



Ecological Assessment

Land off Minera Hall Road

Ref: JWE/1494B

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THIS REPORT REPRESENTS AN INITIAL ECOLOGICAL ASSESSMENT OF THE SITE. FURTHER SURVEYS, AS DESCRIBED IN THE CONCLUSIONS SECTION, MAY NEED TO BE IMPLEMENTED PRIOR TO THE SUBMISSION OF A PLANNING APPLICATION.

ECOLOGICAL ISSUES ARE A MATERIAL CONSIDERATION IN DETERMINING PLANNING APPLICATIONS AND ALL RELEVANT SURVEYS MUST BE COMPLETED PRIOR TO APPLYING FOR PLANNING PERMISSION.

PLEASE NOTE THAT WHILST EVERY EFFORT HAS BEEN MADE TO ENSURE THAT THE CONTENT OF THIS REPORT IS ACCURATE THE SURVEY REPRESENTS ONLY A SNAPSHOT IN TIME AND THE ECOLOGICAL ISSUES ON SITE MAY CHANGE. THE ADDITIONAL SURVEY WORKS RECOMMENDED IN THIS REPORT ARE WHAT IS THOUGHT TO BE REQUIRED IN THE OPINION OF THE SURVEYOR. THE LOCAL PLANNING AUTHORITY OR NATURAL ENGLAND MAY IN SOME CASES REQUEST ADDITIONAL INFORMATION NOT OUTLINED IN THIS REPORT.



1.0 INTRODUCTION

- 1.1 J W Ecological Limited were commissioned in July 2014 to undertake a baseline ecological assessment of an area of land to the north of Minera Hall Road, Minera, Wrexham (SJ 27429 51885). The full survey area is shown on the site location plan D/JWE/1494/001 (Appendix 1).
- 1.2 The aims of this ecological assessment were to:
- Assess and describe the Valuable Ecological Components (VECs) of the proposed development site and all land within 250 metres (referred to as “the wider survey area”).
 - Assess the likely ecological impacts of the development.
 - Identify further survey and mitigation requirements
 - Identify ecological features of the site that should be protected
 - Provide guidance as to ecological enhancement of the site
- 1.3 To meet the aims of the ecological assessment the following actions were undertaken:
- Desktop study of all land within 500 metres of the development site
 - Extended phase one habitat survey of the development site and adjacent land
- 1.4 The sites ecological value was assessed in context with current UK planning and legislative policy, including:
- Protected sites (statutory and non-statutory)
 - Statutorily protected species
 - UK and local Biodiversity Action Plan (BAP) species
 - Species and habitats of local concern
 - Local wildlife strategies
- 1.5 Prior to any survey work a health and safety risk assessment of the site was undertaken. Risk assessments are undertaken on a site by site basis in order to identify potential risks with the aim to reduce these as far as is practicable.

2.0 SITE LOCATION AND DESCRIPTION

- 2.1 The site is located on the northern side of Minera Hall Road, on the eastern fringe of Minera.
- 2.2 The site comprises three arable fields with mature hedgerow field boundaries. Two small areas of woodland are located on the southern site boundary adjacent to Minera Hall Road.
- 2.3 The survey area is bordered by a playing field to the north, additional fields to the east, Minera Hall Road to the south and by a residential area to the west.



3.0 DESKTOP STUDY

- 3.1 Ecological data and records of protected species were requested/gathered from the following sources (Table 1):

Table 1: Desktop Study Sources

Consultee/Source of Information	Information Supplied
NBN Gateway	Protected species and site records within 1 kilometre of the proposed development site.
Cofnod	Protected species records within 1 kilometre of the proposed development site.
Natural Resources Wales (NRW)	Protected nature conservation sites within 1 kilometre of the survey area.
UK Biodiversity Action Plan	Identification of national priority species and habitats known to occur in the region.
Local Biodiversity Action Plan	Identification of local priority species and habitats known to occur in the area.

Statutorily Protected Sites

- 3.2 The Ruabon Mountain and Minera Site of Special Scientific Interest (SSSI) is located approximately 900 metres south-west of the survey area.

Non-Statutorily Designated Sites

- 3.3 Five local wildlife sites are located within 1 kilometre of the survey area. The closest of these to the site is "The Smelt" which is located approximately 150 metres south of the survey area.

Protected Species

- 3.4 Bat species including pipistrelle and lesser horseshow have been recorded within 1 kilometre of the site. The lesser horseshoe records are associated with the nearby SSSI.

Badgers have been sited within 1 kilometre of the site.

Reptile species including slow worm, adder and common lizard have been recorded within the Minera Country Park approximately 900 metres south of the survey area.

The full Cofnod search results are provided in Appendix 4.



3.5 Based on information gathered from the sources listed above and desk based assessment of the site from OS maps and aerial photographs the following protected species were taken into account during the site assessment:

- Bats (all species);
- Great crested newt (*Triturus cristatus*);
- Badger (*Meles meles*);
- Water Vole (*Arvicola terrestris*);
- Otter (*Lutra lutra*);
- Reptiles (all species);

UK Biodiversity Action Plan (UKBAP) Priority Species

3.6 The UKBAP priority species which may potentially use the survey area, based on the results of the desktop study are:

- Mammals – Bats*, Badgers*, Hedgehog, Otter*, Water Vole*
- Birds – Song Thrush, Sky Lark etc.
- Amphibians – Great Crested Newts*, Common Toad

** These species and/or their habitats are also statutorily protected*

Local Biodiversity Action Plan (LBAP)

3.7 The Wrexham Biodiversity Action Plan (BAP) lists key local species and habitats considered to be rare or declining in the area. Some of these species and habitats may also be of national concern.

3.8 Although local BAP documents have no legal status the Local Planning Authority (LPA) and NRW will expect the listed species and habitats to be taken into account in the overall layout and landscape strategy for the development.

3.9 The species of local concern which may potentially utilise the survey area based on the results of the desktop study are:

- Mammals – Badger*, Otter*, Lesser Horseshoe bat*, Hedgehog;
- Amphibians – Great Crested Newts*;
- Birds – Barn Owl*;
- Reptiles – All species*;
- Invertebrates – Dingy Skipper, Grizzled Skipper.

** These species and/or their habitats are also statutorily protected*



4.0 PLANNING CONTEXT

Planning Policy Wales (Edition 3, July 2010)

- 4.1 This document contains current land use planning policy for Wales. It provides the policy framework for the effective preparation of local planning authorities' development plans. This is supplemented by 21 topic based Technical Advice Notes (TANs). Procedural guidance is given in Welsh Office / National Assembly for Wales / Welsh Assembly Government circulars
- 4.2 Technical Advice Note 5 provides advice about how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. This guidance note should be read in conjunction with *Planning Policy Wales (2002)*, in particular with Chapter 5 *Conserving and Improving the Natural Heritage and Coast* which sets out the Assembly Government's objectives for the natural heritage and the land use planning policies which support these.
- 4.3 This TAN brings together advice on sources of legislation relevant to various nature conservation topics which may be encountered by local planning authorities. Chapter 2 sets out the key principles of planning for nature conservation. Chapter 3 provides advice about the preparation and review of development plans, including the relevant statutory requirements. Chapter 4 addresses nature conservation in development control procedures. Chapter 5 deals with the conservation of internationally and nationally designated sites and habitats and also covers local sites. Chapter 6 deals with the conservation of protected and priority species.

5.0 LEGISLATIVE CONTEXT

- 5.1 This is a brief summary of the ecological legislative context in Wales. This is general advice only and does not relate specifically to the site being assessed.

Ecological Assessments

- 5.2 Ecological assessments have now become an important part of the planning process. This initial assessment is used as a means of identifying any specific interests of the site in question which are in turn used to assess suitability for protected species and to make recommendations for further survey work and mitigation.

Statutory Designated Sites

- 5.3 Sites with Statutory designations receive varying degrees of legal protection under UK law and European Directives. A number of statutory designations are used for sites of high conservation value in the UK dependent on the importance of the site at a local, regional, national and international level. These designations are:
 - Special Area of Conservation (SACs)
SACs are sites of European importance for nature conservation. These receive legal protection under the EC Habitats Directive (1992) which was incorporated into UK legislation through the Conservation (Natural Habitats, &c) Regulations 1994. In the UK all SACs are also designated as SSSIs.



- **Special Protection Areas (SPAs)**
SPAs are sites of European importance for birdlife as designated under the Birds Directive. As with SACs all SPAs in the UK will also be designated as SSSIs.
- **Ramsar Sites**
These sites are wetlands of international importance designated under the Ramsar Convention 1971. In most cases these sites are also designated as SPAs or Sites of Special Scientific Interest (SSSI) and receive legal protection in the UK through these designations.
- **Sites of Special Scientific Interest (SSSI)**
SSSIs are UK sites of national importance for nature conservation. These sites may be designated as a result of the habitats present or for the presence of rare species or species assemblages. SSSIs receive some legal protection through the Wildlife and Countryside Act 1981. This protection was recently extended through the Countryside and Rights of Way (CROW) Act 2000.
- **National Nature Reserves (NNR)**
NNRs are nationally important nature reserves designated by CCW under the Wildlife and Countryside Act 1981. These sites will either be managed by CCW or an approved body and are often designated as SSSIs.
- **Local Nature Reserves (LNR)**
Local Nature Reserve is a statutory designation made by local authorities under the Section 21 of the National Parks and Access to Countryside Act 1949. These sites may or may not be SSSIs.

Non-Statutory Designated Sites

- 5.4 Non-statutory sites are afforded no statutory legal protection but are in most cases recognised by local planning authorities and statutory agencies as being of local conservation value. The protection of these sites is usually afforded through Local Plan Policies (county, district and Unitary Development Plans) and these sites will in most cases be taken into account as a material consideration by the local authority when deciding planning applications. These sites are designated by the local authority (usually in consultation with the local Wildlife Trust and other agencies).

Protected Species and their Habitats

- 5.5 In the majority of cases relevant to planning applications protected species are those listed in Schedules 1, 5 and 8 of the Wildlife and Countryside Act (as amended), the Protection of Badgers Act 1992 and the Habitats & Species Regulations 2010. The extent of legal protection varies between species, as do the implications for developments where these species are to be affected.



5.6 Great Crested Newts

Great Crested Newts (*Triturus cristatus*) are protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2010 and Section 9 of the Wildlife and Countryside Act 1981 (as amended), being listed in Schedule 5 of the act. Under the legislation it is an offence to:

- Intentionally kill, take or injure a great crested newt;
- Damage, destroy or obstruct a place a great crested newt uses for breeding, resting, shelter or protection or to disturb a great crested newt in such a place.
- Possess or control a great crested newt alive or dead, or any part of them, or anything derived from them.
- Sell, offer for sale, advertise for sale or offer to buy a great crested newt, or a part of them or anything derived from them.
- Deliberately disturb or deliberately take or destroy the eggs of a great crested newt.

