the south-west of the development site. No further information on the site was available at the time of writing.
- West Hill Woods SINC located 1km to the south-east of the development site. Described as being both ancient semi-natural and semi-natural broadleaved woodland on an ancient woodland site, designated under the criteria of native woodlands.

3.1.3 Ancient woodland

There are six areas of Ancient Semi-Natural Woodland (ASNW) located within 1km of the site. These are identified and described below:

- Caerau Woods ASNW lies adjacent to the southern boundary of the site;
- A small area of unnamed ASNW are located adjacent to the south-western boundary of the site;
- A second small area of unnamed ASNW are located adjacent to the south-western boundary of the site;
- Leckwith Woods SINC (ASNW & PAWS) lies adjacent to the eastern boundary of the site;
- An unnamed area of ASNW lies 420m to the south of the site; and
- Another discrete area of Caerau Woods SINC & ASNW lies 480m to the south-west of the site.

3.1.3 **Landscape context**

The site proposed for development lies on the south-eastern edge of the settlement of Caerau, a conurbation located on the western edge of Cardiff.

The local landscape to the north-west consists predominantly of residential housing and associated gardens, separated from the site by the A4232 with vegetated verges. To the west of the site lies Caerau Woods SINC & ASNW. Immediately to the south lies another section of Caerau Woods ASNW, which continues on to agricultural land, bordered by a network of hedgerows, mature trees and small copses. To the east lies Leckwith Woods SINC (comprising a mixture of ASNW and PAWS).

The site is well connected to the south due to the strong network of hedgerows which interlink areas of woodland. However, the busy A4232 road and settlement of Caerau to the north present a significant barrier to the movement and dispersal of many terrestrial species such as mammals, amphibians and reptiles.

3.1.4 **Site history**

A request was submitted to SEWBReC for access to the data collection from the Phase 1 habitat survey of Wales which was undertaken by the former Nature Conservancy Council (NCC) during the period 1992-96. This information was reviewed to identify any change in habitat or management of the site and the surrounding area.

After consultation of the historic Phase 1 habitat survey results, the site was historically predominantly comprised of short perennial/ ephemeral land, with an area of scattered coniferous woodland in the south-west of the site. More recently the site has been used for horse and sheep grazing before it was rotovated ready for reseeded in the spring (Matt Feakins *Pers. comm.*).

3.2 **Habitats and vegetation**

The results of the general survey of the habitats and vegetation are shown on Plan 2. A botanical species list is given in Appendix 2.

3.2.1 **Summary of habitats present within the site**

The site consists of six elements which are described in detail below. These comprise:

- Broadleaved woodland;
- Scree;
- Rock exposure;
- Ephemeral/ short perennial;

- Earth banks; and
- Bare ground.

3.2.2 Notable plant species

Data trawl results

No records of rare plants originate from within the proposed development site. SEWBReC returned a total of two records of priority/ protected species within 2km of the site. These include the following:

- Bluebell (*Hyacinthoides non-scripta*) located 898m to the west of the site in Caerau woods; and
- Red star-thistle (*Centaurea calcitrapa*) located 1.60km to the south of the site.

None of the records provided relate to the proposed development site.

No rare species present

No plant species were recorded on the site which individually by themselves are considered to be either of national, regional or local significance.

3.2.3 Broadleaved woodland

The site of the proposed development is located within a larger site owned by Ermaer Ltd which includes the broadleaved woodland immediately surrounding the proposed development site.

Broadleaved woodland is present off-site, along the northernmost boundary of the site (Photo 1). The majority of the trees in this area are young to semi-mature with a diameter at breast height (DBH) of no more than 20cm. The trees are all of an even age which suggests that they were planted at the same time. The canopy of the woodland is made up predominantly of beech (*Fagus sylvatica*) and poplar (*Poplar* sp.). Other species such as birch (*Betula* sp.), ash (*Fraxinus excelsior*), willow (*Salix* sp.), common hawthorn (*Crataegus monogyna*), hazel (*Corylus avellana*) and a few scattered firs are present, along with a shrub layer of similar composition. There is a fairly scanty understory of wood sedge (*Carex sylvatica*), spear thistle (*Cirsium vulgare*), teasel (*Dipsacus fullonum*), wild strawberry (*Fragaria vesca*), dove's-foot crane's-bill (*Geranium molle*), common mallow (*Malva sylvestris*), creeping buttercup (*Ranunculus repens*) and bramble (*Rubus fruticosus*).

The remainder of the site is surrounded by broadleaved woodland adjacent to the eastern (Photo 2), southern (Photo 3), and western boundaries (Photo 4). The majority of the trees are semi-mature with a DBH of no more than 25cm. The canopy of the woodland is dominated by

a fairly even mix of beech, ash, hazel and hawthorn. Species recorded in the understory include lords and ladies (*Arum maculatum*), hart's tongue fern (*Asplenium scolopendrium*), sweet woodruff (*Galium odoratum*), ivy (*Hedera helix*), soft-shield fern (*Polystichum setiferum*), primrose (*Primula vulgaris*) and bramble.

Wood sedge, sweet woodruff, soft-shield fern and primrose are all indicators of ancient woodland sites (WBP 2008)⁸.

3.2.4 **Scree**

The western end of the site is demarcated by an area of scree (Photo 5) between the bare ground and the woodland edge to the west. A few small ash shrubs are scattered across the scree.