Offences under Section 9 carry a maximum penalty of a fine up to £5000, imprisonment for up to six months, or both, for each animal in respect of which an offence is committed.

Licenses can be issued in order to allow activities that would constitute an offence under the legislation. Licenses can be issued for specific purposes including scientific study, photography, conservation management and development.

It is important to identify the presence of great crested newts as early as possible in a development so that the legal obligations regarding this species can be observed. If surveys identify the presence of great crested newts on site a mitigation scheme must be developed in consultation with the local NRW team. This mitigation scheme must minimise direct threats to newts and compensate for any habitat loss. A licence issued by the Welsh Assembly is required before the mitigation scheme can be legally implemented. Mitigation licence applications require full Method Statements and a Reasoned Statement of Application. The method statement contains details of the proposed mitigation works whilst the Reasoned Statement must provide justification as to how the proposed development meets the requirements of the legislation.

5.7 Bats

All species of bat and their breeding sites or resting places (roosts) are protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2010 and Section 9 of the Wildlife and Countryside Act 1981 (as amended). Under the legislation it is an offence to:

- intentionally kill, injure or handle a bat;
- to possess a bat (whether live or dead)
- disturb a roosting bat;
- sell or offer a bat for sale without a licence;
- damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.

The potential fine for each offence is £5,000. If more than one bat is involved, the fine is £5,000 per bat. An offender can also be imprisoned for up to six months.

Where bats are found to occur on a development site, and there is considered to be a reasonable possibility that a roost may be damaged or destroyed or that bats using a roost will be disturbed, a licence must be obtained from NRW.



5.8 Badgers

Badgers (*Meles meles*) and their habitat are protected under The Protection of Badgers Act 1992 and are also included on Schedule 6 of the Wildlife and Countryside Act 1981, and Appendix III of the Bern Convention. The legislation affords badgers protection against deliberate harm or injury making it an offence to:

- wilfully kill, injure, take, possess or cruelly ill-treat a badger (or attempt to do so)
- to interfere with a sett by damaging or destroying it
- to obstruct access to, or entrance of, a badger sett
- to disturb a badger whilst it is occupying a sett

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each illegal sett interference, badger injury or death.

Works that disturb badgers whilst they are occupying a sett are illegal without a licence. Disturbance can occur even without direct interference or damage to the sett in question. In general, the following activities are likely to require a licence:

- Use of heavy machinery or significant earth moving within 30m of a sett
- Use of lighter machinery (usually any wheeled vehicles) within 20m of a sett
- Any digging, chain saw use or scrub clearance within 10m of a sett

5.9 Reptiles

All species of British reptile are protected against intentional killing, injury or sale under the Wildlife and Countryside Act 1981 (as amended). The Sand Lizard and the Smooth Snake are afforded a higher degree of protection under Regulation 41 of The Conservation of Habitats and Species Regulations 2010 making it an offence to:

- Intentionally kill, take or injure these species of reptile;
- Damage, destroy or obstruct a place a these species use for breeding, resting, shelter or protection or to disturb these species in such a place;
- Possess or control these species alive or dead, or any part of them, or anything derived from them;
- Sell, offer for sale, advertise for sale or offer to these species, or a part of them or anything derived from them;
- Deliberately disturb or deliberately take or destroy the eggs of these species.

The distribution of Smooth Snakes and Sand Lizards is limited to heathland habitats in Surrey, Dorset, Hampshire and Sussex. The Sand Lizard is also known to occur on sand dune habitats in Merseyside and has recently been introduced to some areas of North Wales.

Licenses can be issued in order to allow activities that would constitute an offence under the legislation. Licenses can be issued for specific purposes including scientific study, photography, conservation management and development.

In England and Wales a development license must be obtained from Natural England or NRW before undertaking any works that will affect Sand Lizards or Smooth Snakes or their habitat. A license is not required to carry out surveys or mitigation for other reptile species.



5.10 Otters

The Eurasian Otter is protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2010 and Section 9 of the Wildlife and Countryside Act 1981 (as amended), being listed in Schedule 5 of the act. Under the legislation it is an offence to:

- Deliberately, capture, injure or kill an Otter;
- Damage, destroy or obstruct their breeding or resting places;
- Disturb otters in their breeding or resting places.

Offences under Section 9 carry a maximum penalty of a fine up to £5000, imprisonment for up to six months, or both, for each animal in respect of which an offence is committed.

There is, however, provision within the legislation to kill, take, disturb or possess otters or to use prohibited methods to kill or take under a licence in certain defined circumstances, if the issue cannot be resolved by any alternative means. Licenses can be granted for a variety of purposes, including development.

5.11 Water Vole

Water Voles and their habitats are afforded protection under Section 9 of the Wildlife & Countryside Act 1981 (as amended). Under the legislation it is an offence to:

- Intentionally kill, injure or take (capture) a water vole;
- Possess or control a live or dead water vole, or any part of a water vole or anything derived from a water vole;
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place which a water vole uses for shelter or protection
- Intentionally or recklessly disturb a water vole while it is occupying a structure or place which it uses for shelter or protection;
- Sell, offer or expose for sale, or have in one's possession or transport for the purpose of sale, any live or dead water voles, or any part of a water vole or anything derived from a water vole;
- Publish any advertisement, or cause any advertisement to be published, which is likely to be understood as conveying that a person buys or sells, or intends to buy or sell, any of the above things.

Offences under Section 9 carry a maximum penalty of a fine up to £5000, imprisonment for up to six months, or both, for each animal in respect of which an offence is committed.

There is no provision under the Wildlife and Countryside Act 1981 for licences to be issued for the purpose of development



5.12 Birds

Section 1 of the Wildlife and Countryside act 1981 makes it an offence to intentionally kill, injure, handle or remove any wild bird (with the exception of some pest species), to take or damage a nest whilst it is in use or being built and to take or destroy eggs.

Species listed in Schedule 1 of the Act (see Table 1), including the Little Ringed Plover, Barn Owl and Kingfisher, are afforded an even higher level of protection. In addition to the offence of taking, damaging or destroying nests or eggs it is also an offence to disturb Schedule 1 species whilst they are building or sitting on nests.

Whilst it is not an offence to disturb non-Schedule 1 species whilst they are building or sitting on a nest an offence may occur if the bird is permanently driven away from its nesting site by prolonged disturbance which leads to the failure of eggs or the death of young.

Surveys for the presence of breeding birds are required if any nesting habitat is to be removed during the breeding season (March to August inclusive).

Invasive Plant Species

- 5.13 Under Section 14 (2) of the Wildlife and Countryside Act (1981) it is illegal to spread the invasive non-native plants Japanese Knotweed (*Fallopia japonica*), Himalayan Balsam (*Impatiens glandulifera*) and Giant Hogweed (*Heracleum mantegazzianum*). At present no requirement exists to eradicate these plants from sites where they are already established
- 5.14 Environment Agency guidance also exists for the aquatic weeds Australian swap stonecrop (*Crassula helmsii*), Floating pennywort (*Hydrocotyle ranunculoides*) and Parrot's feather (*Myriophyllum aquaticum*). Although no legal obligation exists it is considered good practice to avoid spreading these invasive plants when working in infested areas.



6.0 HABITAT SURVEY

Extended Phase One Methods

- 6.1 An extended phase one habitat survey of the site was undertaken by Joe Whittick BSc (Hons.) MCIEEM on the 24th July 2014.
- 6.2 The extended phase one habitat survey is a standard method of survey widely used as the basis of ecological assessments (JNCC, 1993). The phase one survey covers the footprint of the proposed development and descriptions of the immediate surrounding area (up to 100 metres). A habitat map is prepared to show the locations and extent of habitats. Detailed descriptions of important plant communities, other valuable ecological components (e.g. protected species potential) and invasive plant species are provided as target notes.
- 6.3 The phase one habitat survey is not intended to provide a comprehensive list of species. Plant species lists have been compiled with the aim of characterising habitats in order to assess their importance for nature conservation.
- 6.4 Incidental observations of birds and mammals were also made during the phase one habitat survey.

Results

- 6.5 The habitat survey is illustrated on Drawing D/JWE/1494/002 (Appendix 1). Target Notes are presented in Appendix 2.
- 6.6 The following habitats were recorded within the survey area and adjacent land:
 - Arable land
 - Semi-improved grassland
 - Amenity grassland
 - Tall ruderal herbs
 - Broad-leaved semi-natural woodland
 - Scattered broad-leaved trees
 - Hedgerows
 - Ditches



6.7 Habitats within the proposed development site and wider survey area:

- Arable land
The survey area comprises three arable fields (Fields 1 to 3 from east to west) currently in use for cereal crops (see photographs 1 to 3, Appendix 3).
- Semi-improved grassland
Small semi-improved grassland field margins are present around the perimeter of the arable fields (see photograph 4, Appendix 3).
- Amenity grassland
An amenity grassland playing field is located outside of the northern site boundary.
- Tall ruderal herbs
Small areas of tall herbs are located at the boundaries of the arable fields.
- Broad-leaved semi-natural woodland
Two small areas of broad-leaved woodland are located on the southern site boundary adjacent to Minera Hall Road (see photographs 5 and 6, Appendix 3). Species in these woodland areas include horse chestnut, ash, holly, elder and hawthorn with ground flora including ivy, cleavers and common nettle.
- Scattered broad-leaved trees
Occasional mature and semi-mature oak, sycamore and ash trees are located in the hedgerows field boundaries within the survey area (see photographs 7 and 8, Appendix 3).
- Hedgerows
Mature hedgerows are located between fields 1, 2 and 3 and on the eastern boundary of field 3. Mature hedgerows are also located on the southern site boundary.

Hedgerow 1 is located between fields 1 and 2 (see photograph 9, Appendix 3). This hedgerow is a dense scrubby hedge dominated by blackthorn with hawthorn, dog-rose, sycamore and ash.

Hedgerow 2 is located between fields 2 and 3 (see photograph 10, Appendix 3). The hedgerow contains hawthorn, blackthorn and ash with occasional standard oak and sycamore trees.

Hedgerow 3 is located on the eastern boundary of field 3 (see photograph 11, Appendix 3). The hedgerow contains hawthorn, blackthorn, holly and ash with occasional standard oak trees.

Hedgerow 4 is a small section of hedgerow located on the southern boundary of field 1.

Hedgerow 5 is a mature hedgerow located on the southern boundary of fields 2 and 3 adjacent to Minera Hall Road (see photograph 12, Appendix 3). This hedgerow is predominantly hawthorn with ash and sycamore.
- Ditches
A small ditch is located on the boundary between fields 2 and 3 (see photograph 13, Appendix 3). The ditch is heavily overgrown and holds only a small amount of water.



6.8 Extended Phase One Habitat Survey Overview

- Great crested newts – No ponds are located within the survey area and no ponds are shown on OS maps within 250 metres of the site boundary.
- Bats – No buildings are located on site

All trees on site were assessed for their potential to support roosting bats including:

- o Features suitable as roosting sites (natural holes, woodpecker holes, cracks/splits in major limbs, loose bark, dense ivy, hollows, bird and bat boxes);
- o Signs indicating possible use by bats (scratches around entry points, staining around entry points, bat droppings, smell of bats, smoothing of surfaces around cavity).

Trees were categorised for their potential to support roosting bats using the Bat Conservation Trust (BCT, 2012) survey guidelines (see Appendix 5 for the definition of the categories used). The majority of the trees on site were classed as Category 3 in terms of their roosting potential (ie. no/negligible potential to support bats). The exceptions are a number of oak, ash and horse chestnut trees in the woodland areas to the south and in the hedgerow field boundaries which were classed as Category 1 (ie. good potential to support bats) or Category 2 in terms of their roosting potential. Some of these trees have splits/cavities which could be used by roosting bats whilst others have a covering of dense ivy. Category 1 and Category 2 trees are marked as C1 and C2 respectively on drawing number D/JWE/1494/002 (Appendix 1).

Bats use linear habitat features, such as lines of trees and hedgerows, as navigational markers allowing them to commute between roosting and foraging sites. The mature hedgerows and associated areas of woodland at the field boundaries could be used by bats in this way.

- Badgers – No badger setts, or other evidence of badger activity (latrines etc.), were identified on site or within 30 metres of the site boundary. Dense scrub and trees did however restrict access to some parts of the site. Hedgerow 1 is particularly wide and dense which restricted access for survey.
- Reptiles – Suitable foraging and refuge opportunities for common reptile species exist at the field boundaries on site. A full reptile survey was undertaken in September/October 2014 and no evidence of reptiles was identified (see Appendix 6).
- Water Voles – The ditch which separates fields 2 and 3 is heavily overgrown and is very shallow and therefore provides sub-optimum habitat for water voles. The length of the ditch was walked during the phase one survey and no evidence of water voles was identified, at this time of year visibility along the ditch is however limited due to the dense vegetation.



- Otters – No habitats with potential to support otters are located on or adjacent to the site.
- Birds – Birds are likely to nest in the trees and hedgerows located on and adjacent to the survey area. Ground nesting species, such as lapwing, could also nest in the arable fields.
- Invasive Species – No Japanese Knotweed, Himalayan Balsam or Giant Hogweed were identified on site during the survey. Dense vegetation did however restrict the survey in some areas.

6.9 **Other Observations**

The dense shrub areas on site offer suitable refuge opportunities for Hedgehog, a Biodiversity Action Plan (BAP) species.



7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Protected Sites

The Ruabon Mountain and Minera Site of Special Scientific Interest (SSSI) is located approximately 900 metres south-west of the survey area. No impacts on this designated area are predicted as a result of the proposals given its distance from the site.

No significant impacts on any Wildlife Sites are predicted.

7.2 Habitats

No statutorily protected habitats are present on site and all plant species identified within the survey area are considered to be common at local and regional levels. The survey area comprises predominantly arable land with limited conservation value. The features of interest on site are primarily located towards the site boundaries and include the arable field margins (although these are relatively small), the mature hedgerows and the associated mature trees and the small areas of woodland to the south. Hedgerows are a UK and local Biodiversity Action Plan (BAP) habitat.

Any proposals for the site should aim to protect, and where possible enhance, existing biodiversity interest. The mature hedgerows at the site boundaries have significant ecological value as both habitats for wildlife and as wildlife corridors. Hedgerows should wherever possible be retained as part of any proposals and should also be protected during any site works using temporary fencing. New native tree and shrub planting, particularly at the site boundaries and fronting roads, would also serve to improve the wildlife corridor function of the site.

The mature trees and woodland areas at the site boundaries and in the hedgerow field boundaries have significant ecological value, including as nesting sites for birds and potentially as roosting sites for bats. These existing mature trees and woodland areas should be retained wherever possible and protected throughout any construction works on site. Any tree loss should be compensated for with new native tree planting.

7.3 Great Crested Newts

No ponds are located within the survey area and no ponds are shown on OS maps within 250 metres of the site boundary. No great crested newt issues are thought to exist for the proposals.

7.4 Bats

A number of mature trees in the woodland areas and hedgerows on site were classed as Category 1 in terms of their roosting potential (ie good potential for roosting bats). These trees should if possible be retained as part of the proposals. If this is not possible, further dusk/dawn bat activity surveys are thought to be required in order to confirm the presence/absence of roosting bats (surveys from May to August only). Further trees were also classed as Category 2 in terms of their roosting potential. Works to these trees should be undertaken using Reasonable Avoidance Measures (RAMs) for bats. All works should cease and appropriate advice should be sought if any bats are found.

Bats use linear habitat features, such as lines of trees and hedgerows, as navigational markers allowing them to commute between roosting and foraging sites. The mature hedgerows and associated woodland areas on site could be used by bats in this way. These features of the site should be retained and enhanced with additional planting wherever possible. If significant hedgerow removals are to take place then additional bat activity surveys of the site should be undertaken between May and August in order to identify any significant bat commuting routes and foraging areas and to ensure that



these are adequately mitigated for. To further minimise impacts on foraging and commuting bats new external lighting as part of any proposals should be kept to the minimum necessary and light should be directed towards the centre of the site and away from potential bat commuting routes at the site boundaries.

7.5 Badgers

No badger setts, or other evidence of badger activity, were identified on site during the phase one survey. Dense vegetation did however restrict access to some parts of the site, particularly along hedgerow 1. Whilst the presence of badgers is considered to be unlikely, it is however recommended that as a precaution any clearance of dense vegetation is undertaken with care and with badgers in mind. If any large mammal holes are identified then all works should cease and an experienced badger ecologist should be contacted for further guidance. A re-check of the site by a suitably experienced person for signs of badger activity immediately prior to the start of any construction works is also advised.

7.6 Reptiles

The proposed development site contains areas of potential foraging and refuge habitat for common reptiles, primarily associated with arable field margins. A full reptile survey was however undertaken in September/October 2014 and no evidence of reptiles was identified. No reptile issues are thought to exist for the proposals.

7.7 Water Voles

The ditch which separates fields 2 and 3 is heavily overgrown and is very shallow and therefore provides sub-optimum habitat for water voles. The length of the ditch was walked during the phase one survey and no evidence of water voles was identified, at this time of year visibility along the ditch is however limited due to the dense vegetation. Whilst the presence of water voles is considered unlikely, a further survey in autumn (October), when vegetation will have died back, is recommended.

7.8 Otters

No habitats with potential to support otters are located on or adjacent to the site. No otter issues are thought to exist for the proposals.

7.9 Birds

Birds could nest in the trees, hedgerows and woodland areas on site and these habitats should wherever possible be retained as part of any proposals. Where removals are unavoidable, works to remove/manage potential nesting habitat should where possible be undertaken outside of the bird nesting season (the nesting season runs from March to August inclusive). If clearance/management works are to take place during the nesting season a recheck of the site should be undertaken by an experienced surveyor immediately prior to the start of works. If breeding birds are found during the survey the nest should not be disturbed and works should be delayed until nesting is complete and young birds have fledged. The installation of a number of bird boxes onto retained trees or new buildings would be desirable as part of the proposals in order to compensate for the loss of nesting sites as a result of tree/hedgerow removal.

Ground nesting species, such as lapwing, could nest in the arable fields. A check for ground nesting birds should be undertaken if works on site will commence during the nesting season.



7.10 Hedgehog

Any clearance of potential hedgehog refuge areas (for example dense shrubs, wood piles) should be undertaken with care and preferably by hand in order to avoid harm to any hedgehogs which may be present. Where possible, clearance of potential refuge areas should also be avoided during the winter months when hedgehogs may be hibernating.

7.11 Invasive Species

No Japanese Knotweed, Himalayan Balsam or Giant Hogweed were identified on site during the phase one survey. The survey was however restricted by dense vegetation in some areas. As a precaution, any clearance of dense vegetation from the site should be undertaken with care as stands of invasive species could be concealed within these areas.

THESE SURVEY RESULTS ARE VALID FOR UP TO 1 YEAR AFTER WHICH RE-SURVEYS ARE RECOMMENDED

8.0 REFERENCES

Wrexham Biodiversity Action Plan (BAP)

NATURE CONSERVANCY COUNCIL (1990) Handbook for Phase 1 habitat survey. NCC. Peterborough.

STACE, C. A. (1997) *Flora of the British Isles, 2nd edition*. Cambridge University Press

ENGLISH NATURE (2001) *Great crested newt mitigation guidelines*. English Nature, Peterborough.

Mitchell-Jones, A.J, & McLeish, A.P. Ed. 2004. *Bat Workers Manual*

ENGLISH NATURE 2004. *Bat Mitigation Guidelines*.