3.2.5 **Rock exposure**

A small area of exposed rock face with a gentle, eastward incline is located on the southern boundary close to the centre of the site (Photo 6).

3.2.6 **Short perennial/ ephemeral**

There are two areas of short perennial/ ephemeral vegetation on the south-western (Photo 7) and south-eastern corners (Photo 8) of the site. Both have irregular westward sloping inclines up to the surrounding woodland. Vegetation is dominated by Yorkshire fog (*Holcus lanatus*), other species recorded include creeping thistle (*Cirsium arvense*), common bird's-foot-trefoil (*Lotus corniculatus*), forget-me-not (*Myosotis* sp), ribwort plantain (*Plantago lanceolata*), creeping cinquefoil (*Potentilla reptans*), ragwort (*Senecio jacobaea*), creeping buttercup and dove's-foot crane's-bill.

3.2.7 **Earth banks**

This demarcates much of the southern boundary of the site (Photo 9). A few small shrubs are present along the base of the bank, with a small amount of scattered ivy and ferns (soft-shield and hart's tongue) at various elevations.

3.2.8 **Bare ground**

This habitat makes up the majority of the site (Photo 10). Recent rotovation has created an uneven soil surface with very sparse vegetation scattered across the site and along the edges (Photo 11). Species recorded are Yorkshire fog, creeping buttercup, creeping thistle and bramble.

3.3 **Protected and Notable Species**

⁸ Wales Biodiversity Partnership (WBP) 2008

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3.3.1 Birds

Data trawl results

SEWBReC provided numerous records for birds within 2km of the site. The following table shows nesting birds associated with the woodland habitats immediately adjacent to the site and their conservation status:

Species	Schedule 1	NERC S42	UK BAP	LBAP	Red list
Pied flycatcher (<i>Ficedula hypoleuca</i>)		Yes		Yes	
Linnet (<i>Carduelis cannabina</i>)		Yes		Yes	R
Spotted flycatcher (<i>Muscicapa striata</i>)		Yes	Yes	Yes	R
Marsh tit (<i>Poecile palustris</i>)		Yes	Yes	Yes	R
Dunnock (<i>Prunella modularis</i>)		Yes	Yes	Yes	
Bullfinch (<i>Pyrrhula pyrrhula</i>)		Yes	Yes	Yes	
Song thrush (<i>Turdus philomelos</i>)		Yes	Yes	Yes	R

Field survey results

A moderate number of bird species were recorded on site such as goldfinch (*Carduelis carduelis*), woodpigeon (*Columba palumbus*), crow (*Corvus corone*), blue tit (*Cyanistes caeruleus*) robin (*Erithacus rubecula*), great tit (*Parus major*), magpie (*Pica pica*), goldcrest (*Regulus regulus*), blackbird (*Turdus merula*) and Dunnock (*Prunella modularis*).

All of the bird activity recorded was in the surrounding, off-site woodland. The site proposed for development provides no nesting opportunities for birds and no impacts are envisaged to arise from the development. Birds are not discussed further in this report.

3.3.2 Bats

Data trawl results

The data search returned a total of seven records of bat roosts within 2km of the site. These were as follows:

- An unspecified number of chiroptera recorded in 2009 approximately 398m to the north;
- 10+ chiroptera recorded in 2009 approximately 546m to the west of the site;
- An unspecified number of chiroptera recorded in 2007 approximately 1km to the north;
- An unspecified number of chiroptera recorded in 2009 approximately 1.2km to the south west;
- An unspecified number of chiroptera recorded in 2004 approximately 1.2km to the south west;
- 48 chiroptera recorded in 2008 approximately 1.2km to the south west; and
- 30 chiroptera recorded in 1993 approximately 1.3km to the north-west.

There are 19 non-roosting records of bats within a 2km radius of the site. This includes records of common pipistrelle (*Pipistrellus pipistrellus*); noctule (*Nyctalus noctula*); lesser horseshoe (*Rhinolophus hipposideros*), and unidentified chiroptera.

Field survey results

All the trees immediately adjacent to the site boundary were assessed as having negligible potential to support roosting bats due to the absence of roosting features such as holes, cracks, crevices or a dense coverage of ivy. The surrounding woodland edge provides potential foraging and commuting habitat for bats. However, no works are to be undertaken at night and no trees will be affected as part of the development. Therefore, no impacts to bats are envisaged to arise as part of the development. Bats are not discussed further in this report.

3.3.3 **Dormouse**

Data trawl results

SEWBRc did not return any published records of dormouse from within 2km of the site (SEWBRc data 2015).

Field survey results

No dormice or signs of their presence were recorded on site. A small amount of hazel was recorded within the surrounding woodland immediately off-site, however these shrubs were immature and unlikely to produce large quantities of hazelnuts, if any. Furthermore, there are no records of dormice in the local area. The structure of the surrounding woodland is suitable for supporting dormice and so their presence in these areas cannot be ruled out. However, the development proposals will not affect these areas of woodland and the site proposed for development comprising bare ground is highly unsuitable for dormice, therefore it is considered unlikely that dormice will be encountered during the development. Dormice are not discussed further in this report.

3.3.4 **Great Crested Newt**

Data trawl results

SEWBRc did not return any records of great crested newt from within 2km of the site. The data search returned a total of four records of amphibians within 2km of the site. These were as follows:

- An unspecified number of common frog (*Rana temporaria*) recorded in 2008 approximately 456m from site;
- An unspecified number of common frog recorded in 2008 approximately 797m from site;

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- 10 adult common frogs recorded in 2003 approximately 990m from site; and
- 1-4 adult common toads (*Bufo bufo*) recorded in 2003 approximately 990m from site.

Field survey results

No direct observation or evidence of great crested newt was recorded on site although a targeted survey was not undertaken for this species. In addition, the current survey was undertaken outside of the active season for great crested newt.

The bare ground, exposed rock, scree and areas of short perennial/ephemeral vegetation are all unsuitable habitats for terrestrial-phase great crested newts. The surrounding off site woodlands is connected via a network of hedgerows to the three ponds within the 500m buffer, two of which lie 250m (Pond 1) and 430m (Pond 2) to the south-west of the site, the other 490m (Pond 3) to the south-east. Locations and distances of the ponds from the site are included in Plan 3: Location of ponds within 500m of site.

A HSI was performed on Pond 1. A HSI was not performed on Pond 2 or Pond 3 due to access constraints.

	Pond 1
SI1 Field location	0.5
SI2 Pond area	0.05
SI3 Pond drying	1
SI4 Water quality	0.67
SI5 Shade	0.4
SI6 Fowl	0.67
SI7 Fish	1
SI8 Ponds	0.9
SI9 Terrestrial habitat	0.67
SI10 Macrophytes	0.75
HSI SCORE :	0.54
Suitability:	Below Avg.

The pond has below average suitability to support great crested newts, most likely due to its small size and heavy amount of shading.

The land between the site proposed for development and the ponds is comprised of grazed farmland, arable fields, hedgerows and woodland providing moderate connectivity between the ponds and site. However, as the site proposed for development provides no suitable habitats for great crested newt, the probability of encountering this species on site is highly unlikely. Great crested newts are not discussed further in this report.

3.3.5 Reptiles

Data trawl results

The data search returned a total of three records of reptiles within 2km of the site (SEWBRcC data 2015).

- Two slow-worms (*Anguis fragilis*) recorded in 2013 approximately 174m from site;
- An unspecified number of slow-worm recorded in 2012 approximately 1.9km from site; and
- An unspecified number of common lizard (*Zootoca vivipara*) recorded in 2012 approximately 1.9km from site.

Field survey results

No incidental sightings of reptiles were recorded on site. Slow-worms have been recorded 174m to the north of the site, however the A4232 acts as a significant barrier to dispersal for reptiles. The north facing topography of the site and shade from the woodland topped banks means that much of the site is poorly exposed to sunlight required by reptiles for thermoregulation. It also lacks the complex mosaic of habitats required to meet all the needs of reptiles. While the areas of exposed rock and scree could potentially be used as basking areas, and there are some areas of cover in the adjacent woodland, overall the area is considered to be poorly suitable for reptiles. The bare ground of the proposed development site lacks any suitable features such as refugia or cover, therefore it is considered highly unlikely that reptiles will be encountered during the proposed development. Reptiles are not discussed further in this report.

3.3.6 Badgers

Data trawl results

The data search returned a total of one badger record within 2km of the site (SEWBRcC data 2015). This individual was recorded in 2008 in Leckwith Wood SINC approximately 1.3km to the south east.

Field survey results

No setts or signs of badger were recorded on site, although a targeted survey of this species was not undertaken. The bare ground of the proposed site for development may provide foraging opportunity for badgers. The site may also be used by commuting badgers to access foraging habitats.

4.0 Ecological evaluation, legislation and assessment of development impacts

The ecological value of the in-situ habitats and the potential presence of protected species is discussed in this section, along with a summary of relevant legislation and planning policy relating to habitats and species. Potential impacts arising from the proposed development upon protected sites, in-situ habitats and protected or notable species are identified including both direct and indirect impacts, and those associated with construction and operational stages.

4.1 Protected sites

4.1.1 Statutory designated sites

There are no statutory designated sites within 1km of the site proposed for development.

4.1.2 Non-statutory designated sites

Legislation regarding SINCs

SINC

s are one of a class of nature conservation designations collectively referred to as 'Wildlife Sites'. Wildlife Sites are so-called 'third tier' sites, generally ranked below sites which are of international (first tier) or national (second tier) biodiversity significance, but which are considered to have substantive nature conservation value at the regional or district level. 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 (2014)* and *Technical Advice Note (Wales) 5: Nature Conservation & Planning*. In the Vale of Glamorgan County Borough, SINCs are also afforded protection under Policy ENV 15 of the adopted Unitary Development Plan.

Policy regarding ASN

The UK is a sparsely wooded country: 11.5% of Great Britain is covered with trees. Only 1.2% of GB is ancient semi-natural woodland, a valuable and irreplaceable natural resource. Ancient semi-natural woodland, and plantations on ancient woodland sites, are a priority for conservation (JNCC).

4.1.2.1 Leckwith Woods SINC

Assessment of ecological value

Leckwith woods SINC is designated under the criteria of native woodlands. In addition, a number of records of priority and protected species within this site were also returned by SEWBReC including badger, song thrush and lesser horseshoe bat.