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



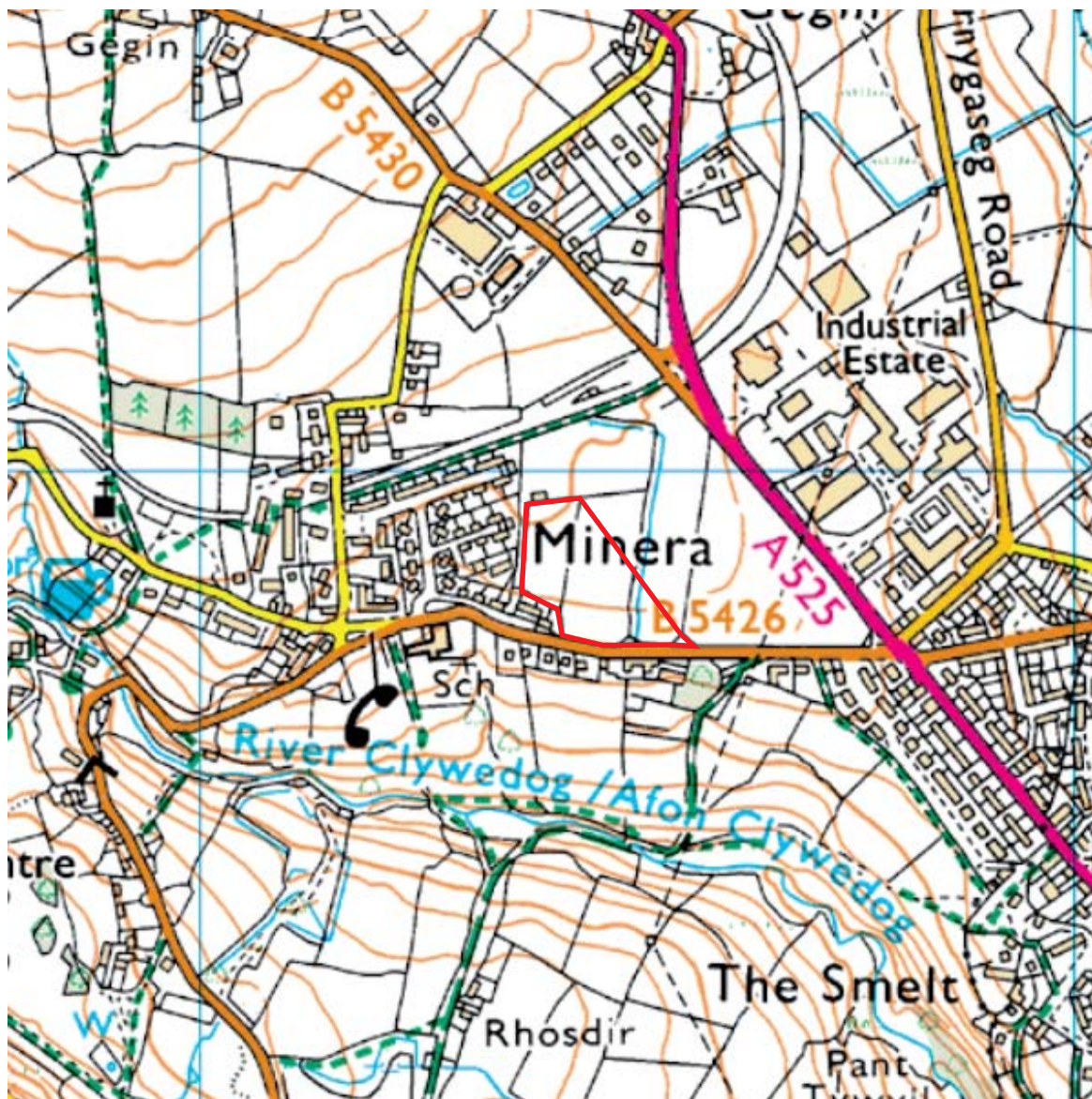
APPENDIX 1

Drawings:

Site Location Plan - D/JWE/1494/001

Extended Phase One Habitat Plan - D/JWE/1494/002





= Site location



J W ECOLOGICAL LTD

TITLE: Site Location Plan

SITE: Land off Minera Hall Road

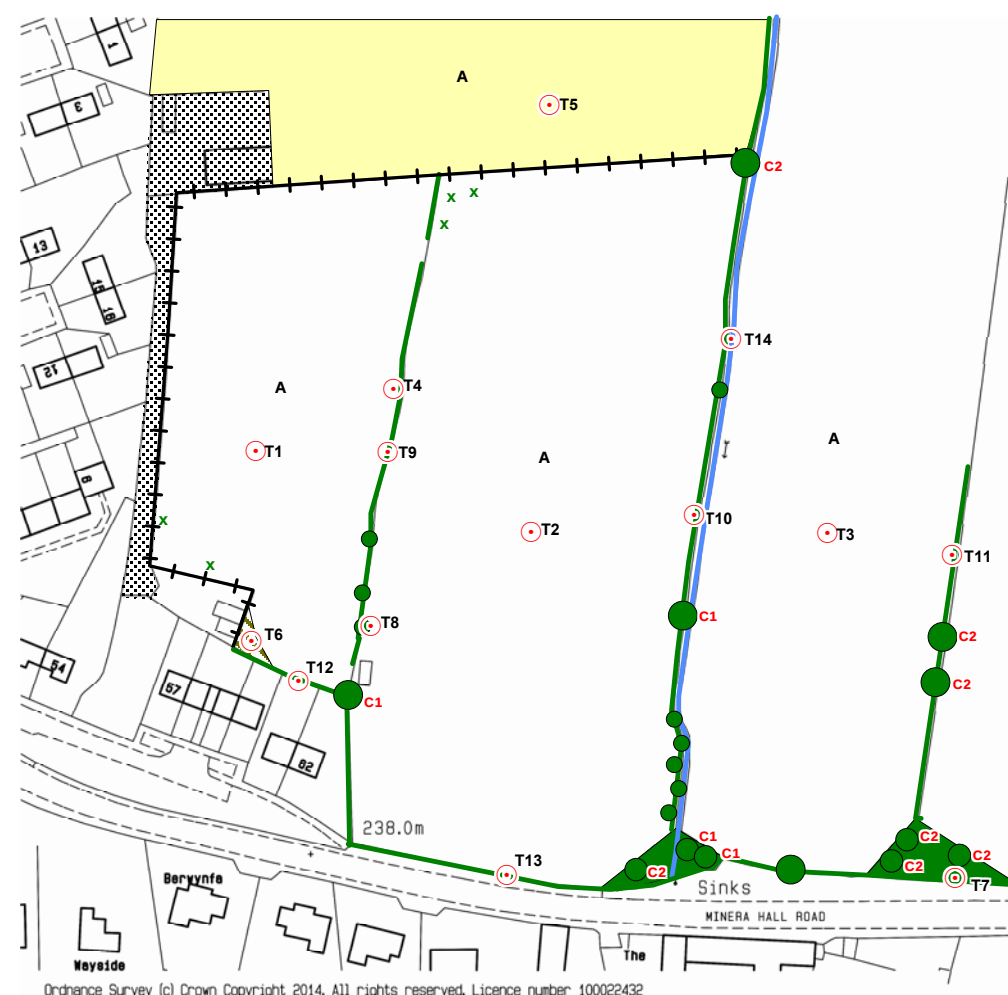
NGR: SJ 27429 51885

DRAWING NUMBER: D/JWE/1494/001

Site: Land off Minera Hall Road

Title: Extended Phase One Survey Plan

KEY:



- | | |
|---|------------------------------------|
|  | Bare ground |
|  | Arable land |
|  | Amenity grassland |
|  | Broad-leaved semi-natural woodland |
|  | Scattered broad-leaved trees |
|  | Tall ruderal herbs |
|  | Scattered scrub |

 Hedgerow

 Fence

— Ditch

Bat Survey of Trees:

C1 Category 1 bat trees

C1 Category 1 bat trees
C2 Category 2 bat trees

Target Notes (See Appendix 2 of report)

GRID REFERENCE:

SJ 27429 51885

	SCALE:
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1:1000

DRAWN BY:

JW

	CHECKED BY:
--	--------------------

JM

DATE:

06/08/14

DRAWING NUMBER:

D/JWE/1494/002

	ISSUE:
--	---------------

A

THIS PLAN IS ISSUED BY J W ECOLOGICAL LIMITED SUBJECT TO THE
CONDITION THAT IT IS NOT COPIED EITHER IN WHOLE OR IN PART
OR DISCLOSED TO THIRD PARTIES UNLESS PRIOR WRITTEN
AUTHORISATION IS GIVEN.

APPENDIX 2

Target Notes



The target notes listed below relate to drawing number D/JWE/1494/002 (Appendix 1):

Target Note 1 (T1)

Field 1. Arable cereal crop.

Target Note 2 (T2)

Field 2. Arable cereal crop.

Target Note 3 (T3)

Field 3. Arable cereal crop.

Target Note 4 (T4)

Small semi-improved grassland field margins.

Target Note 5 (T5)

Amenity grassland playing field located outside of the northern site boundary.

Target Note 6 (T6)

Small areas of tall herbs located at the boundaries of the arable fields.

Target Note 7 (T7)

Areas of broad-leaved woodland located on the southern site boundary adjacent to Minera Hall Road. Species in these woodland areas include horse chestnut, ash, holly, elder and hawthorn with ground flora including ivy, cleavers and common nettle.

Target Note 8 (T8)

Occasional mature and semi-mature oak, sycamore and ash trees located in the hedgerows field boundaries within the survey area.

Target Note 9 (T9)

Hedgerow 1, located between fields 1 and 2. This hedgerow is a dense scrubby hedge dominated by blackthorn with hawthorn, dog-rose, sycamore and ash.

Target Note 10 (T10)

Hedgerow 2, located between fields 2 and 3. The hedgerow contains hawthorn, blackthorn and ash with occasional standard oak and sycamore trees.

Target Note 11 (T11)

Hedgerow 3, located on the eastern boundary of field 3. The hedgerow contains hawthorn, blackthorn, holly and ash with occasional standard oak trees.

Target Note 12 (T12)

Hedgerow 4. Small section of hedgerow located on the southern boundary of field 1.



Target Note 13 (T13)

Hedgerow 5. Mature hedgerow located on the southern boundary of fields 2 and 3 adjacent to Minera Hall Road. This hedgerow is predominantly hawthorn with ash and sycamore.

Target Note 14 (T14)

Small ditch located on the boundary between fields 2 and 3. The ditch is heavily overgrown and holds only a small amount of water.



APPENDIX 3

Photographs





Photograph 1 – Field 1



Photograph 2 – Field 2



Photograph 3 – Field 3



**Photograph 4 – Semi-improved
grassland at field margins**





Photograph 5 – Eastern woodland area on southern boundary



Photograph 6 – Western woodland area on southern boundary



Photograph 7 – Mature trees in hedgerow field boundaries



Photograph 8 – Mature trees in hedgerow field boundaries





Photograph 9 – Hedgerow 1



Photograph 10 – Hedgerow 2



Photograph 11 – Hedgerow 3



Photograph 12 – Hedgerow 5





**Photograph 13 – Ditch between fields
2 and 3**



APPENDIX 4

Record search results





Please read **Important Issues** and **Notes** before interpreting the following information.