Assessment of potential development impacts

The proposed development will not have a direct effect on Leckwith Woods SINC. No negative effects are considered to occur upon song thrush as the proposed development will not affect any trees in adjacent habitats. Negative impacts upon foraging and commuting bats are not envisaged to occur as no works will be undertaken at night. However, the fencing to be erected around the site may have a negative effect on badger potentially using the site for foraging or commuting. In addition, the excavations of the clay pits may present a danger for badgers falling in and being unable to escape. Recommendations to minimise the effects on badger are presented in Section 5.0 below.

4.1.2.2 **Caerau Woods SINC**

Assessment of ecological value

No information about Caerau Woods SINC was available at the time of writing however it is assumed that the site is designated under the criteria of native woodlands. This area lies 310m to the south-west of the site, beyond the busy A4232. In addition, pipistrelle (*Pipistrellus* sp.) bats have been recorded in Caerau Woods (SEWBReC data 2015).

Assessment of potential development impacts

The proposed development will not have a direct effect on Caerau Woods SINC. No negative effects are considered to occur upon pipistrelle bats as no works will be undertaken during the night.

4.1.2.3 **West Hill Woods SINC**

Assessment of ecological value

West Hill Woods is located 1km to the south-east of the development site and is designated under the criteria of native woodlands. SEWBReC returned no records of priority or protected species from this area.

Assessment of potential development impacts

The proposed development will not have a direct effect on West Hill Woods SINC. No negative impacts to this site are envisaged to arise from the development.

4.1.2.4 **Caerau Woods ASNW & unnamed ANSW**

Assessment of ecological value

Three areas of ASNW lie immediately to the south of the site. SEWBReC returned no records of priority or protected species from these areas.

Assessment of potential development impacts

The proposed development will not have a direct effect on these areas of ASNW. However, the fencing to be erected around the site may have a negative effect on badger potentially commuting across the site. Recommendations to minimise the effects on badger are presented in Section 5.0 below.

4.2 **Assessment of ecological value of on-site habitats**

The site proposed for development is almost entirely comprised of bare ground with limited ecological value. Therefore, no negative impacts are envisaged to arise from the development.

4.3 **Protected and notable species**

The site of the proposed development was assessed for its suitability to support a number of protected and notable species. Based on the habitats present, historical records and the proposed development plans a number of species, such as birds, bats, dormice, great crested newts and reptiles, have already been assessed as having negligible potential of being present on site or affected by the proposed developments.

4.3.1 **Badgers**

Assessment of ecological value of badgers

The bare ground on site may provide suitable foraging opportunities for badger. In addition, badgers are highly mobile and will readily travel between suitable foraging habitats and therefore the site could be used by commuting badgers.

Legislation

Badgers (*Meles meles*) are protected in Wales under 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 South Wales.

Assessment of development impacts of proposed development on badgers

The probability of encountering resident badgers on site is considered highly unlikely, however, they may pass through occasionally when commuting or foraging. As badgers are nocturnal, the risk of encountering them on site during works (which will take place during daylight hours)

is considered to be negligible. However, erection of fencing around the site may block badgers from using commuting routes across the site. Measures to mitigate against negative impacts to badger are recommended in Section 5.0.

4.4 **Future developments**

The works outlined in this report describe a phase in part of a five year plan for the site. The final aim is to level the site in line with the surrounding topography and replant the area with native tree species matching the composition of the surrounding woodland habitat.

5.0 Recommendations for further survey, mitigation and enhancements

The following recommendations are made to avoid or minimise adverse impacts to wildlife features and protected species:

Badger

No setts or signs of badger activity were recorded within the site however, in accordance with good practice; any excavations associated with development should be fenced and securely closed at night to stop badgers falling in any excavations. In addition to this, fencing used to block access onto or off of the site should be fitted with 'badger gates' to allow badgers continued access to the site for foraging or commuting by maintaining a 30cm gap at ground level.

6.0 References and bibliography

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<<http://wales.gov.uk/docs/desh/publications/140731planning-policy-wales-edition-7-en.pdf>>

[accessed: 26/09/2014]

Plan 1: Location plan



**Former Ely Brickworks
Ely**
**Plan 1:
Location Plan**

Key:

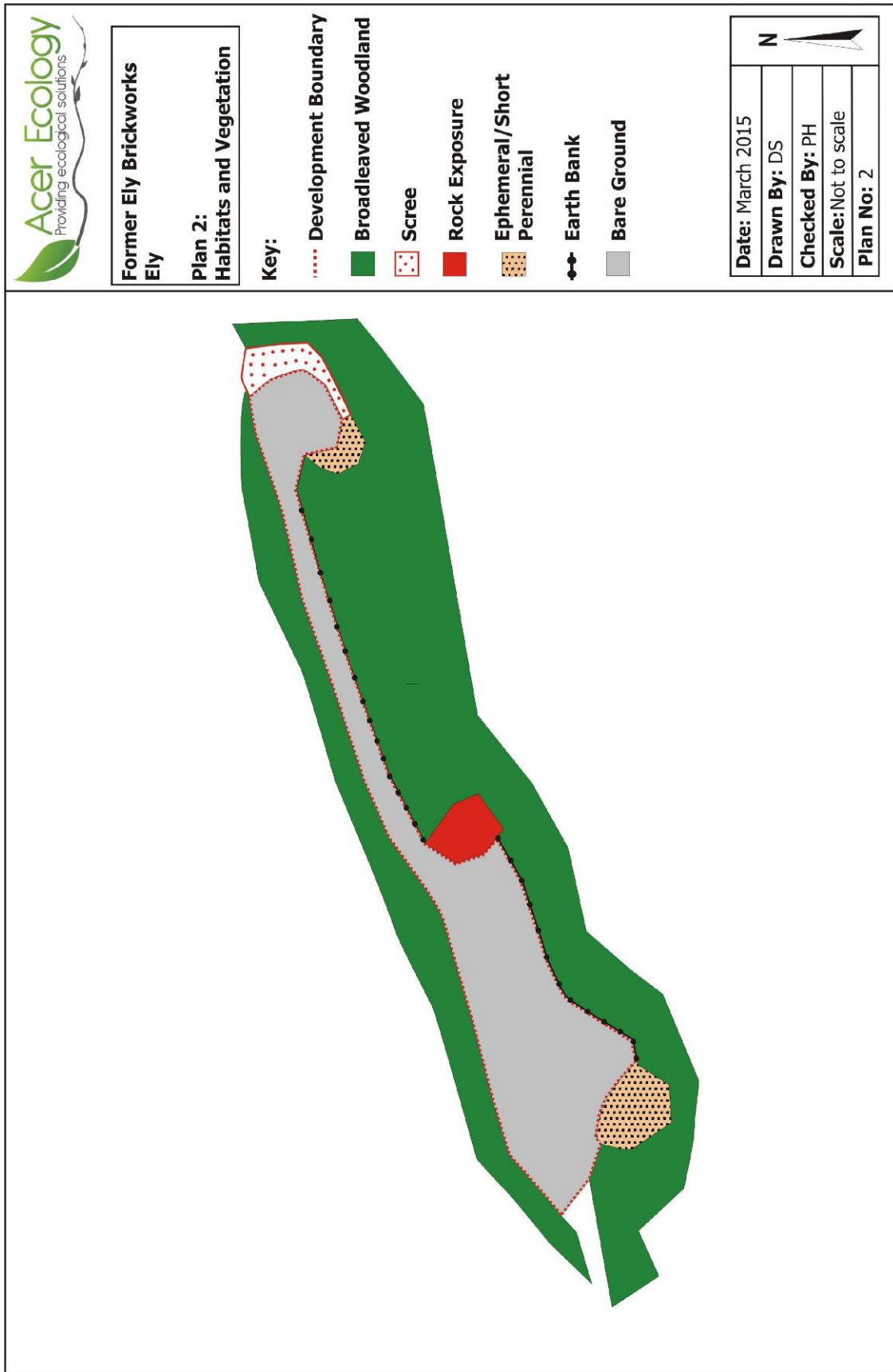
— Development Boundary

Date: March 2015
Drawn By: SL
Checked By: PH
Scale: Not to scale
Plan No.: 1



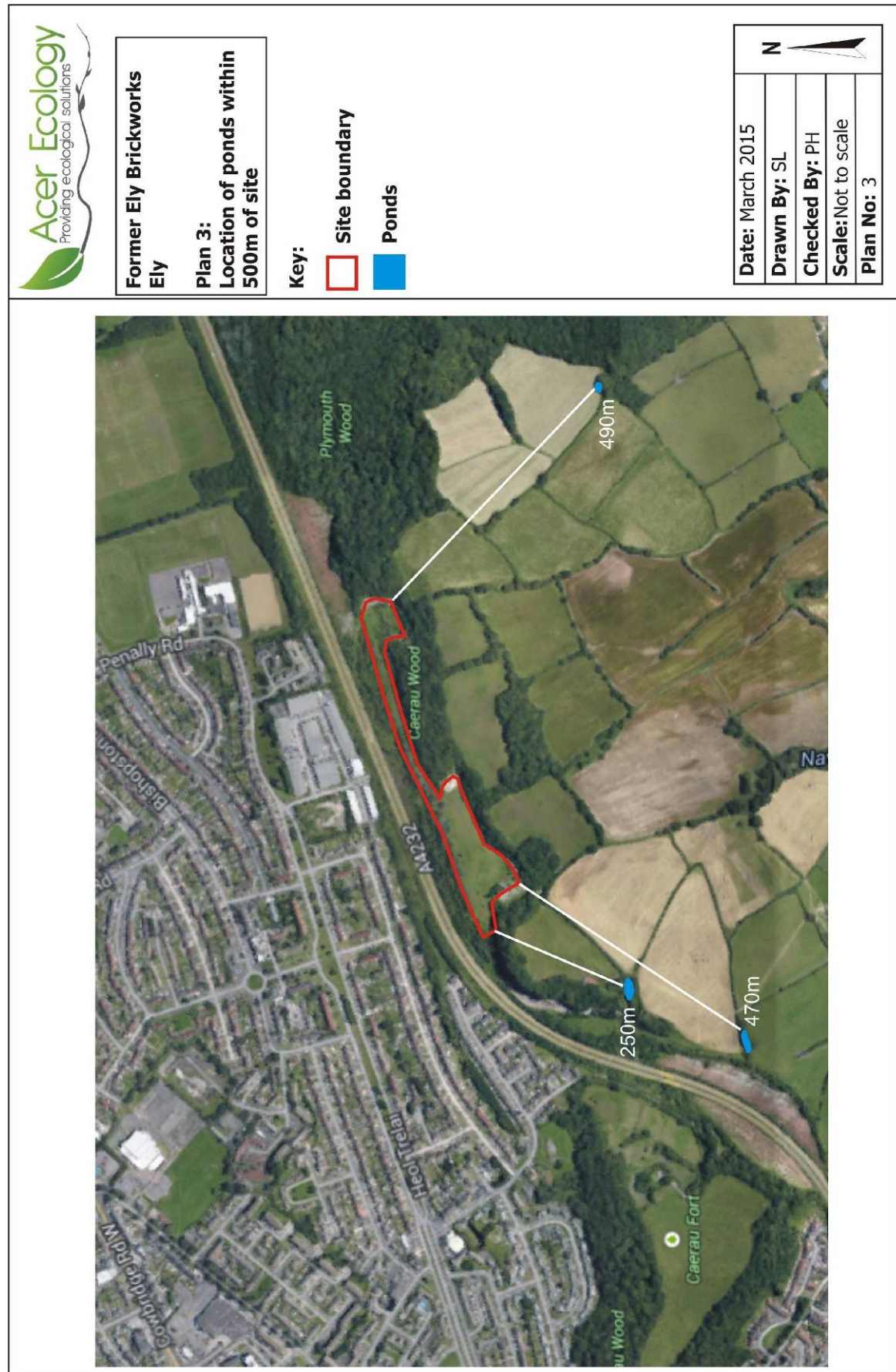
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Plan 2: Habitats and vegetation



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Plan 3: Location of ponds within 500m of site



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Appendix 1: Photographic record March 2015



Photo 1: Broadleaved woodland along site's northern boundary.



Photo 2: Broadleaved woodland along site's eastern boundary.



Photo 3: Broadleaved woodland along site's southern boundary and earth bank.



Photo 4: Broadleaved woodland along site's western boundary.



Photo 5: Area of scree on eastern boundary

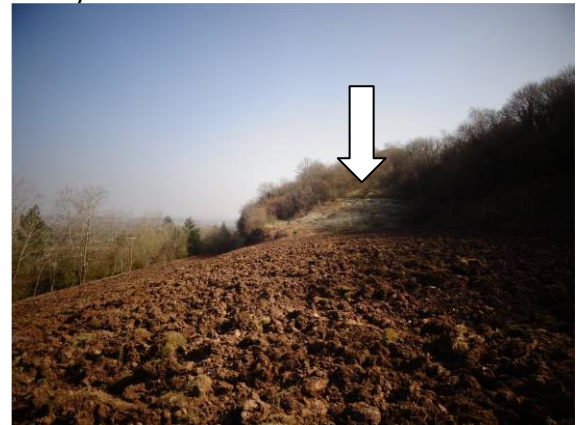


Photo 6: Area of exposed rock

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Photo 7: Western area of short perennial/ephemeral



Photo 8: Eastern area of short perennial/ephemeral



Photo 9: Earth banks



Photo 10: Bare ground – rotovated with sparse vegetation



Photo 11: Vegetation along site edge

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Appendix 2: Species recorded

All species recorded by Acer Ecology 2015

Species	Common name	W	NG	CG	AG	MG	PIL	TF	Status
Trees and shrubs									
<i>Betula</i> sp.	Birch								
<i>Corylus avellana</i>	Hazel								
<i>Crataegus monogyna</i>	Common hawthorn								
<i>Fagus sylvatica</i>	Beech								
<i>Fraxinus excelsior</i>	Ash								
<i>Poplar</i> sp.	Poplar								
<i>Salix</i> sp.	Willow								
Herbaceous species									
<i>Arum maculatum</i>	Lords and Ladies								
<i>Asplenium scolopendrium</i>	Hart's tongue fern								
<i>Carex sylvatica</i>	Wood sedge	W							
<i>Cirsium arvense</i>	Creeping thistle								
<i>Cirsium vulgare</i>	Spear thistle								
<i>Dipsacus fullonum</i>	Teasel						PIL		
<i>Fragaria vesca</i>	Wild strawberry								
<i>Galium odoratum</i>	Sweet woodruff	W							
<i>Geranium molle</i>	Dove's-foot crane's-bill								
<i>Hedera helix</i>	Ivy								
<i>Holcus lanatus</i>	Yorkshire fog								
<i>Lotus corniculatus</i>	Common bird's-foot-trefoil		NG	CG			PIL		
<i>Malva sylvestris</i>	Common mallow								
<i>Plantago lanceolata</i>	Ribwort plantain								
<i>Potentilla reptans</i>	Creeping cinquefoil								
<i>Polystichum setiferum</i>	Soft shield fern	W							
<i>Primula vulgaris</i>	Primrose	W							
<i>Ranunculus repens</i>	Creeping buttercup								
<i>Rubus fruticosus</i> agg.	Bramble								
<i>Senecio jacobaea</i>	Ragwort								

WBP 2008 'indicator species' totals	4	1	1	AG	MG	2	TF
	W	NG	CG			PIL	

Key to indicator species (WBP 2008)

W - Woodland, NG - Neutral Grassland, CG - Calcareous Grassland, AG – Acid Grassland, MG Marshy Grassland, PIL – Post Industrial Land, TF Species-rich Tillage Fields and Margins

Appendix 3: Definitions of site value

International value

Internationally designated or proposed sites such as Ramsar Sites, Special Protection Areas, Biosphere Reserves and Special Areas of Conservation, or non-designated sites meeting criteria for international designation. Sites supporting populations of internationally important species or habitats.