Our Ref.	Client Name	Date Run	Your Ref.
E03899	J W Ecological Ltd	11/06/2014	1494

Site Name	Grid Reference
Minera Hall Road	SJ2742951885

Category 1 Species (Species with European and/or UK Legal Protection, Section 42 [NERC] Species or UK BAP Priority Species) within 1000m - 66 records										
Taxon Name	Grid Reference	Date	Recorder(s)	Abundance	Record Type	Site Name	Comments	Dataset ID	Lists	V
Erinaceus europaeus (Hedgehog/Draenog)	SJ274522 (Selected from Interactive Map)	11/04/2012	Lizzy Webster	1	Dead on road	B5430	Time of sighting: 9am.	D1383/001/01 (3664510)	S42, UKBAP, LBAP[ANG, CON, FLI, GWY]	4
Chiroptera (Bat Species/Ystlum)	SJ2752	2 records, both on 31/08/1999	Anon			Site Name Withheld		D1486/001/01	WCA5	3
Meles meles (Badger/Mochyn Daear)	SJ2751 (Approximate)	04/06/2011	Hazel Richards	1	Live Sighting	Site Name Withheld	Comments Withheld	D1117/001/01 (2937983)	BA, LBAP[CON, DEN, FLI, WRE]	4
Erinaceus europaeus (Hedgehog/Draenog)	SJ272523 (Selected from Interactive Map)	10/05/2011	Lizzy Webster	1	Dead on road	Old Road Bwlchgwyn		D1383/001/01 (2776247)	S42, UKBAP, LBAP[ANG, CON, FLI, GWY]	4
Coenonympha pamphilus (Small Heath/Gweirlöyn Bach y Waun)	SJ272511	2 records, both on 19/07/2006	Rob W Whitehead	5 Adult, 5 Adult	Daytime observation	Minera Lead Mines CP	Daytime observation. Substrate:Unknown	D1373/001/02 D1373/001/03	S42, UKBAP, LBAP[GWY]	3
Hipparchia semele (Grayling/Gweirlöyn Llwyd)	SJ272511	4 records, between 05/08/2001 and 19/07/2006	Rob W Whitehead	12, 19 Adult, 12, 19 Adult	Field record / observation; Daytime observation	Minera Lead Mines CP	Field record / observation.; Daytime observation.	D1373/001/03 D1373/001/02	S42, UKBAP, LBAP[GWY]	3
Pipistrellus pipistrellus (Common Pipistrelle/Ystlum Lleiaf Cyffredin)	SJ2651	06/06/1993	Anon	23		Site Name Withheld		D1486/001/01 (4095344)	Bern, Bonn, EPS, HDir, S42, WCA5, LBAP[ANG, CON, DEN, FLI, GWY, SNP]	3
Coenonympha pamphilus (Small Heath/Gweirlöyn Bach y Waun)	SJ269512	3 records, all on 19/06/2002	Rob W Whitehead; Rob W. Whitehead	2 Adult, 2, 2 Adult	Field record / observation	Minera Lead Mines CP	Field record / observation. Substrate:Unknown	D1373/001/02 D0127/001/02 D1373/001/03	S42, UKBAP, LBAP[GWY]	3
Hipparchia semele (Grayling/Gweirlöyn Llwyd)	SJ269512 (Centroid)	15/07/1995	Rob W. Whitehead	10	Field record / observation	Minera Lead Mines CP		D0127/001/02 (522572)	S42, UKBAP, LBAP[GWY]	3
Coenonympha pamphilus (Small Heath/Gweirlöyn Bach y Waun)	SJ276510	4 records, between 17/07/2001 and 19/07/2006	Dr Jean A. Green; Rob W Whitehead	2, 24 Adult, 2, 24 Adult	Field record / observation; Daytime observation	New Brighton - Lead Mines CP	Field record / observation.; Daytime observation. Substrate:Unknown	D1373/001/02 D1373/001/03	S42, UKBAP, LBAP[GWY]	3
Hipparchia semele (Grayling/Gweirlöyn Llwyd)	SJ276510	4 records, all on 17/07/2001	Dr Jean A. Green; Rob W Whitehead	10, 16 Adult, 16 Adult, 1	Daytime observation; Field record / observation	New Brighton - Lead Mines CP	Field record / observation.; Daytime observation.	D1373/001/03 D1373/001/02	S42, UKBAP, LBAP[GWY]	3
Anguis fragilis (Slow-worm/Neidr Ddefaid)	SJ276509	1998	Alastair Thompson	1 adult		Minera Country Park	Rough grassland. Habitat: Grassland.	D0035/002/01 (2502083)	S42, UKBAP, WCA5, LBAP[ANG, CON, DEN, FLI, GWY, SNP]	4
Anguis fragilis (Slow-worm/Neidr Ddefaid)	SJ276509	1998	Anon			Minera Country Park		D1076/001/01 (450902)	S42, UKBAP, WCA5, LBAP[ANG, CON, DEN, FLI, GWY, SNP]	3
Zootoca vivipara (Common Lizard/Madfall)	SJ276509	1998	Alastair Thompson	1 adult		Minera Country Park	Rough grassland. Habitat: Grassland.	D0035/002/01 (2502677)	S42, UKBAP, WCA5, LBAP[ANG, CON, DEN, FLI, GWY, SNP]	4
Zootoca vivipara (Common Lizard/Madfall)	SJ276509	1998	Anon			Minera Country Park		D1076/001/01 (450717)	S42, UKBAP, WCA5, LBAP[ANG, CON, DEN, FLI, GWY, SNP]	3
Pipistrellus pipistrellus (Common Pipistrelle/Ystlum Lleiaf Cyffredin)	SJ2851	16/07/1990	Anon			Site Name Withheld		D1486/001/01 (4095357)	Bern, Bonn, EPS, HDir, S42, WCA5, LBAP[ANG, CON, DEN, FLI, GWY, SNP]	3
Triturus cristatus (Great Crested Newt/Madfall Ddwr Gribog)	SJ26225148 (Estimated from Map)	1993	Clwyd Reptile and Amphibian Group	P		Ruabon/Llantysilio Mountains & Minera - ?		D1125/001/03 (1857202)	Bern, EPS, HDir, S42, UKBAP, WCA5, LBAP[ANG, CON, DEN, FLI, SNP, WRE]	3
Vipera berus (Adder/Gwiber)	SJ262526	1990	Anon			Y Gors, Gwynfryn		D1076/001/01 (451118)	S42, UKBAP, WCA5, LBAP[ANG, CON, DEN, FLI, GWY, SNP]	3

Taxon Name	Grid Reference	Date	Recorder(s)	Abundance	Record Type	Site Name	Comments	Dataset ID	Lists	V
Vipera berus (Adder/Gwiber)	SJ262526	1990	Mark Lee			Y Gors, Gwynfryn	Nature reserve, Gwynfryn CC.	D0035/002/01 (2502306)	S42, UKBAP, WCA5, LBAP[ANG, CON, DEN, FLI, GWY, SNP]	4
Triturus cristatus (Great Crested Newt/Madfall Ddwr Gribog)	SJ27775333	14/05/1992	Anon - Herpetofauna Consultants International	P		Pentre-Saeson		D1125/001/03 (1857549)	Bern, EPS, HDir, S42, UKBAP, WCA5, LBAP[ANG, CON, DEN, FLI, SNP, WRE]	3
Rhinolophus hipposideros (Lesser Horseshoe Bat/Ystlum Pedol Lleiaf)	SJ2551 (Supplied by Original Recorder (Unchecked))	3 records, between 10/12/2006 and 21/01/2007	Keith Davies	1, 1, 2	Bat Roost	Site Name Withheld		D0308/046/01	Bern, Bonn, EPS, HDir, S42, UKBAP, WCA5, LBAP[ANG, CON, DEN, FLI, GWY, SNP, WRE]	1
Rhinolophus hipposideros (Lesser Horseshoe Bat/Ystlum Pedol Lleiaf)	SJ2850	3 records, between 10/06/1999 and 21/01/2000	Anon	32, 5, 5		Site Name Withheld		D1486/001/01	Bern, Bonn, EPS, HDir, S42, UKBAP, WCA5, LBAP[ANG, CON, DEN, FLI, GWY, SNP, WRE]	3
Rhinolophus hipposideros (Lesser Horseshoe Bat/Ystlum Pedol Lleiaf)	SJ2953 (Estimated (From Recorder's Map))	5 records, between 04/06/1997 and 12/06/2001	Matthew Ellis, Keith Davies, Paul Day, N. Thomas; Keith Davies, Amanda Davies, Karl Martin, Louise Tipping; Keith Davies, Matthew Ellis, Tim Hodnett; ... et al	70, 22++, 58, 34, 53	Bat Roost	Site Name Withheld	Comments Withheld	D0351/001/01	Bern, Bonn, EPS, HDir, S42, UKBAP, WCA5, LBAP[ANG, CON, DEN, FLI, GWY, SNP, WRE]	1
Passer domesticus (House Sparrow/Aderyn y To)	SJ2751	26/07/2011	Steven Davies	1+		Minera	BirdTrack.	D1297/005/01 (4610976)	S42, UKBAP, WBAm[RSPB], LBAP[CON, FLI, GWY]	1
Passer domesticus (House Sparrow/Aderyn y To)	SJ2752	26/07/2011	Steven Davies	1+		Minera, N	BirdTrack.	D1297/005/01 (4610977)	S42, UKBAP, WBAm[RSPB], LBAP[CON, FLI, GWY]	1
Falco tinnunculus (Kestrel/Cudyll Coch)	SJ2651	2 records, on 09/12/2007 and 28/02/2011	Steven Davies; Deborah Sainsbury	1, 1		Minera, Quarry	BirdTrack.	D1297/005/01 D1297/002/01	Bern, Bonn, CITES, S42, WBR[RSPB], LBAP[ANG, CON, DEN, FLI, GWY]	1
Meles meles (Badger/Mochyn Daear)	SJ2651	2 records, on 02/01/2002 and 30/10/2004	Clwyd Badger Group (CBG)		Badger Sett		CBG Ref: J61.0. Please contact CBG for more details.; CBG Ref: J69.0.	D0059/001/01	BA, LBAP[CON, DEN, FLI, WRE]	3
Natrix natrix (Grass Snake/Neidr y Gwair)	SJ2651	12/09/1981	L Farrell			Minera quarries		D0035/002/01 (2502143)	S42, UKBAP, WCA5, LBAP[ANG, CON, DEN, FLI, GWY, SNP]	4
Natrix natrix (Grass Snake/Neidr y Gwair)	SJ2651	2 records, both on 12/09/1981	Anon			Minera Quarries; MINERAL QUARRIES		D1076/001/01	S42, UKBAP, WCA5, LBAP[ANG, CON, DEN, FLI, GWY, SNP]	3
Falco tinnunculus (Kestrel/Cudyll Coch)	SJ2652	28/07/2011	Steven Davies	1		Gwynfryn, E	BirdTrack.	D1297/005/01 (4608612)	Bern, Bonn, CITES, S42, WBR[RSPB], LBAP[ANG, CON, DEN, FLI, GWY]	1
Meles meles (Badger/Mochyn Daear)	SJ2652	11/04/2002	Clwyd Badger Group (CBG)		Badger Sett		CBG Ref: J61.1. Please contact CBG for more details.	D0059/001/01 (4888005)	BA, LBAP[CON, DEN, FLI, WRE]	3
Passer domesticus (House Sparrow/Aderyn y To)	SJ2652	28/07/2011	Steven Davies	1+		Gwynfryn, E	BirdTrack.	D1297/005/01 (4610979)	S42, UKBAP, WBAm[RSPB], LBAP[CON, FLI, GWY]	1
Passer domesticus (House Sparrow/Aderyn y To)	SJ2851	26/07/2011	Steven Davies	1+		Coedpoeth	BirdTrack.	D1297/005/01 (4610975)	S42, UKBAP, WBAm[RSPB], LBAP[CON, FLI, GWY]	1
Meles meles (Badger/Mochyn Daear)	SJ2852	4 records, all on 22/11/2001	Clwyd Badger Group (CBG)		Badger Sett		CBG Ref: J64.0. Please contact CBG for more details.; CBG Ref: J64.1; CBG Ref: J64.2; CBG Ref: J64.3.	D0059/001/01	BA, LBAP[CON, DEN, FLI, WRE]	3
Carduelis cabaret (Lesser Redpoll/Llinos Bengoch Leiaf)	SJ2750	14/07/2011	Steven Davies	1+		Coedpoeth, The Wern	BirdTrack.	D1297/005/01 (4629762)	S42, UKBAP, WBR[RSPB], LBAP[CON, DEN]	1
Passer domesticus (House Sparrow/Aderyn y To)	SJ2750	14/07/2011	Steven Davies	1+		Coedpoeth, The Wern	BirdTrack.	D1297/005/01 (4610969)	S42, UKBAP, WBAm[RSPB], LBAP[CON, FLI, GWY]	1
Emberiza schoeniclus (Reed Bunting/Bras y Cyrs)	SJ2650	14/07/2011	Steven Davies	1		Ruabon Mountain, Esclusham Mountain, E	BirdTrack.	D1297/005/01 (4630216)	Bern, S42, UKBAP, WBAm[RSPB], LBAP[CON, DEN, FLI, GWY]	1

Category 2 Species (Global Red List, British Red Data Book, Nationally Rare & Scarce, Welsh Red and Amber Birds & Welsh Vascular Plant Red Data List, where these are not identified in Category 1) within 1000m - 38 records										
Taxon Name	Grid Reference	Date	Recorder(s)	Abundance	Record Type	Site Name	Comments	Dataset ID	Lists	V
Senecio cambrensis (Welsh Groundsel/Creulys Gymreig)	SJ270518 (Approximate)	1987	Anon			Minera		D0821/001/01 (4106571)	RD1, RD2, WVP, LBAP[CON, FLI]	3
Aegithalos caudatus (Long-tailed Tit/Titw Cynffon-Hir)	SJ279512	27/09/2012	Martyn Harris	Present		South of the Smellt, Denbighshire	A few. field record.	D0969/001/04 (4878761)	WBAm[RSPB]	1
Carduelis cannabina (Linnet/Llinos)	SJ282522	23/06/1997	Emily Meilleur			Plas Mostyn Mawr		D0229/002/01 (4434347)	Bern, WBR[RSPB], LBAP[ANG, CON, DEN, FLI, GWY]	1

Taxon Name	Grid Reference	Date	Recorder(s)	Abundance	Record Type	Site Name	Comments	Dataset ID	Lists	V
<i>Pyrrhula pyrrhula</i> (Common Bullfinch/Coch y Berllan)	SJ282522	23/06/1997	Emily Meilleur			Plas Mostyn Mawr		D0229/002/01 (4434348)	WBR[RSPB], LBAP[CON, DEN, FLI, GWY]	1
<i>Dianthus deltoides</i> (Maiden Pink/Penigan y Forwyn)	SJ2738250970	10/08/2010	Thomas, P.L.			New Brighton Lead Mine	Below anthill; had flowered.	D1169/001/02 (4440818)	RD1, RD2, WVP, LBAP[ANG]	3
<i>Dianthus deltoides</i> (Maiden Pink/Penigan y Forwyn)	SJ273509	2000	Anon			New Brighton		D0216/001/03 (3999868)	RD1, RD2, WVP, LBAP[ANG]	1
<i>Pyrola rotundifolia</i> subsp. <i>maritima</i> (Wintergreen)	SJ264519	2000	Anon			Minera		D0216/001/03 (3994657)	RD2, LBAP[ANG]	4
<i>Gyalidea lecideopsis</i> (A Lichen)	SJ2751 (Approximate)	Feb 2003	Steve Chambers			Denbigh: Minera Hill	New to Wales. On upper sides of limestone chips & small angular stones embedded in turf on old mine site.	D0822/001/01 (4106287)	RD1, RD2	3
<i>Hirundo rustica</i> (Swallow/Gwennol)	SJ2751	26/07/2011	Steven Davies	1+		Minera	BirdTrack.	D1297/005/01 (4607261)	Bern, WBAm[RSPB], LBAP[ANG, CON, GWY]	1
<i>Delichon urbicum</i> (House Martin/Gwennol y Bondo)	SJ2752	26/07/2011	Steven Davies	1+		Minera, N	BirdTrack.	D1297/005/01 (4610836)	Bern, WBAm[RSPB], LBAP[CON]	1
<i>Hirundo rustica</i> (Swallow/Gwennol)	SJ2752	26/07/2011	Steven Davies	1+		Minera, N	BirdTrack.	D1297/005/01 (4607262)	Bern, WBAm[RSPB], LBAP[ANG, CON, GWY]	1
<i>Anthus pratensis</i> (Meadow Pipit/Corhedydd y Waun)	SJ2651	14/07/2011	Steven Davies	1+		Minera, Quarry	BirdTrack.	D1297/005/01 (4629893)	Bern, WBAm[RSPB], LBAP[CON]	1
<i>Carduelis cannabina</i> (Linnet/Llinos)	SJ2651	14/07/2011	Steven Davies	5		Minera, Quarry	BirdTrack.	D1297/005/01 (4628874)	Bern, WBR[RSPB], LBAP[ANG, CON, DEN, FLI, GWY]	1
<i>Hirundo rustica</i> (Swallow/Gwennol)	SJ2651	14/07/2011	Steven Davies	1+		Minera, Quarry	BirdTrack.	D1297/005/01 (4607248)	Bern, WBAm[RSPB], LBAP[ANG, CON, GWY]	1
<i>Senecio cambrensis</i> (Welsh Groundsel/Creulys Gymreig)	SJ2651	1975	Anon			Minera		D0216/001/03 (4000659)	RD1, RD2, WVP, LBAP[CON, FLI]	1
<i>Turdus philomelos</i> (Song Thrush/Bronfraith)	SJ2651	14/07/2011	Steven Davies	1		Minera, Quarry	BirdTrack.	D1297/005/01 (4630350)	BDir, WBAm[RSPB], LBAP[ANG, CON, DEN, FLI, GWY, SNP, WRE]	1
<i>Anthus pratensis</i> (Meadow Pipit/Corhedydd y Waun)	SJ2652	28/07/2011	Steven Davies	2		Gwynfryn, E	BirdTrack.	D1297/005/01 (4629904)	Bern, WBAm[RSPB], LBAP[CON]	1
<i>Delichon urbicum</i> (House Martin/Gwennol y Bondo)	SJ2652	28/07/2011	Steven Davies	1+		Gwynfryn, E	BirdTrack.	D1297/005/01 (4610838)	Bern, WBAm[RSPB], LBAP[CON]	1
<i>Gymnostomum calcareum</i> (Blunt-leaf Tufa-moss)	SJ2652 (Estimated (Centroid of Site Name))	1914	J. C. Wilson, D. A. Jones			Minera/Bwlchgwyn		D0308/057/01 (2699470)	RD2	1
<i>Hirundo rustica</i> (Swallow/Gwennol)	SJ2652	28/07/2011	Steven Davies	1+		Gwynfryn, E	BirdTrack.	D1297/005/01 (4607265)	Bern, WBAm[RSPB], LBAP[ANG, CON, GWY]	1
<i>Pyrrhula pyrrhula</i> (Common Bullfinch/Coch y Berllan)	SJ2652	28/07/2011	Steven Davies	1+		Gwynfryn, E	BirdTrack.	D1297/005/01 (4608296)	WBR[RSPB], LBAP[CON, DEN, FLI, GWY]	1
<i>Turdus philomelos</i> (Song Thrush/Bronfraith)	SJ2652	28/07/2011	Steven Davies	1		Gwynfryn, E	BirdTrack.	D1297/005/01 (4630355)	BDir, WBAm[RSPB], LBAP[ANG, CON, DEN, FLI, GWY, SNP, WRE]	1
<i>Apus apus</i> (Common Swift/Gwennol Ddu)	SJ2851	26/07/2011	Steven Davies	1+		Coedpoeth	BirdTrack.	D1297/005/01 (4608976)	WBAm[RSPB]	1
<i>Anthus pratensis</i> (Meadow Pipit/Corhedydd y Waun)	SJ2750	14/07/2011	Steven Davies	1+		Coedpoeth, The Wern	BirdTrack.	D1297/005/01 (4629895)	Bern, WBAm[RSPB], LBAP[CON]	1
<i>Apus apus</i> (Common Swift/Gwennol Ddu)	SJ2750	14/07/2011	Steven Davies	1+		Coedpoeth, The Wern	BirdTrack.	D1297/005/01 (4608970)	WBAm[RSPB]	1
<i>Bryum pallescens</i> (Tall-clustered Thread-moss)	SJ2750	05/04/2008	British Bryological Society Meeting			Minera Lead Mines Visitor Centre	Habitat for location: spoil, wet flushes and sallow-ash scrub, disused railway etc.	D1075/001/03 (4899138)	RD2, LBAP[FLI]	3
<i>Carduelis cannabina</i> (Linnet/Llinos)	SJ2750	14/07/2011	Steven Davies	1+		Coedpoeth, The Wern	BirdTrack.	D1297/005/01 (4628875)	Bern, WBR[RSPB], LBAP[ANG, CON, DEN, FLI, GWY]	1
<i>Delichon urbicum</i> (House Martin/Gwennol y Bondo)	SJ2750	14/07/2011	Steven Davies	1+		Coedpoeth, The Wern	BirdTrack.	D1297/005/01 (4610828)	Bern, WBAm[RSPB], LBAP[CON]	1
<i>Hirundo rustica</i> (Swallow/Gwennol)	SJ2750	14/07/2011	Steven Davies	1+		Coedpoeth, The Wern	BirdTrack.	D1297/005/01 (4607250)	Bern, WBAm[RSPB], LBAP[ANG, CON, GWY]	1
<i>Microbryum starckeanum</i> (Starke's Pottia)	SJ2750	05/04/2008	British Bryological Society Meeting			Minera Lead Mines Visitor Centre	Habitat for location: spoil. Habitat for taxon: spoil.	D1075/001/03 (4929819)	RD2, LBAP[CON, DEN]	3
<i>Phylloscopus trochilus</i> (Willow Warbler/Telor yr Helyg)	SJ2750	14/07/2011	Steven Davies	1		Coedpoeth, The Wern	BirdTrack.	D1297/005/01 (4630453)	WBR[RSPB], LBAP[CON]	1
<i>Sylvia communis</i> (Common Whitethroat/Llwydfron)	SJ2750	14/07/2011	Steven Davies	1		Coedpoeth, The Wern	BirdTrack.	D1297/005/01 (4629134)	WBAm[RSPB], LBAP[CON]	1
<i>Turdus philomelos</i> (Song Thrush/Bronfraith)	SJ2750	14/07/2011	Steven Davies	1		Coedpoeth, The Wern	BirdTrack.	D1297/005/01 (4630351)	BDir, WBAm[RSPB], LBAP[ANG, CON, DEN, FLI, GWY, SNP, WRE]	1
<i>Anthus pratensis</i> (Meadow Pipit/Corhedydd y Waun)	SJ2650	14/07/2011	Steven Davies	1+		Ruabon Mountain, Esclusham Mountain, E	BirdTrack.	D1297/005/01 (4629896)	Bern, WBAm[RSPB], LBAP[CON]	1