National value

Nationally designated sites such as Sites of Special Scientific Interest (SSSIs), or non-designated sites meeting SSSI selection criteria (NCC 1989), National Nature Reserves (NNRs) or Nature Conservancy Review (NCR) Grade 1 sites, viable areas of key habitats within the UK Biodiversity Action Plan. Sites supporting viable breeding populations of Red Data Book (RDB) species (excluding scarce species), or supplying critical elements of their habitat requirements.

Regional value

Sites containing viable areas of threatened habitats listed in a regional Biodiversity Action Plan, comfortably exceeding Site of Importance for Nature Conservation (SINC) criteria, but not meeting SSSI selection criteria. Sites supporting viable populations of Nationally Scarce species or those included in the Regional Biodiversity Action Plan on account of their rarity, or supplying critical elements of their habitat requirements.

District value

Site identified as a Site of Importance to Nature Conservation (SINC) at the district level; meeting SWWSP 2004 published designation criteria, but falling short of SSSI designation criteria, whether designated as a SINC or not. 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.

High local value

Habitats which just fail to meet Regional value criteria, but which appreciably enrich the ecological resource of the locality. Sites 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

Undesignated sites or features which appreciably enrich the habitat resource in the context of their immediate surroundings, parish or neighbourhood (e.g. a species-rich hedgerow). Rare or uncommon species may occur but are not restricted to the site or critically dependant upon it for their survival in the area.

Site value (within the immediate zone of influence)

Low-grade and widespread habitats.







Negligible

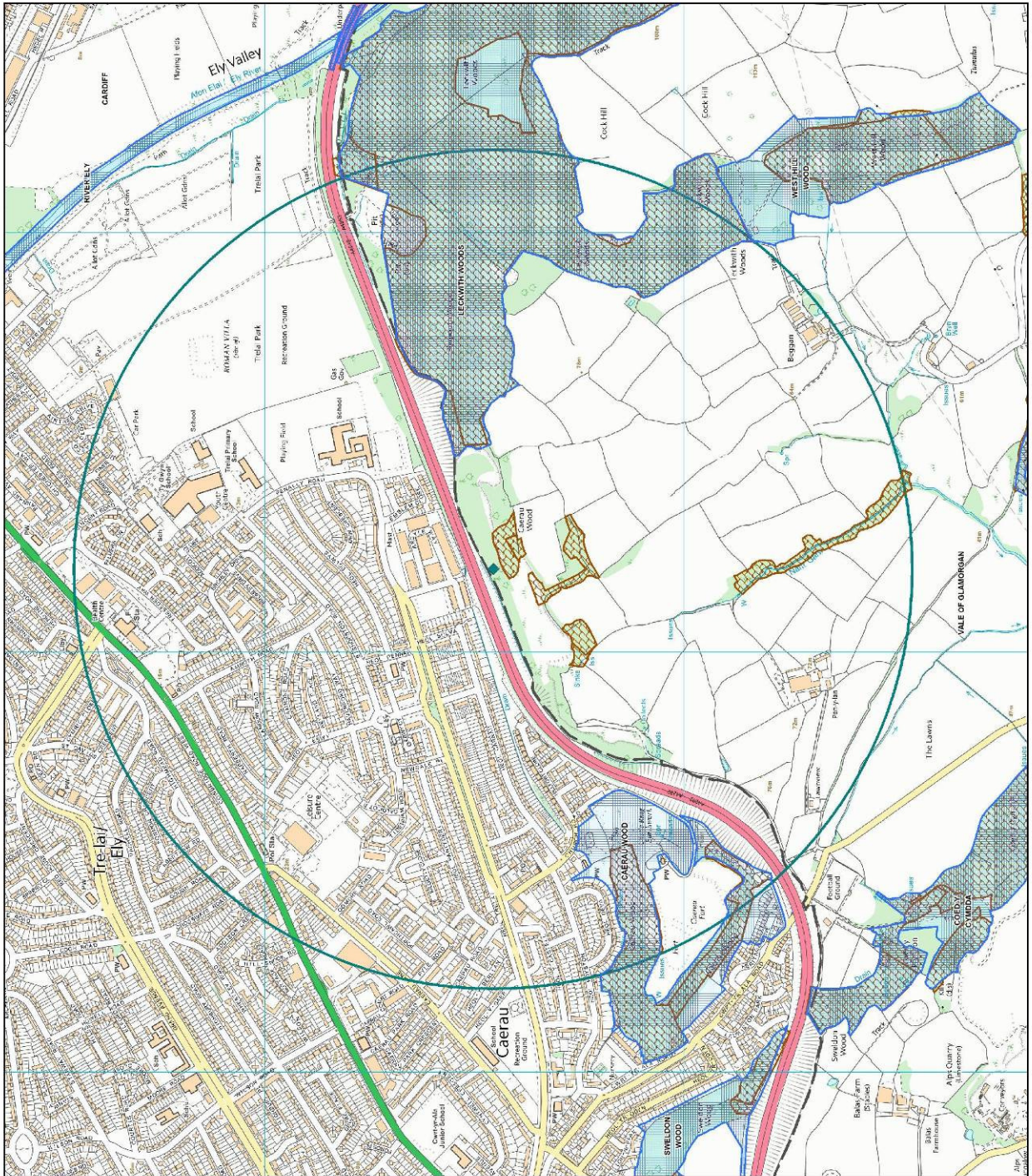
No apparent value.