Taxon Name	Grid Reference	Date	Recorder(s)	Abundance	Record Type	Site Name	Comments	Dataset ID	Lists	V
<i>Carduelis cannabina</i> (Linnet/Llinos)	SJ2650	14/07/2011	Steven Davies	1+		Ruabon Mountain, Esclusham Mountain, E	BirdTrack.	D1297/005/01 (4628873)	Bern, WBR[RSPB], LBAP[ANG, CON, DEN, FLI, GWY]	1
<i>Hirundo rustica</i> (Swallow/Gwennol)	SJ2650	14/07/2011	Steven Davies	1+		Ruabon Mountain, Esclusham Mountain, E	BirdTrack.	D1297/005/01 (4607251)	Bern, WBAm[RSPB], LBAP[ANG, CON, GWY]	1
<i>Sylvia communis</i> (Common Whitethroat/Llwydfron)	SJ2650	14/07/2011	Steven Davies	1		Ruabon Mountain, Esclusham Mountain, E	BirdTrack.	D1297/005/01 (4629136)	WBAm[RSPB], LBAP[CON]	1
<i>Turdus philomelos</i> (Song Thrush/Bronfraith)	SJ2650	14/07/2011	Steven Davies	1		Ruabon Mountain, Esclusham Mountain, E	BirdTrack.	D1297/005/01 (4630352)	BDir, WBAm[RSPB], LBAP[ANG, CON, DEN, FLI, GWY, SNP, WRE]	1

Category 3 Species (LBAP Species not identified under Categories 1 & 2, Locally Important species as specified by local experts) within 1000m - 39 records										
Taxon Name	Grid Reference	Date	Recorder(s)	Abundance	Record Type	Site Name	Comments	Dataset ID	Lists	V
<i>Populus nigra</i> (Black-poplar/Poplysen Ddu)	SJ27885127 (Supplied by Original Recorder)	15/09/2006	Lt Col Ken Griffiths	3 Male		Minera; River Clywedog - West bank		D1446/001/01 (3699011)	LI[VC52]	4
<i>Aeshna cyanea</i> (Southern Hawker/Gwas Neidr y De)	SJ269512	15/07/1995	Rob W Whitehead	1 Adult		Denbighshire - Minera Lead Mines CP	Grid reference type: Estimated from Map.	D0067/001/03 (4849063)	LBAP[SNP]	3
<i>Argynnis aglaja</i> (Dark Green Fritillary/Britheg Werdd)	SJ269512 (Centroid)	15/07/1995	Rob W. Whitehead	1	Field record / observation	Minera Lead Mines CP	female.	D0127/001/02 (522577)	LBAP[FLI, GWY]	3
<i>Rosa micrantha</i> (Small-flowered Sweet-briar/Drysien Bêr Fân-Flodeuog)	SJ275509	29/06/2001	Green, J.A.			Minera		D1169/001/02 (4441989)	LBAP[GWY]	3
<i>Accipiter nisus</i> (Sparrowhawk/Gwalch Glas)	SJ2751	26/07/2011	Steven Davies	1		Minera	BirdTrack.	D1297/005/01 (4609621)	Bonn, CITES, LBAP[CON]	1
<i>Bryum algovicum</i> (Drooping Thread-moss)	SJ2751	1950 - 1988	Hill, M.O.			Minera SSSI		D1075/001/03 (4910222)	LBAP[CON]	3
<i>Bryum alpinum</i> (Alpine Thread-moss)	SJ2751	2 records, in 1917 and 1950	Jones, D.A.; Hill, M.O.			Minera SSSI		D1075/001/03	LBAP[CON]	3
<i>Buteo buteo</i> (Buzzard/Bwncath)	SJ2751	26/07/2011	Steven Davies	1		Minera	BirdTrack.	D1297/005/01 (4608442)	Bonn, CITES, LBAP[CON]	1
<i>Corvus corax</i> (Common Raven/Cigfran)	SJ2751	26/07/2011	Steven Davies	2		Minera	BirdTrack.	D1297/005/01 (4628977)	LBAP[CON]	1
<i>Cyanistes caeruleus</i> (Blue Tit/Titw Tomos Las)	SJ2751	26/07/2011	Steven Davies	1+		Minera	BirdTrack.	D1297/005/01 (4607693)	Bern, LBAP[CON]	1
<i>Sitta europaea</i> (Wood Nuthatch/Delor y Cnau)	SJ2751	26/07/2011	Steven Davies	2		Minera	BirdTrack.	D1297/005/01 (4611741)	Bern, LBAP[CON]	1
<i>Weissia controversa</i> var. <i>densifolia</i> (A Moss)	SJ2751 (Estimated Centroid of Site Name))	1972	M. O. Hill			Minera	On waste from lead workings.	D0308/057/01 (2699980)	LBAP[DEN]	1
<i>Columba oenas</i> (Stock Pigeon/Colomen Wylt)	SJ2752	28/07/2011	Steven Davies	2		Minera, N	BirdTrack.	D1297/005/01 (4630376)	BDir, LBAP[GWY]	1
<i>Buteo buteo</i> (Buzzard/Bwncath)	SJ2651	2 records, on 09/12/2007 and 28/02/2011	Deborah Sainsbury; Steven Davies	2, 1		Minera, Quarry	BirdTrack.	D1297/002/01 D1297/005/01	Bonn, CITES, LBAP[CON]	1
<i>Carduelis carduelis</i> (Goldfinch/Nico)	SJ2651	14/07/2011	Steven Davies	1+		Minera, Quarry	BirdTrack.	D1297/005/01 (4609833)	Bern, LBAP[ANG, CON]	1
<i>Corvus corax</i> (Common Raven/Cigfran)	SJ2651	28/02/2011	Steven Davies	1		Minera, Quarry	BirdTrack.	D1297/005/01 (4628944)	LBAP[CON]	1
<i>Cyanistes caeruleus</i> (Blue Tit/Titw Tomos Las)	SJ2651	28/02/2011	Steven Davies	1+		Minera, Quarry	BirdTrack.	D1297/005/01 (4607597)	Bern, LBAP[CON]	1
<i>Parus major</i> (Great Tit/Titw Mawr)	SJ2651	28/02/2011	Steven Davies	1+		Minera, Quarry	BirdTrack.	D1297/005/01 (4610342)	Bern, LBAP[CON]	1
<i>Pohlia wahlenbergii</i> (Pale Glaucous Thread-moss)	SJ2651	1950 - 1988	Hill, M.O.			Minera SSSI		D1075/001/03 (4933554)	LBAP[CON]	3
<i>Sylvia atricapilla</i> (Blackcap/Telor Penddu)	SJ2651	14/07/2011	Steven Davies	2		Minera, Quarry	BirdTrack Male feeding juvenile.	D1297/005/01 (4611902)	LBAP[CON]	1
<i>Weissia controversa</i> var. <i>densifolia</i> (A Moss)	SJ2651	1972	Hill, M.O.			Minera SSSI		D1075/001/03 (4951403)	LBAP[DEN]	3
<i>Carduelis carduelis</i> (Goldfinch/Nico)	SJ2652	28/07/2011	Steven Davies	1		Gwynfryn, E	BirdTrack.	D1297/005/01 (4609840)	Bern, LBAP[ANG, CON]	1
<i>Cyanistes caeruleus</i> (Blue Tit/Titw Tomos Las)	SJ2652	28/07/2011	Steven Davies	1		Gwynfryn, E	BirdTrack.	D1297/005/01 (4607694)	Bern, LBAP[CON]	1
<i>Parus major</i> (Great Tit/Titw Mawr)	SJ2652	28/07/2011	Steven Davies	1		Gwynfryn, E	BirdTrack.	D1297/005/01 (4610407)	Bern, LBAP[CON]	1
<i>Phylloscopus collybita</i> (Common Chiffchaff/Siff-Siaff)	SJ2652	28/07/2011	Steven Davies	1+		Gwynfryn, E	BirdTrack.	D1297/005/01 (4628757)	LBAP[CON]	1
<i>Prunella modularis</i> (Dunnock/Llwyd y Gwrych)	SJ2652	28/07/2011	Steven Davies	1		Gwynfryn, E	BirdTrack.	D1297/005/01 (4610757)	Bern, LBAP[CON]	1

Taxon Name	Grid Reference	Date	Recorder(s)	Abundance	Record Type	Site Name	Comments	Dataset ID	Lists	V
<i>Carduelis carduelis</i> (Goldfinch/Nico)	SJ2851	26/07/2011	Steven Davies	1		Coedpoeth	BirdTrack.	D1297/005/01 (4609839)	Bern, LBAP[ANG, CON]	1
<i>Campylium stellatum</i> var. <i>protensum</i> (A Moss)	SJ2750	1950 - 1988	Hill, M.O.			Minera SSSI		D1075/001/03 (4900864)	LBAP[CON]	3
<i>Columba oenas</i> (Stock Pigeon/Colomen Wyllt)	SJ2750	14/07/2011	Steven Davies	1		Coedpoeth, The Wern	BirdTrack.	D1297/005/01 (4630375)	BDir, LBAP[GWY]	1
<i>Dicranum bonjeanii</i> (Crisped Fork-moss)	SJ2750	05/04/2008	British Bryological Society Meeting			Minera Lead Mines Visitor Centre	Habitat for location: spoil, wet flushes and sallow-ash scrub, disused railway etc.	D1075/001/03 (4904199)	LBAP[CON]	3
<i>Eurhynchium praelongum</i> (Common Feather-moss)	SJ2750	05/04/2008	British Bryological Society Meeting			Minera Lead Mines Visitor Centre	Habitat for location: spoil, wet flushes and sallow-ash scrub, disused railway etc.	D1075/001/03 (4918687)	LBAP[CON]	3
<i>Motacilla alba</i> subsp. <i>yarrellii</i> (Pied Wagtail/Siglen Fraith)	SJ2750	14/07/2011	Steven Davies	1		Coedpoeth, The Wern	BirdTrack.	D1297/005/01 (4630078)	Bern, LBAP[CON]	1
<i>Orthotrichum pulchellum</i> (Elegant Bristle-moss)	SJ2750	05/04/2008	British Bryological Society Meeting			Minera Lead Mines Visitor Centre	Habitat for location: spoil, wet flushes and sallow-ash scrub, disused railway etc.	D1075/001/03 (4924419)	LBAP[CON, FLI]	3
<i>Phylloscopus collybita</i> (Common Chiffchaff/Siff-Siaff)	SJ2750	14/07/2011	Steven Davies	1		Coedpoeth, The Wern	BirdTrack.	D1297/005/01 (4628754)	LBAP[CON]	1
<i>Prunella modularis</i> (Dunnock/Llwyd y Gwrych)	SJ2750	14/07/2011	Steven Davies	1		Coedpoeth, The Wern	BirdTrack.	D1297/005/01 (4610750)	Bern, LBAP[CON]	1
<i>Sanionia uncinata</i> (Sickle-leaved Hook-moss)	SJ2750	05/04/2008	British Bryological Society Meeting			Minera Lead Mines Visitor Centre	Habitat for location: spoil, wet flushes and sallow-ash scrub, disused railway etc.	D1075/001/03 (4939696)	LBAP[CON]	3
<i>Weissia controversa</i> var. <i>controversa</i> (A Moss)	SJ2750	05/04/2008	British Bryological Society Meeting			Minera Lead Mines Visitor Centre	Habitat for location: spoil, wet flushes and sallow-ash scrub, disused railway etc.	D1075/001/03 (4946369)	LBAP[DEN]	3

Statutory Sites intersecting 1000m buffer	SSSI: RUABON/LLANTYSILIO MOUNTAINS AND MINERA (884m), AONB: BRYNIAU CLWYD A DYFFRYN DYFRDW (522m)
Wildlife Sites within 1000m (C=Candidate)	New Brighton (W215) (763m), Plas Mostyn Mawr (W211) (787m), Roseburn Fields (W212) (504m), Graig Fawr, Minera (W05 RIGS) (884m), Pen-Y-Nant, Minera (W249) (551m), The Smelt (W214) (146m)
NWWT Reserves within 1000m	None
RSPB Reserves within 1000m	None
RIGS within 1000m	Graig Fawr Minera (914m) - Contact Cofnod for further details
Habitat type at application grid reference	Improved Grassland
Habitat type(s) within 1000m	Acid/Neutral Inland Cliff, Amenity Grassland, Bracken, Buildings, Dense Scrub, Dry Acid Heath, Ephemeral/Short Perennial, Gardens, Improved Grassland, Not Accessed Land, Planted Coniferous Woodland, Planted Mixed Woodland, Semi-improved Neutral Grassland, Semi-natural Broad-leaved Woodland, Track, Unimproved Calcareous Grassland
Ancient Woodland within 1000m	Ancient Semi Natural Woodland, Restored Ancient Woodland Site

Important Issues

1. Usage of the above information is governed by Cofnod's **Terms and Conditions of Data Release** (available from Cofnod on request).
2. Records shown in bold typeface are sensitive species records. In this public version of the original report, the resolution of sensitive species grid references have been reduced and site names and comments have been removed.
3. Past records of presence of a habitat or species do not guarantee continued occurrence; absence of records does not imply absence of a species, merely that no records are held at Cofnod; Cofnod cannot guarantee the accuracy of supplied data; copyright of records remains with the original recorder.

Notes

This report should be used in conjunction with any relevant maps, where these are supplied.

Cofnod uses a search system which reports species (usually high priority or protected species) within a specified search radius or buffer. Where required a search will also include high priority 'Mobile Species', such as bats, otters, amphibians and certain invertebrates, which lie outside the specified search radius. These species are highlighted on the report with an **asterisk**. They have been selected as 'Mobile Species' as their territory (possibly due to foraging activity or life cycle) could intersect with the search radius. The list of 'Mobile Species', invasive non-native plant species and species categories used in Cofnod's reporting system can be found at <http://www.cofnod.org.uk/Enquiries.aspx> under the 'Species Categories' tab.

Records with 4 figure grid references are displayed as 1km squares on any relevant maps. They are listed separately in reports and highlighted in grey *italic* script.

Please note that while we hold Wales Raptor Study Group data for North East Wales we are only permitted to release it to a limited number of trusted partners. We can provide contact details if you would like to contact the Raptor Study Group directly to request species information.

Sites - Designated Sites and non-designated Wildlife Sites within 50m of the grid reference are highlighted in red. Wildlife Sites which remain unconfirmed by the relevant Local Authority are given 'Candidate' status and are displayed with the (c) suffix. The following reasons for candidate status apply: 1. Anglesey and Flintshire Wildlife Sites were identified by survey but have not been formally confirmed. 2. Conwy and Gwynedd Wildlife Sites were identified by survey and air photos and remain candidate until evaluated using selection criteria.

Dataset ID - All species records within the reports include Dataset ID codes, which can be used to find the relevant Metadata, using the **Data We Hold** page on the Cofnod website (www.cofnod.org.uk/DataWeHold.aspx). The number below the Dataset ID is the individual record ID. Please quote this if you need more information on a specific record.

'V' column - Record Verification Level. The following abbreviations apply: **1**: Unassessed, **2**: Unconfirmed, **3**: Considered Correct by Cofnod, **4**: Considered Correct by Expert. Dataset Categories and Record Verification Levels are explained in more detail within Cofnod's policy on Data Quality, available from our website.

Maps - This report should be used in conjunction with any relevant maps, where these are supplied. Where Statutory protected sites (e.g. SSSI, SAC, SPA) are displayed on Cofnod maps, more details can be obtained from Countryside Council for Wales. (Visit their website at <http://www.ccw.gov.uk/interactive-maps/official-maps-search.aspx>) Where a Phase 1 Habitat map has been supplied, this illustrates habitats mapped by CCW as part of their Habitat Survey of Wales 1979 to 1997. A separate legend is also supplied.

Lists

BA - Protection of Badgers Act, **BDir** - EU Birds Directive, **Bern** - The Bern Convention on the Conservation of European Wildlife and Natural Habitats, **Bonn** - The Bonn Convention on the Conservation of Migratory Species of Wild Animals, **CCWP** - CCW Priority Species List, **CITES** - Convention on International Trade in Endangered Species, **EPS** - European Protected Species, **HDir** - EU Habitats Directive, **LI** - Locally Important Species, identified by the County Recorder as being of particular importance in the specified Vice-County (see below for a list of Vice-Counties) N.B: Only available for certain species groups and certain areas, **LBAP** - Local Biodiversity Action Plan, **RD1** - Red Data Book listing based on IUCN guidelines, **RD2** - Red Data Book listing not based on IUCN guidelines (Nationally Rare and Scarce), **S42** - Natural Environment and Rural Communities Act 2006 (Section 42), **UKBAP** - UK Biodiversity Action Plan Priority Species, **WBAm[RSPB]** - Birds of Conservation Concern 2002-07 - Welsh Amber listed birds (not based on IUCN criteria), **WBR[RSPB]** - Birds of Conservation Concern 2002-07 - Welsh Red listed birds (not based on IUCN criteria), **WCA1** - Wildlife & Countryside Act 1981 Schedule 1, **WCA5** - Wildlife & Countryside Act 1981 Schedule 5, **WCA8** - Wildlife & Countryside Act 1981 Schedule 8, **WVP** - IUCN Threat Listing of Welsh Vascular Plants

Abbreviations

ANG - Isle of Anglesey, **CON** - Conwy, **DEN** - Denbighshire, **FLI** - Flintshire, **GWY** - Gwynedd, **SNP** - Snowdonia National Park, **WRE** - Wrexham, **LBAP** - Local Biodiversity Action Plan, **NWWT** - North Wales Wildlife Trust, **RSPB** - Royal Society for the Protection of Birds, **RIGS** - Regionally Important Geodiversity Sites, **WS** - Wildlife Site

Vice-Counties

48 - Meirionethshire, **49** - Caernarfonshire, **50** - Denbighshire, **51** - Flintshire, **52** - Anglesey

Contact Us

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APPENDIX 5

Categorisation of trees for their potential to support roosting bats



Categorisation of trees for their potential to support roosting bats as per the Bat Conservation Trust Bat Surveys - Good Practice Guidelines (2012):

Tree Category and Description	Likely Mitigation Requirements
Known or confirmed roost	The tree can only be felled under EPS license following the installation of appropriate habitat as a replacement.
Category 1* Trees with multiple highly suitable features capable of supporting larger roosts	Further dusk/dawn bat activity surveys required to confirm the presence/absence of bats (May to September only). If bats are found refer to "Known or confirmed roost" above. If no bats are found roosting then the tree should be treated as Category 2 and felled using Reasonable Avoidance Measures (RAMs).
Category 1 Trees with definite bat potential, supporting fewer suitable features than category 1* trees of with potential to be used by single bats	Further dusk/dawn bat activity surveys required to confirm the presence/absence of bats (May to September only). If bats are found refer to "Known or confirmed roost" above. If no bats are found roosting then the tree should be treated as Category 2 and felled using Reasonable Avoidance Measures (RAMs).
Category 2 Trees with no obvious potential, although the tree is of an age and size that elevated surveys may result in cracks or crevices being found; or the tree supports some features which may have some limited potential to support roosting bats.	Trees may be felled using Reasonable Avoidance Measures (RAMs). All works should cease and appropriate advice should be sought if any bats are found.
Category 3 Trees with no potential to support roosting bats.	No mitigation for bats required.



APPENDIX 6

Reptile Survey



SURVEY METHODOLOGY

In late August 2014 40 artificial refuges (0.5mx0.5m sections of corrugated bitumen roofing sheet) were placed in areas of suitable reptile habitat on the proposed development site at Minera Hall Road. The artificial refuges were placed in groups of 5 at 8 locations on site. The locations of the artificial refuges are shown in Figure 1 below:

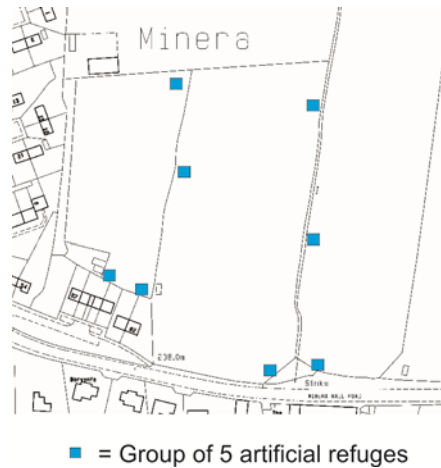


Figure 1 – Reptile artificial refuge locations

The survey sheets were placed in sunny areas adjacent to suitable cover for reptiles. Reptiles, particularly grass snakes and slow worm, will bask on top of or take refuge below these sheets making them easier to detect.

The survey sheets were left in place for two weeks prior to the start of survey visits in order to “bed-down” and to allow reptiles to find and begin to utilise the refuge sites.

Artificial refuges were checked over eight days in late September and early October. Refuges were checked in the morning between 9am and 10am. During the survey visits basking animals were also searched for by examining likely habitat features such as scrub/bracken edges, banks and hard-standing.

Survey Visit:	Date:	Temperature:
1	16/09/14	18°C
2	19/09/14	17°C
3	23/09/14	15°C
4	26/09/14	14°C
5	30/09/14	14°C
6	01/10/14	17°C
7	03/10/14	19°C
8	07/10/14	17°C

Conditions on all survey days were fair with sufficient sun to warm refuges.

REPTILE SURVEY RESULTS

No reptiles were identified on site during the course of the survey.