Appendix 4: SEWBReC sites & species maps

BIODIVERSITY INFORMATION SEARCH (DESIGNATED SITES):

CAERAU WOODS ST141975455

-  Centre of Search Area
-  1km Search Buffer
-  Site of Importance for Nature Conservation
-  Ancient Woodland
- 1: ASNW; 2: RAWIS; 3: PAWS; 4: AWSU
-  See report for full descriptions
-  Unitary Authority Boundary



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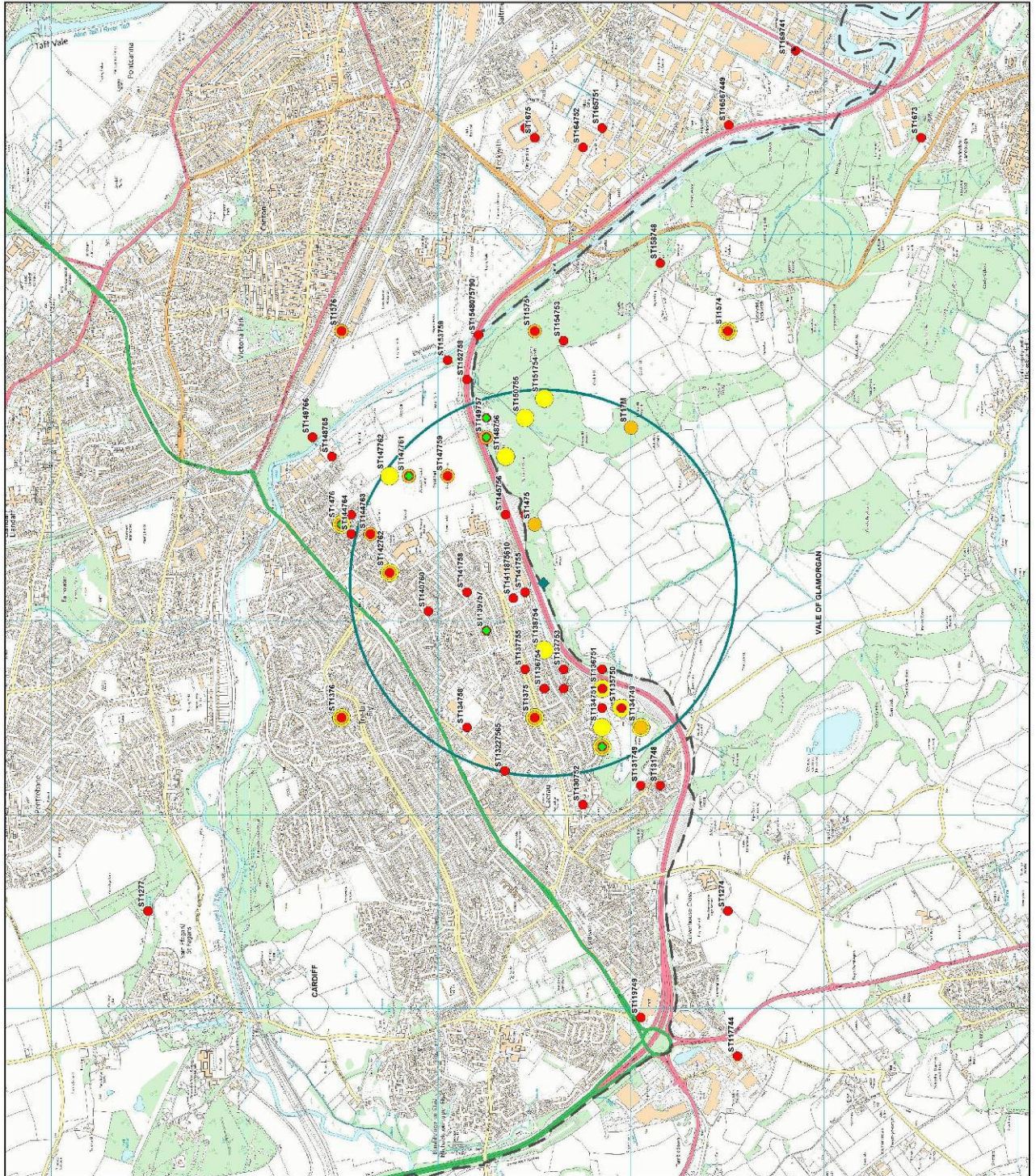


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BIODIVERSITY INFORMATION SEARCH (SPECIES):

CAERAU WOODS
ST1419775455

-  Centre of Search Area
-  1km Search Buffer
-  Protected and Priority Species
-  Other Species of Conservation Concern
-  Locally Important Species
-  Invasive Non-Native Species
-  Unitary Authority Boundary



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